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Messhouse Management at the Arrowrock Dam

By Ray R. Clawson*

In the construction of the Arrowrock Dam near Boise, Idaho, it has been necessary to operate messes of sufficient capacity to accommodate 800 to 900 men. This operation, extending over a period of about four years, has given a good opportunity to make studies of possible interest to contractors and engineers.

In these days of unusual agitation on account of the "high cost of living" the management of messhouses on large construction work where numbers of healthy laboring men are fed at an established price per meal becomes a very interesting problem. The generally established price on work of this nature in the West is 25c. per meal. For this price it is necessary that the men be fed a substantial ration, including meat and other food, and it is usually expected by the management that a small margin of profit will be made.

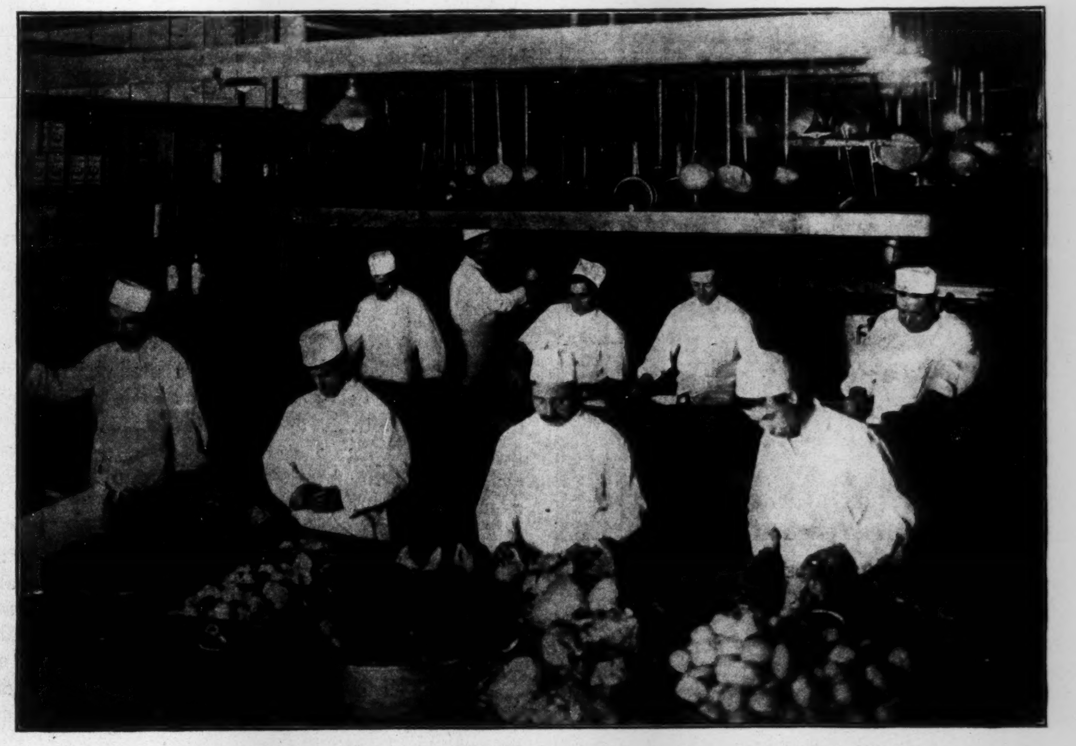

Fig. 1. Kitchen Force Preparing Vegetables in Arrowrock Dam Messhouse

The satisfactory operation of the messhouse is one of the controlling elements in keeping an efficient force on construction work. Those in charge of the work soon learn that it is economy to serve good meals, even at a loss, to the mess.

Dining-Room Service

Good service is as important as good food. No matter how much time the men may have for eating, they are generally in a hurry. Meals should therefore always be served on time, and particular effort should be made to give prompt service.

At Arrowrock small tables accommodating eight persons are provided, as this number may be served from one set of dish-ups. These small tables have been found to be a decided improvement over the long tables commonly used in construction camps. Separate dining rooms are provided for the different classes of employees—one room for foremen, mechanics, carpenters, etc.; one for American laborers and one for foreign laborers. The employees are better satisfied if they are classified in this manner at table, as they are better able to select their associates. At Arrowrock very little trouble has been given by a desire on the part of any one of the above-mentioned classes to encroach upon the others, after they have been once classified.

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Service is made "family style"; that is, all food is on the table at the time the meal is called. With this method one waiter can attend to five tables of eight persons each in an efficient manner. When the force is large enough to justify it, a head waiter is employed to supervise the setting up of tables and the work of preparing the cold part of the meal; and it is his duty to see that all dishes are thoroughly cleaned before they are placed on the tables, as this is one of the things which has to be carefully watched over in camps.

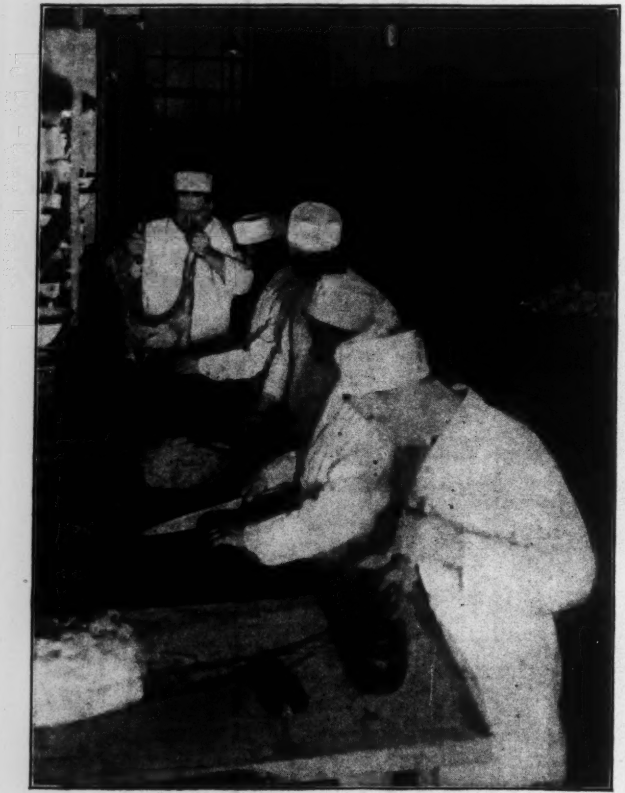

FIG. 2. PREPARING MEAT IN THE MESSHOUSE KITCHEN AT THE ARROWROCK DAM

KITCHEN EQUIPMENT

Although the messhouse may be considered a small feature of a construction job, there is probably no place where labor-saving equipment can be used to greater advantage. Every possible piece of equipment should be power-driven.

At Arrowrock, where electrical power is available, the following pieces of motor-driven equipment have been used with very satisfactory results: Vegetable peeler, dish-washing machine, coffee grinder, combination potato and vegetable masher, and meat grinder.

The vegetable peeler and dish-washing machine are the two greatest labor savers, and the character of service obtained with them is much better than it would be possible to obtain by hand.

The center range, composed of six sections, has a total cooking surface of 72 sq.ft. There is a steam-table, which has proved to be a very economical piece of equipment for carrying cooked foods from one meal to the next without loss or deterioration. There is also a steam cooker for steaming vegetables, boiling eggs, making puddings, etc., where there is danger of burning if cooked on the range.

On account of the great number of dishes required in serving as large a number as we are handling at Arrowrock, we have found it advisable to use enamelware dishes, as the dish-washing machine is particularly efficient in cleaning this ware. In smaller messes, however, I have known of heavy hotel chinaware dishes being used with success.

CHOICE AND UTILIZATION OF FOODSTUFFS

The economy in the preparation and serving of food is not so much in reducing what is actually eaten by the men as it is in keeping the waste down to the minimum. The most important factor in the economical use of foodstuffs is therefore the utilization of all food cooked and the preparation of food in such a manner that the portion left over may be modified in some form and used again at a subsequent meal. It must always be borne in mind that the class of men being fed on work of this nature have no interest in the economical use of food. The food must therefore be prepared in such a way that any unusual waste may be detected.

Meat is by far the most expensive item of diet, and therefore more attention must be given to its use than to that of any other item. At Arrowrock, where physical conditions make it necessary to keep meat for a considerable length of time, it has been necessary to provide refrigeration facilities. Our refrigeration plant is what is commonly called the "brine system." We have one cold-storage room with sufficient capacity for storing about 26,000 lb. of meat and another smaller room for storing eggs, butter, etc. Provision is also made for the freezing of forty 50-lb. cakes of ice at one time, and we are able to produce ice in about 20 hr. continuous running of the plant. This is used around the work in warm weather, and is sold to the families in the camp, of which there are as many as 150 or 200 during most of the year.

Purchase of meat is made by the carcass. Pork sides and trimmings are made into pork sausage and stuffed into casings, after a sufficient quantity has been salted to provide all of the salt bacon required. Hogs' heads, together with other trimmings, are made into headcheese and stuffed into casings and served cold. After a little experience with the requirements a definite system can be worked out so that every particle of usable meat can be used as wholesome food.

From actual experience and test at Arrowrock it has been found much more economical to remove all bones from the meat before it is cooked. These bones are then used for soup stock, and in this manner every particle of meat is cooked from them and utilized. If the bones are cooked and served with the meat, a considerable portion of meat is always left on the bones by the men when eating, and this is an absolute loss. The serving of excess fat meat is also avoided, because if only the actual edible meat is served it will lessen the tendency on the part of the men to be wasteful in the use of meat. Excess fat is absolute waste if served, but can be trimmed off before cooking and rendered into marketable lard or tallow.

A lard-rendering kettle has been provided, and all fats are carefully cared for and rendered. Sufficient lard has been manufactured for use at the mess and for sale to the families who desire it, and occasional shipments of pure lard are made to wholesale merchants in the vicinity, where it brings the same price as the packing-house product. All tallow and refuse fats are rendered, and practically all of this product has been transferred to the machine shop, where it has been manufactured into "cable dressing," which has been used on the work with good results. Credit is given to the messhouse operations for the market price of this tallow, and still a considerable saving has been made in the cost of cable dressing after allowing this price. Occasional shipments of excess tallow have been made to the nearest soap-making establishments. It has been found to be poor economy to make this tallow and grease into "home-made soap," as we have been able to obtain 5c. per lb. for it at the soap works, and common laundry soap can be bought for less and gives much better results. In this manner the general tendency to use home-made soap extravagantly under the assumption that it is cheap is also done away with.

ORDERING SEASONABLE ARTICLES

It is necessary that constant attention be given to ordering to avoid the purchase of articles which are out of season or on which the market price for one reason or another may be prohibitively high. Fresh berries, fruits and green vegetables may be served plentifully in the height of the season, but should not be served until the full crop is on the market and the price is low. If the market is carefully watched, practically all perishable produce, even though it may be regarded as a luxury, may be economically served at some time of the year. For example, it is generally thought that fruits such as bananas and oranges cannot be served in a mess for 25c. per meal; but at certain times of the year, in the height of season, when the local market may be in a slump on account of an oversupply, these may be served prepared in a salad at a saving over the ordinary canned fruits. Watermelons and cantaloups can be used to the exclusion of all fruits after the full supply is on the market and the price is reduced. Constant effort should be made to find something in the market on which the price is reasonable and which may reduce the consumption of meat. Practically anything which may be served which will reduce the consumption of meat will prove to be an economy. Moreover, the variety thus afforded is worth while, even if no special saving is effected thereby.

The views in Figs. 1 and 2 show the messhouse employees at work preparing the food to be set before the men.

COSTKEEPING

A sufficient charge is made against messhouse operations each month for rental to absorb the cost of messhouse construction during the time of construction. A monthly charge is also made to cover the depreciation of equipment.

It is very necessary that a careful record of cost be kept and reports prepared each month to show the results accomplished. Classification of cost should be made into the principal items of cost, so that the items may be compared from month to month. The following cost accounts have been used in connection with the messhouse operations at Arrowrock:

Labor, cooks and helpers.
Labor, miscellaneous.
Subsistence.
Supplies.
Utensils.
Rental.
Fuel.
Lights.
Depreciation of equipment.
General and overhead expense.

By comparison of the cost report with the preceding reports it is possible to detect where the cost is running high, and an effort can then be made to reduce this item. After the mess has been operated for a sufficient length of time, certain standards of cost will be established, and effort can then be made by watching these cost reports to maintain these standards. Different local conditions, such as transportation facilities, etc., make it impracticable to compare cost data thus assembled covering operations in different localities, but these data are very valuable for comparison of cost of operation of messes in the same locality where the conditions are similar.

From data kept under this classification it is possible to prepare at the end of the month cost reports in the following form:

DEPARTMENT OF THE INTERIOR
United States Reclamation Service
Boise Project, Idaho

Field Report of Messhouse Operations at Main Mess, Arrowrock, during the month of September, 1914.

Account Nos. 730 to 739

DEBITS			CREDITS		
Inventory:			Collections:		
Subsistence	533.46		Cash	135.40	
Supplies	26.22		Coupons	96.00	
Utensils	1500.00	2,059.68	Meal tickets		231.40
Received during month:			Deducted on timebooks:		
Subsistence	8134.89		Arrowrock	10,479.25	
Supplies	344.71		B. & A. Ry.	598.50	11,077.75
Utensils	35.52	8,515.12			
Labor:					
Cooks and helpers	1559.10		Deductions on disability claims	12.75	12.75
Miscellaneous	21.50	1,580.60			
Miscellaneous expenses:			Miscellaneous credits:		
Rental	160.00				
Fuel	247.50				
Lights	15.00		Meals served to hospital patients	173.80	173.80
Depreciation on equipment	50.00	472.50			
			Inventory:		
			Subsistence	788.49	
			Supplies	26.15	
			Utensils	1,350.00	2,164.64
Profit		1,032.44			
Total		13,660.34	Total		13,660.34
Total cost for month		10,463.26	Total number men, days		16,249
Total number of meals furnished		48,748	Unit cost per man, day		.644
Unit cost per meal		.215	Labor cost per man, day		.097
No. lb. of meat used		21,471	Supplies cost per man, day		.021
No. lb. meat used per man, day		1.3	Misc. exp. cost per man, day		.041
			Gen. exp. cost per man, day		.000
			Subsistence cost per man, day		.485

Some of the things which have been mentioned in this article may seem to be trivial details, but it must be remembered that the management of this operation is a mass of details and failure to give attention to the smallest feature may change the operation from a paying to a losing proposition.

The Arrowrock Dam is being constructed in the Idaho District of the United States Reclamation Service, of which F. E. Weymouth is Supervising Engineer. Charles H. Paul, Construction Engineer, has general charge of all features in connection with the construction of the dam. James Munn, Superintendent of Construction, has direct charge of construction work. The writer has direct charge of messhouse operations and incidental features.

Intercolonial Railway Pier 2 at Halifax Harbor, Nova Scotia

By A. F. Dyer*

SYNOPSIS—A reinforced-concrete pier on long unsupported concrete piles in an ocean harbor subjected to severe ice conditions. Special pile construction and driving.

The Department of Railways and Canals of Canada is just completing in Halifax Harbor the construction of new Pier 2, which is the first of a series of shipping piers in a project to enlarge the terminals of the Intercolonial Railway. The particular scheme of which this pier is a part was initiated in 1910 and comprises the construction and reconstruction of four large piers, replacing all of the other piers owned by the railway at Halifax. The general layout is shown in Fig. 1. In 1912 another project, entirely separate from the one noted, was started by the department. This comprises a landing quay, piers and a breakwater at the southerly part of Halifax Harbor, with a new double-track connection from the present tracks in the north part of the city. The first scheme is in charge of John Kennedy, Consulting Engineer to the Montreal Harbor Commissioners; the second, of F. W. Cowie, Chief Engineer of the Montreal Harbor Commissioners. The present article describes the construction of the first unit, Pier 2, of the first-named scheme.

In designing the new piers the two considerations of economy of construction and permanency of the structure determined the type to be used, which is a reinforced-concrete floor supported on reinforced-concrete piles. This type of construction was well suited to the local conditions of the site, where the depth of rock bottom varied from 42 to 68 ft. below low-water level of spring tides, which compelled the building of a substructure below the pier floor of from 61 to 87 ft.

Borings taken over the site of the new pier indicated that a layer of hard clay or hardpan covered the rock to a depth which varied from 2 to 12 ft. Above the hardpan there was found a layer of soft mud that had a depth of nearly 30 ft. at the shore end, but ran out to about 5 ft. at the outer end of the proposed pier.

The elevation of the pier deck was fixed at 19 ft. 2 in. above extreme low-water level of spring tides, which is 3 ft. 6 in. above the top of rail of the tracks in the yard. Owing to the small height of the structure above low water compared with the depth of the foundations below low water, a system of diagonal transverse bracing would not have greatly increased the stability of the pier and its ability to withstand the shock of a large vessel striking it on one of its sides; therefore, recourse was had to the use of reinforced-concrete brace piles driven at an angle of one in three to the vertical and having their heads consolidated with the transverse girders of the pier floor. It is believed that this is the first instance of such a system of bracing being used for a reinforced-concrete pile pier. Further stiffening of the structure was obtained by forming a bank of dredged material under the outer end of the pier, where the depth of water was greatest and the thickness of the material overlying the rock was least.

Concrete in Sea Water

The question of the durability of reinforced-concrete piles immersed in sea water in a climate such as prevails during the winter months in Halifax had now to be dealt with. The large ratio between the surface exposed and the bulk of the concrete in this type of construction is one of its weak points, and special measures had to be taken to prevent any deteriorating action of the water on the concrete.

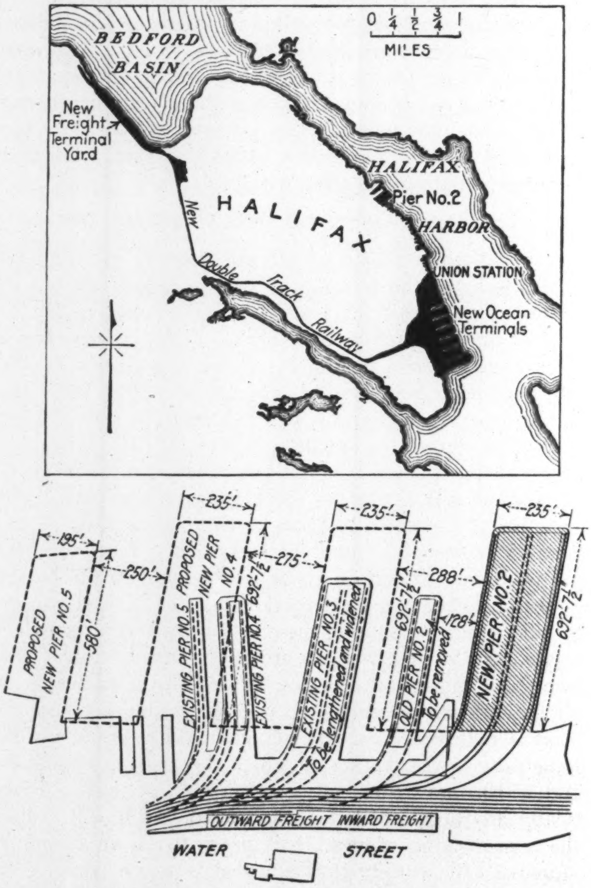

Fig. 1. Map of Halifax Showing Location of New Pier Projects and (below) Enlarged Layout of Northern Terminal

The principal causes of deterioration of concrete immersed in sea water act between the levels of low and high water and are: (1) The chemical action between the magnesium sulphate contained in sea water and the alumina in the portland cement, which forms a sulphoaluminate of lime within the concrete, thus disintegrating and weakening the structure; (2) the intermittent wetting and drying of the concrete with the rise and fall of the tide, which causes an increase in its porosity, ultimately allowing the water to reach the reinforcing steel, which, on rusting, swells and bursts off portions of the concrete; (3) the freezing at low tide of the water absorbed by the outer surface of the concrete at high tide, with consequent scaling of the surface and exposure of fresh surfaces; (4) the abrading action of floating ice on the concrete surfaces. Causes 3 and 4 are the most active along the coasts of Nova Scotia, where the temperature frequently falls to zero, during at least three months in the year.

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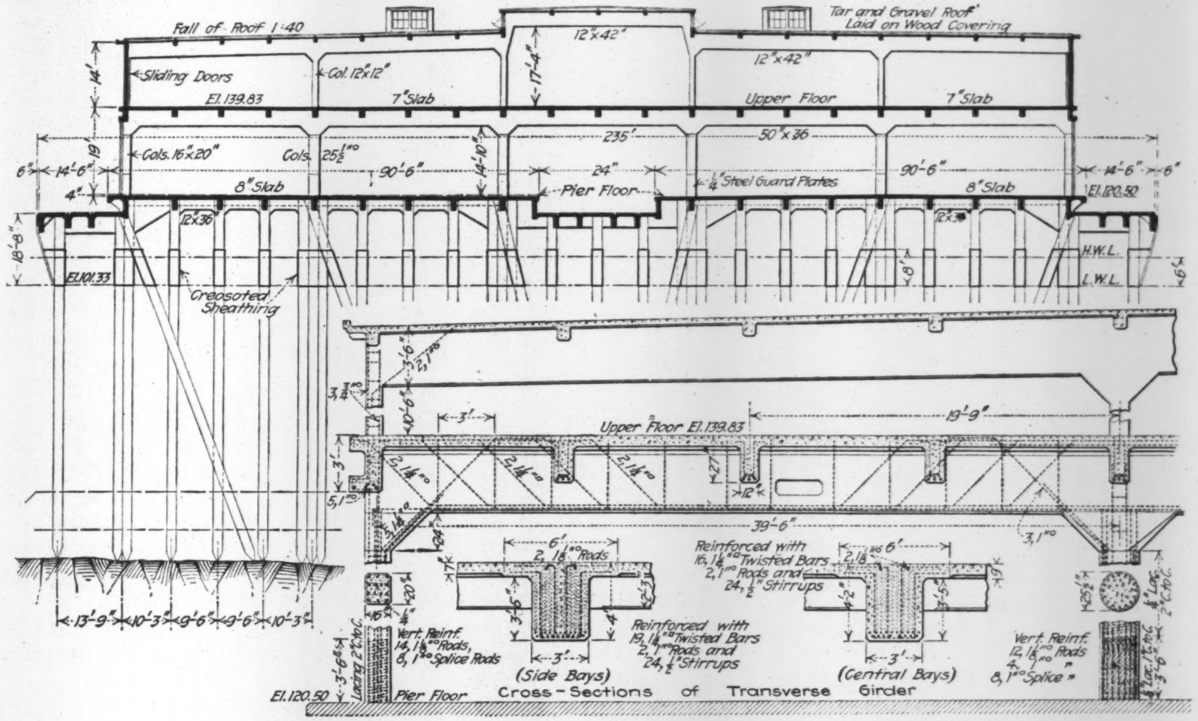
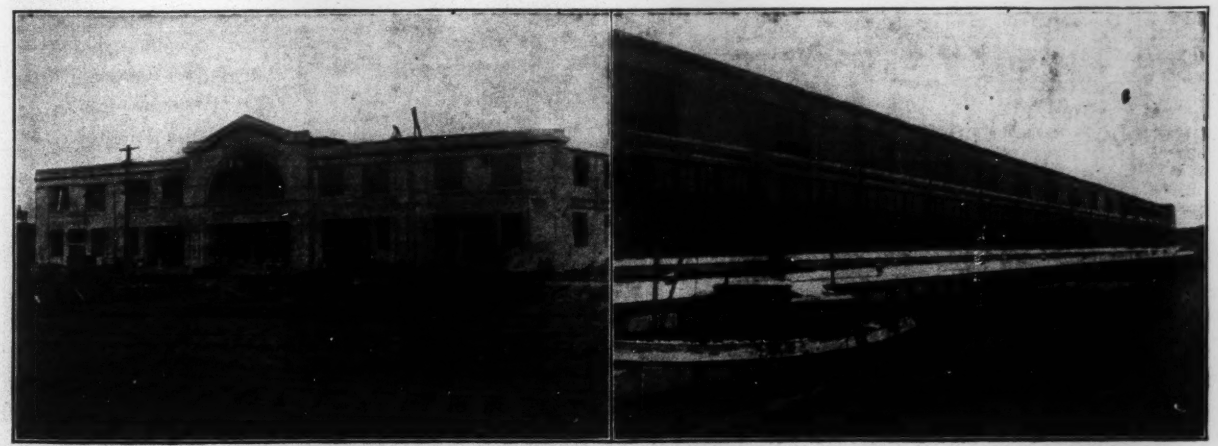

Fall of Roof 1:40
Tar and Gravel Roof Laid on Wood Covering
12"x42"
12"x42"
14'
17'-4"
Sliding Doors
Col. 12"x12"
El. 139.83
7" Slab
Upper Floor
7" Slab
235'
50"x36
19'
Cols. 16"x20"
Cols. 25½"⌀
6"
14'-6"
90'-6"
14'-10"
24"
90'-6"
14'-6"
6"
4"
8" Slab
Pier Floor
¼" Steel Guard Plates
8" Slab
El. 120.50
12"x36"
12"x36"
18'-8"
H.W.L.
L.W.L.
8'
6'
El. 101.33
Creosoted Sheathing
3'-6"
2,1"⌀
3,¾"⌀
10'-6"
3'
19'-9"
Upper Floor El. 139.83
3'
2,1¼"⌀
2,1¼"⌀
2,1¼"⌀
27"
12"
5,1"⌀
3,1¼"⌀
24"
39'-6"
3,1"⌀
13'-9"
10'-3"
9'-6"
9'-6"
10'-3"
20½"
16"
4"
Vert. Reinf. 14, 1¼"⌀ Rods, 8, 1"⌀ Splice Rods
3'-6"
Lacing 2" c. to c.
El. 120.50
Pier Floor
6'
2, 1⅛"⌀ Rods
7"
3'-6"
4'
2'-3"
Reinforced with 19, 1¼"⌀ Twisted Bars 2, 1"⌀ Rods and 24, ½" Stirrups
3'
(Side Bays)
Reinforced with 16, 1¼"⌀ Twisted Bars 2, 1"⌀ Rods and 24, ½" Stirrups
2, 1⅛"⌀
6'
9"
4'-2"
3'-5"
3'
(Central Bays)
Cross-Sections of Transverse Girder
25½"
¼" Lac. 2" c. to c.
Vert. Reinf. 12, 1¼"⌀ Rods 4, 1"⌀ " 8, 1"⌀ Splice "
¼" Lac. 1" c. to c.
3'-6"

FIG. 2. DETAILS OF PIER 2, INTERCOLONIAL RY. TERMINAL, HALIFAX HARBOR

The measures taken to prevent, as far as possible, the above-mentioned actions on the piles were: (1) The portland cement used for the making of all concrete below high-water level did not contain more than 6.3% of alumina; (2) all concrete below high-water level was mixed in the proportions of 1 part cement, 1½ parts sand and 3 parts crushed quartzite gravel, with the object of obtaining a rich and as dense and nonporous a concrete as possible; (3) all concrete surfaces from low-water level to about 2 ft. above high water were sheathed with two layers of 2-in. creosoted pine planking, bedded on cement mortar. The inner surfaces of the planks were coated with pitch to prevent any deteriorating action taking place between the creosote in the wood and the concrete of the piles. This sheathing keeps the concrete surfaces moist, prevents all frost action and protects the concrete from abrasion by ice as well as the wearing action of the wash of the water.

GENERAL DESIGN

The pier is 235 ft. wide and 693 ft. long and carries a two-story freight shed 200 ft. wide and extending from



FIGS. 3 AND 4. HEAD HOUSE AND SIDE ELEVATION OF PIER 2

the bulkhead line to within 15 ft. of the outer end of the pier. This shed allows room to run a railway track along each edge of the pier. Two additional railway tracks run the whole length of the shed down the center of the pier, dividing the lower floor into two separate freight floors each 88 ft. in width. The columns supporting the shed are spaced 39 ft. 6 in. transversely and 18 ft. longitudinally, the long transverse span being decided upon in order to facilitate the handling of gangways.

The loads for which the pier and shed floors are designed are: Pier deck, 1000 lb. per sq.ft. live-load; track girders, 4500 lb. per running foot of each rail live-load; upper floor of shed, 500 lb. per sq.ft. live-load; and roof, 110 lb. per sq.ft. total load.

REINFORCED-CONCRETE PILES

The longitudinal spacing of the shed columns determined the distance between bents of piles, and it was decided to use piles capable of supporting a load of at least 100 tons, including their own weight in water. This compelled the use of piles 24 in. square in section and required 33 vertical and 6 sloping piles in each bent. Two vertical and 1 sloping piles are located beneath each side column of the shed, 3 vertical and 1 sloping piles beneath each interior column, and the remainder of the vertical piles are spaced out between the column groups at approximately 10ft. centers. They range in length from 57 to 77 ft. and were driven with the special piledriver described hereinafter.

The amount of reinforcement in the piles varied in accordance with their length as cast and was fixed by the amount required for their safe handling when being placed in position for driving. All piles under 60 ft. in length are reinforced with eight 1-in. round rods longitudinally; 1⅛-in. rods were used for piles over 60 ft. and under 70 ft. in length, and 1¼-in. rods for those over 70 ft. in length. One-quarter-inch lacing rods securely tied to the longitudinal reinforcement at 12-in. centers were used. All longitudinal reinforcing rods were continuous from end to end of each pile, no laps being allowed. The points of the piles are tapered for a length of 1 ft. 9 in. and finished 3 in. square, being reinforced with four additional 1⅛-in. rods and ¼-in. spiral hooping at 2-in. pitch. No metal shoes were used. Some additional stirrups were placed near the head of the piles to prevent excessive breakage while driving, and the longitudinal rods were allowed to project 3 ft. beyond the concrete to save the labor of cutting away the concrete in order to secure the necessary bond of the pile reinforcement with the concrete of the pier deck. A staple made from a 1¼-in. square steel bar was also cast into the head of the pile for use in handling it in the leads of the piledriver. In order to minimize the bending moments during handling it was specified that all piles were to be lifted in such way that they were suspended at points one-fifth of their length from each end while in a horizontal position. By the observance of this rule the cracking of the piles while being conveyed from the molding yard to their ultimate position ready for driving was entirely eliminated.

The piles to be driven as brace piles were reinforced in a similar manner to the vertical ones, but were cast with a camber, so that when built into the pier and under an axial load of 80 tons, the stresses on the cross-section of the concrete due to this load and the bending moment of its own weight would be uniform. The amount of camber required was determined by equating the moment due to the axial load into the unknown camber to the moment due to the weight of the pile in water.

The camber equals the bending moment due to weight of pile after being driven in water at angle divided by 160,000 lb.

This formula gives the camber required for a pile 45 ft. long as 2 in. and 5½ in. for one 75 ft. long. Brace piles were placed so that their heads could be built into

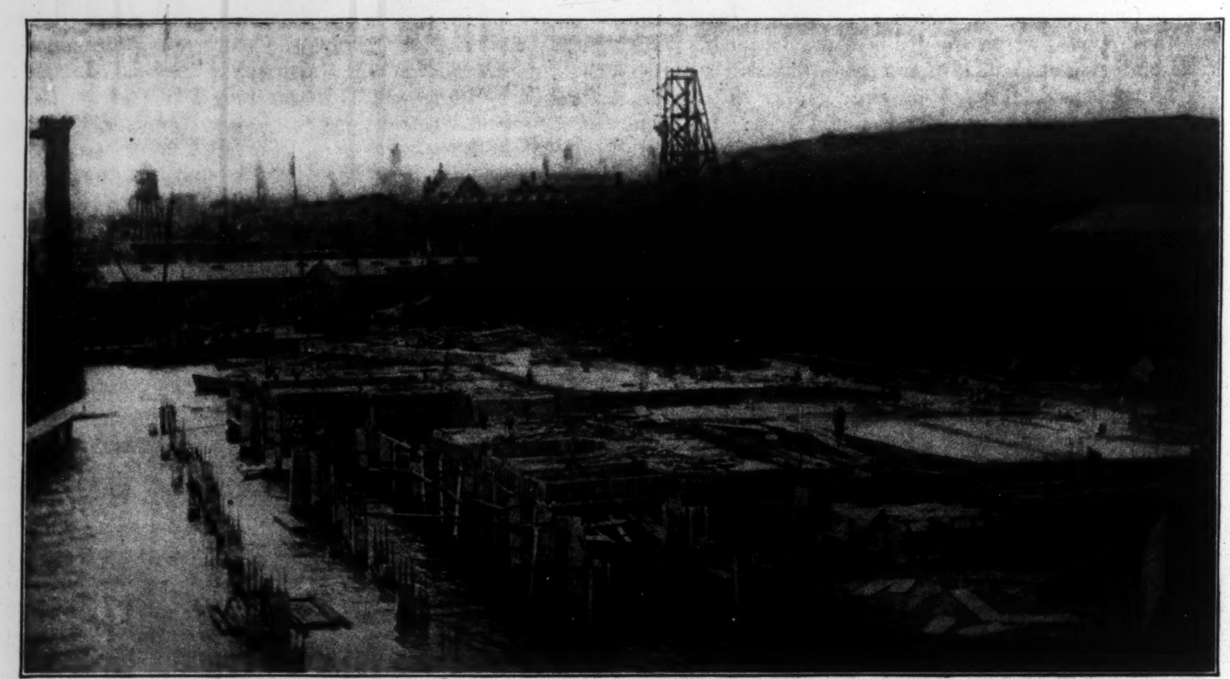


FIG. 5. PIER 2 IN EARLY STAGES OF CONSTRUCTION
(Note batter piles and also wooden casing for piles above water)

FIG. 6. BUILDING THE SHED ON PIER 2, INTERCOLONIAL RY., HALIFAX

the deck beams immediately under a shed column, so that all danger of a brace pile breaking through the pier deck was prevented. The number of concrete piles used in the work is 1801, 238 of which were driven at an angle as bracing piles.

REINFORCED-CONCRETE DETAILS

The pier deck is built entirely of reinforced concrete carried on reinforced-concrete girders 36 in. deep, which run transversely across the pier along the pile bents and on girders of the same depth running longitudinally at an average of 9 ft. 10½-in. centers. The 18x9 ft. 10½-in. rectangle thus formed is divided again by a transverse floor-beam 24 in. deep. The slab is 8 in. thick, reinforced in both directions with ½-in. round rods at 7-in. centers, every alternate rod being bent up over the supporting beam. The design is detailed in Fig. 2.

All beams and girders are designed as T-beams, sufficient web reinforcement being used to take care of the excessive shearing stresses, the top ends of the U-stirrups being bent horizontally and carried into the slab as far as the table of the T extends, in order that the shearing stresses occurring between the web and table be properly cared for.

Owing to the side and central railway tracks being carried at a level 3 ft. 6 in. below that of the pier deck proper, transverse concrete gussets were built in at the four breaks in the floor level so that the rigidity of the floor system would be maintained from one side of the pier to the other and the whole floor would act as a monolith in resisting the shocks of large vessels.

A concrete beam 51 in. deep is carried along each edge of the pier, and to the outside of this is secured a rubbing fender of pitch pine with a vertical face of 20 in. At the outer corners of the pier the depth of the fender beam was increased to about 11 ft., the corners being cut diagonally across, leaving a flat concrete surface 16 ft. wide by 11 ft. deep, strongly braced at the back by gussets from the pier floor. Numerous holes were left in this concrete face for attaching thereto fenders made of birch or willow saplings bound together into bundles.*

The interior columns supporting the upper floor of the shed are circular in cross-section, 25½ in. diameter, reinforced with 1⅛-in. vertical rods and ¼-in. hooping at 1-in. pitch. The side columns are rectangular in section, 16x20 in., reinforced with vertical rods with ¼-in. lacing at 6-in. centers.

The upper floor-beam system consists of transverse girders supported on the six columns of each bent and longitudinal beams at 9 ft. 10½-in. centers carrying a concrete slab 7 in. in thickness. The transverse girders have a span of 39 ft. 6 in. c. to c. of columns. In order to reduce the height of the upper floor above the pier deck to a minimum and at the same time to have adequate headroom for the lower story, the depth of the girders was made 50 in. and the thickness of the floor-slab was increased to 9 in. for a strip of 18 in. along each side of the girder, to provide sufficient compression area. The heavy shearing stresses were taken care of by bending the ends of eight of the horizontal rods in each beam diagonally up at intervals as required and also by the addition of U stirrups. Knee-brace brackets are provided at the heads of all columns to insure lateral stiffness. The width of the girders was made 36 in. to provide plenty of concrete for the proper bedding in of the large amount of reinforcing steel.

The roof consists of tar and gravel roofing laid on boarding and carried on a light reinforced-concrete slab.

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*Described in "Engineering News," June 3, 1915, p. 1083.

The roof-beam system consists of 12x42-in. transverse girders carried on 12x12-in. concrete posts and 8x12-in. longitudinal beams with spans the same as the upper floor. The center bay of the roof is raised 5 ft. for the total length of the building, thus forming a monitor and providing good light for the upper story.

Steel sliding doors inclose each side of the lower story except for a length of 72 ft. at the shore end given over to shipping and railway offices. On the upper floor a 17-ft. opening closed with two steel sliding doors is provided at 36-ft. centers. All sliding doors for both floors are provided with windows glazed with ribbed wire glass.

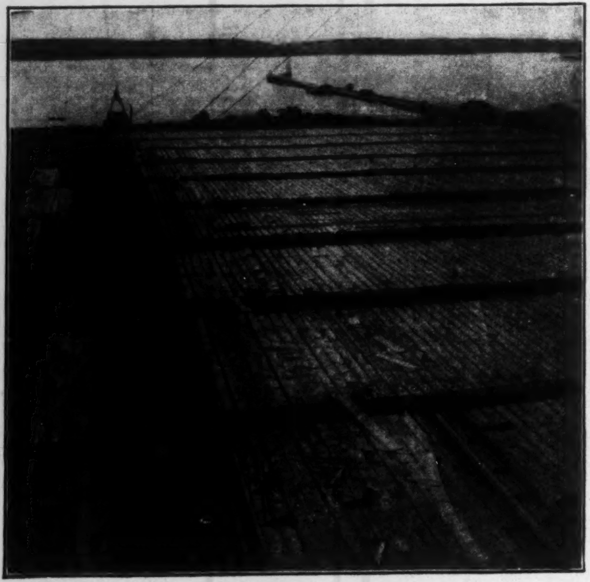

FIG. 7. THE CONCRETE PILE YARD AT HALIFAX

The two end walls of the shed are of reinforced concrete. The entrance for the two central railway tracks through the west end wall, 33 ft. wide by 18 ft. high, is provided with a rolling steel-slat door, as are also the 18-ft. wide roadway entrances. All window frames are of steel glazed with wire glass.

There are no expansion joints in either the pier deck or the upper floor, but as the upper story is to be temporarily used for an immigration examination building and will be heated during the winter months, it was thought advisable to leave expansion joints in the roof to relieve the bending stresses which would occur in the columns toward the ends and sides of the building.

Transverse joints are made by simply leaving a ½-in. space midway between two bents of columns, the longitudinal beams thus cut being designed as cantilevers. Where it was necessary to have an expansion joint to guard against transverse expansion, it was made by having the north end of the monitor girders rest on steel plates and rollers. (Fig. 9.)

PILE MAKING

A level area of sandy beach about seven miles by water from the site of the new pier was leased and graded for a pile-making yard. To the back of this area were large deposits of gravel and coarse sand, which on examination proved to be mostly composed of quartzite. Cubes and briquettes of mortar made from this material and cement easily passed the limits of strength required by the specifications, which were based on those of the Canadian Society of Civil Engineers.

The molding yard measured 800x600-ft. (Fig. 7.) A gravel-excavating, crushing and concrete-mixing tower was erected at the east end of the yard, mounted on wheels which ran on tracks across the whole width of the yard. Parallel tracks were laid across the west end of the yard, on which an anchor tower, similarly mounted on wheels, was placed and a cableway stretched between the two for the conveying of the concrete to the pile molds.

On top of the main tower, 80 ft. above track level, was placed a winding winch operating a dragline excavating bucket. This bucket emptied its contents of sand and gravel into a hopper over a grizzly, all stones not passing through being conveyed to a jaw crusher. The material then passed ¼-in. and 1-in. screens to separate the sand from the stone, any stones not passing through the 1-in. screen being elevated to a second crusher.

Chutes from the stone and sand bins led the materials to the mixer platform, where they were measured before passing into the one-yard batch mixer which discharged each batch into a bottom-dumping bucket that traveled along the aërial cableway to the pile molds.

Once the concreting of a pair of piles began, no stop was allowed before they were completed, so that all joints were eliminated. The first pile was concreted on May 21, 1912, and all were completed by Dec. 17 of the same year. The maximum amount of concrete poured by this plant in a day of 10 hr. was 168 cu.yd.

A timber pier 1000 ft. long by 22 ft. wide except for 85 ft. at its outer end, where its width is increased to 38 ft., carrying one railway track and a 30-ton loading derrick at its outer end, was built at the west end of the pier, extending westward into the harbor. This pier was also equipped with stone- and sand-storage bins.

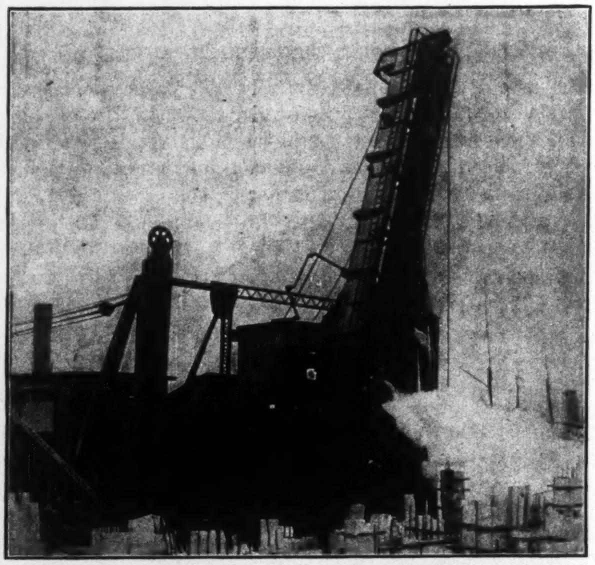

FIG. 8. THE PILEDRIVER DRIVING A BATTER PILE

Owing to the weight of the concrete piles, the smallest of which weighed 12 tons and the largest 46,000 lb., the conveying of them to the site of the work presented certain difficulties. The railway track from the loading pier was continued along the north side of the yard. Counterweighted cars with projecting ends were used for bringing the pile to the pier track. These cars were furnished with a heavy screw-jack on their overhanging ends, by which the pile was raised off the mold bottom and laid between the two rails of the longitudinal track. It was there raised up under two cars which straddle the pile and pushed out to the pier head, where the derrick lifted it onto a scow for conveyance to the new pier. The scows used were capable of taking nine piles on each trip.

PILEDRIVING

The difficulty of driving such long and so many battered piles required the adoption of a very heavy and somewhat complicated piledriver which was capable of being easily moved in any direction and shifted in any angle in the vertical plane. This machine, manufactured by the Bucyrus Co., was fully described in ENGINEERING NEWS, May 28, 1914, p. 1198. (Fig. 8.)

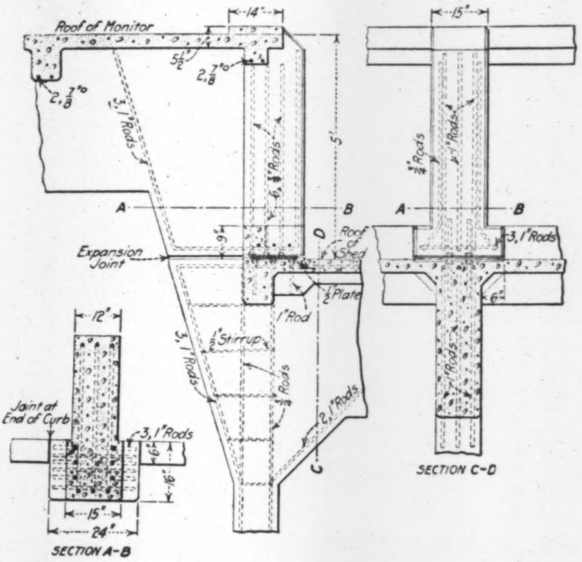

FIG. 9. DETAIL OF EXPANSION JOINT AT MONITOR

The method followed in placing and driving a pile was as follows: The piledriver scow was first placed in position by means of cross-ranges and anchored by lowering her spuds. Straps were placed around the pile to be driven as it lay on the deck of the scow on which it had been brought up from the yard and it was lifted horizontally by one of the forward derricks and swung round in front of the driver so that the head of the pile came in front of the pile leads. The swinging was accomplished by manipulating the forward spuds of the piledriver scow. The pile fall, having been made fast to the staple projecting out of the head of the pile, was hoisted up and at the same time the derrick fall was lowered and the pile gradually raised into a vertical position, the straps being taken off as the strain came off them. The pile leads were then moved as required for the exact centering of the pile. On the pile being lowered it penetrated the overlying soft mud with its own weight. This mud was found to have sufficient stiffness to hold the pile vertically when its depth was about equal to one-third of the length of the pile. As a general rule, however, the piles had to be stayed while the hammer was being adjusted on their heads.

Three separate cushions were used between the head of the pile and the ram of the hammer. On top of the pile was first placed 3 in. of spruce plank. On this rested a cast-steel follower about 4 ft. in height, designed to protect the projecting reinforcing rods and staple. This follower consisted of a hollow steel cylinder with top and bottom flanges. The bottom flange was flat and provided with holes through which the projecting rods passed and by means of which the pile was firmly held while being driven. The top flange had a rectangular depression on its upper side, in which was placed a hardwood block about 15 in. thick, bound round with steel bands. This block received the direct strokes of the hammer and had to be frequently renewed. At times one of these blocks would break up after the driving of only two piles, while others would stand the hammering of twenty, the breakage of the steel band usually being the cause of failure; although at times the heart of the block would become charred owing to the heat generated by the force of the blows.

The amount of hammering which the piles required to drive them to refusal varied a great deal. In some places where the depth of the hardpan was small the pile would come to a stop after 200 to 300 blows, while in other places they would require nearly 1800 blows to drive them to rock. The rate of penetration through the hardpan was small, the last foot or so in many cases being penetrated at not more than $^1/_{30}$ in. per stroke.

The following are records of the driving of three piles which show the great variation met with:

	1	2	3
Number of strokes of hammer.....	1010	505	240
Total amount of penetration, in....	107	0.37	23.2
Average penetration per blow, in...	0.1	0.073	0.1
Average penetration per blow during last foot, in................	0.033	0.036	0.059

Very little damage was done to the piles by the hammering. Only two had their heads badly smashed. These were among the first few piles driven, and the cause of the shattering was the continuation of the hammering after the pile had reached rock. A few blows of the hammer after penetration had stopped did no damage. In a few cases pieces of concrete would be knocked off the top edges of the pile head, usually due to a tendency of the pile to drive to one side or the other, thus making the hammer bear unevenly. To determine what was taking place at the point of the pile, several were pulled up after having been driven to refusal. Out of nine thus pulled and examined only one showed any damage, and in that case a sharp point of rock had been encountered which had entered the concrete point of the pile and spalled a small piece off the corner.

When no machine troubles were met with an average of 10 piles could be set and driven in 10 hr. In some weeks, however, the average would slightly exceed 12 per day, and the best day's work was 18.

In order to test the bearing power of the piles after driving, load tests were made with a floating load of 180,000 lb. on certain piles. The load, which consisted of two scows of 90,000 lb. weight each, was attached to the ends of a steel girder resting on the head of the pile and made fast at high tide, the pile and load being securely braced to prevent swaying of the former when under load. On the tide falling the whole load was carried by the pile.

Tests were made on piles which had been driven to different degrees of penetration with the following results:

Pile going $\frac{1}{16}$ in. per blow, settlement under load $^1/_{15}$ in.
Pile going $\frac{1}{8}$ in. per blow, settlement under load $^1/_{20}$ in.
Pile driven to refusal, settlement under load nil.

The problem of building forms of the necessary strength and stiffness on the short length of pile projecting above the water was not an easy one, but was successfully solved by the contractors. Horizontal wales of 4x8-in. sticks were bolted on each side of the piles as soon after driving as possible, and on these were erected the vertical forms for the building up of the pile to deck level. The bottoms of the beam forms were carried on joists supported by the pile-extension forms and braced by diagonal shores from the pile walings. Slight settlement of the forms took place on the pouring of the deck concrete, but in no case did any failure occur. It was found that by filling the pile extension forms at least 24 hr. ahead of the pouring of the deck, the settlement was reduced considerably.

By the middle of December, 1913, the piles had been driven and the pier floor completed to within 115 ft. of the outer end, at which place the work was suspended until the following spring, and the portion of the pier built was equipped with temporary wooden freight sheds and used throughout the winter by freight steamers. During this time the ability of the pier to withstand lateral blows from large vessels was demonstrated on more than one occasion. In every case the plates of the steamers were the sufferers from the impact. Work was resumed in May, 1914, and the whole of the concrete work completed by December, 1914.

PERSONNEL

The contract for the construction of the pier and shed has been carried out by the Nova Scotia Construction Co. under the management of Hamilton Lindsay, assisted by J. Shepherd Lee. John Kennedy is Consulting Engineer for the Dominion Government for the work and was assisted in the design by the writer, who has acted as Resident Engineer on the construction, assisted by R. A. Lockerby. The cost of the work complete will be about $1,125,000.

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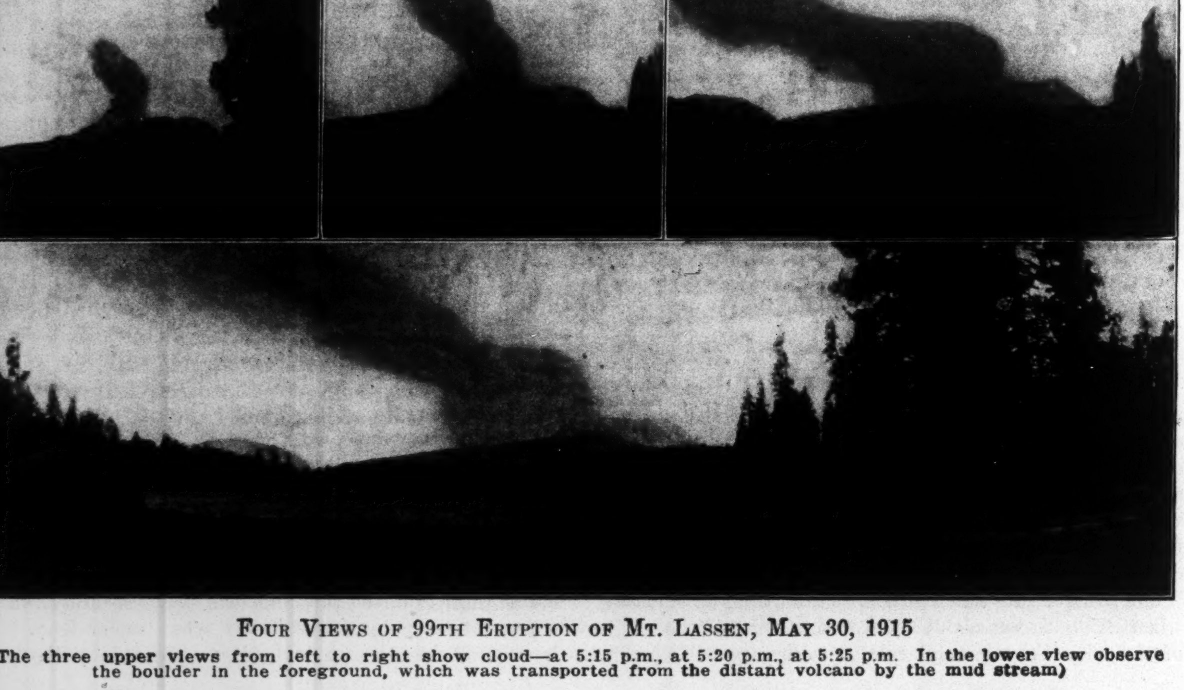
Volcanic Activity of Mt. Lassen

By THOMAS H. MEANS*

One hundred eruptions of Mt. Lassen, California, have been observed since May 30, 1914, when the first one took place. The writer recently made a trip to the volcano, and his observations were of considerable interest to himself, and will probably be to other engineers.

After a long period of comparative quiescence, during the night of May 20, 1915, a violent eruption occurred, and a tremendous flood of mud and water ran down the northeastern slope of the peak into the headwaters of Hat Creek. In the afternoon of May 22 a second and more violent eruption occurred, the steam cloud rising to a height of 5½ mi. above the top of the cone (as calculated from transit observations made by Joseph L. Reading, an engineer in Redding). This second big eruption was accompanied by another mud flood.

The northeastern slope of Mt. Lassen is very steep, being nearly 45 deg. in places. Two ridges or shoulders, one running to the east and one to the north, form a cirque or cove which is more than a mile wide. Prior to May, 1914, this cirque was filled with a glacier of unknown depth. Deep snow and ice remained here at the end of a hot dry summer. Nearly all other exposures of the peak were denuded of snow each year. This glacier varied in



FOUR VIEWS OF 99TH ERUPTION OF MT. LASSEN, MAY 30, 1915
(The three upper views from left to right show cloud—at 5:15 p.m., at 5:20 p.m., at 5:25 p.m. In the lower view observe the boulder in the foreground, which was transported from the distant volcano by the mud stream)

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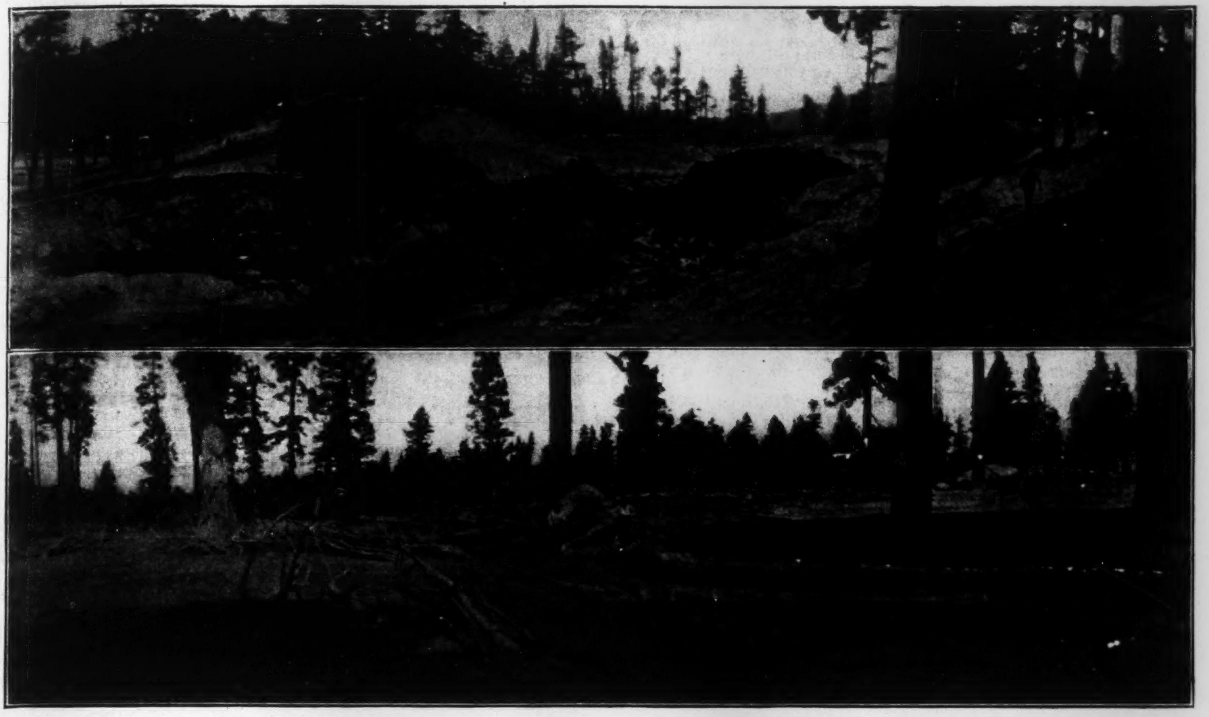

EROSION AND DÉBRIS FROM FLOODS OF MAY 20 AND 22, 1915

length from about 10,000 to 7500 ft. Since the eruption of May 20, 1915, this side of the mountain has been greatly changed. The glacier is gone, the mountainside is bare, and in the center of the cirque, where the snow was deepest, a line of steam holes extends from the crater's top down 7000 ft.

Mud and water sliding down this mountainside gained sufficient momentum to splash and run up the opposite mountainside to elevations of 200 ft. or more above the valley bottoms. The flood then divided, part going down Upper Hat Creek and part down Lost Creek, the main tributary of Hat Creek.

This flood carried with it trees, brush, rocks, boulders and mud, and swept a pathway from 600 to 1000 ft. wide, leaving a desolation of mud and boulders, with here and there logs and brush, as shown in the views. In the upper valleys the waters rose from 10 to 30 ft. Lower down the stream the crest flattened out and the water was absorbed by the valleys and the porous cove, and at Cassels (35 mi. distant) the rise did not exceed 6 in. The character of the destruction in the upper parts of the valley indicates that the flood was plastic, as though mud and ice were abundant.

It is very difficult to estimate the volume of the flood at maximum flow, for we have no measure of the velocity. At several points the area of the cross-section of the stream was estimated by pacing, and it was found to average 6000 sq.ft. The velocity was great enough to roll rocks 10 ft. in diameter. The average velocity of the flood for the first 10 mi. was roughly estimated at 15 to 20 ft. per sec. In the upper Meadows the writer believes the water must have flowed at a rate of 30 ft. per sec. Even with these rough figures it is seen that the flood must have been between 90,000 and 180,000 sec.-ft. in Lost Creek alone. No estimate was made for Upper Hat Creek.

No evidence of molten rock has yet been found around Lassen. That the rocks are getting hot no one can deny. We found a boulder 10 ft. high by 60 ft. in circumference which had been carried by the water 2 mi. from the crater. Our visit took place 8 days after the second flood and 10 days after the first, and yet this rock was too hot to touch and hot enough to ignite a match.

There is no evidence to show that rocks have been dropped on any point a mile away from the main crater. A search of the hillsides for 1½ mi. around revealed nothing so large as a pea. Dust, or volcanic ash, has been found several miles away, and the ground within 2 mi. of the crater shows the results of several dust showers.

On May 30, 1915, during a visit to Upper Hat Creek, a very beautiful eruption was observed from a distance of about 5 mi. Photographs of this eruption, taken by the writer, are reproduced herewith. The height of the steam cloud was estimated to be 7000 ft. above the crater.

Mt. Lassen eruptions have increased in intensity, but to date they have been associated with the wet season and the period of melting snow. Whether the water which makes the steam comes from some distant source, such as the ocean or Big Meadows Reservoir, is a question yet unanswered.

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Exposition of American Chemical Industries—The first American exposition of chemical industries will be held at Grand Central Palace, New York City, during the week beginning Sept. 20, 1915. It is to be managed by C. F. Roth and A. Nagelvoort, assisted by an advisory committee of nine eminent chemical engineers. It is expected to include coal, wood and petroleum products, metals, minerals, water and sewage purification, air and gas processes, glass and ceramics, oils, varnishes, plastics, rubber, leather, glue, etc. Working exhibits will be shown. Inquiries should be directed to the National Exposition of Chemical Industries, 46th St. and Lexington Ave., New York City.

Relative Reliability of Long-Time Rainfall Observations

By F. H. Millard*

In dealing with rainfall there is always the feeling that one more year's observations might bring a maximum or minimum rainfall entirely out of relation to those observed in previous years. It would be very satisfactory if one could observe the rainfall for a year and then state with assurance that this is an average year or a year which bears a certain definite relation to the average of all years.

Recently there have appeared two tabulations—one covering the rainfall in Milwaukee for a period of 63 years and the other covering rainfall for 100 years at New Bedford, Mass. It is of considerable interest to take these rainfall records and to combine consecutive years into groups of varying lengths and to note the maximum and minimum average rainfall per year obtained by these combinations of consecutive years.

TABLE I. VARIATION IN YEARLY RAINFALL IN INCHES DURING PERIODS OF VARIOUS LENGTHS

Number of Years Observed	63-Year Record at Milwaukee, Maximum	Minimum	Variation	100-Year Record at New Bedford, Maximum	Minimum	Variation
1	50.4	18.1	32.3	65.41	34.51	30.90
2	48.3	22.9	25.4	65.04	33.58	31.46
3	44.6	22.7	21.9	63.75	40.06	23.69
4	42.6	24.9	17.7	60.14	39.40	20.74
5	40.3	24.6	15.7	58.64	41.13	17.51
6	38.7	25.5	13.2	57.99	41.06	16.93
8	36.9	26.9	10.0	54.99	42.08	12.91
10	35.5	26.8	8.7	54.26	43.23	11.03
15	33.9	28.4	5.5	51.00	43.24	7.76
20	33.2	28.7	4.5	49.24	44.52	4.72
25	33.1	29.1	4.0	48.35	44.36	3.99
30	32.7	29.8	2.9	48.07	44.37	3.70
40	32.2	30.7	1.5	47.86	45.16	2.70
50	....	....	....	47.20	45.17	2.03
60	....	....	....	46.92	45.93	0.99
70	....	....	....	47.12	46.07	1.05
80	....	....	....	47.28	45.97	1.31

Table I shows the results of these groupings and Fig. 1 gives the same information in graphic form. It is interesting to note the fact that the variations above the average are considerably larger than the variations below the average, and that if one is to observe for a short period only, the variation above the average is likely to be appreciably larger than the variation below the average.

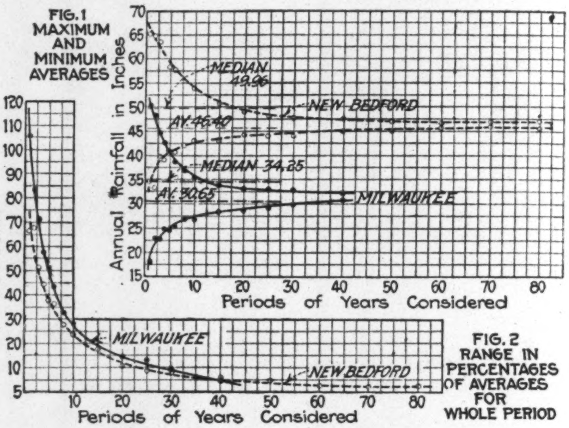
Table II shows the percentage which the average rainfall per year, determined from the maximum and minimum groups of different lengths, is of the average rainfall per year for all observations. It will be noted that in one case the maximum single year exceeded the average by over 60%, while the minimum year was less than the average by 40%. In the other case the figures show a variation of 40% above the average for the maximum and 26% below the average for the minimum. Taking 10-year periods, the maximum is only 16% greater than the average, while the minimum is 13% less in one case, the maximum being 17% greater and the minimum 7% less in the other case.

TABLE II. PERCENTAGES WHICH AVERAGE RAINFALL FOR VARIOUS SUB-PERIODS ARE OF AVERAGE RAINFALL FOR WHOLE PERIOD

	63-Year Record at Milwaukee, Average per Year, 30.65 in.							100-Year Record at New Bedford, Average per Year, 46.40 in.						
No. of Years Observed	Max., in.	% of Aver.	Min., in.	% of Aver.	Range, in.	% of Aver.	% of 5-Yr. Range, 15.7 in.	Max., in.	% of Aver.	Min., in.	% of Aver.	Range, in.	% of Aver.	% of 5-Yr. Range, 17.51 in.
1	50.4	164.4	18.1	59.0	32.3	105.4	205.7	65.41	141.0	34.51	74.4	30.90	66.6	176.5
2	48.3	157.6	22.9	74.7	25.4	82.9	161.8	65.04	140.2	33.58	72.4	31.46	67.8	179.7
3	44.6	145.5	22.7	74.0	21.9	71.5	139.5	63.75	137.4	40.06	86.3	23.69	51.1	135.3
4	42.6	139.0	24.9	81.2	17.7	57.7	112.7	60.14	130.0	39.40	84.9	20.74	44.7	118.4
5	40.3	131.5	24.6	80.3	15.7	51.2	.....	58.64	126.4	41.13	88.6	17.51	37.7	.....
6	38.7	126.3	25.5	83.2	13.2	43.1	84.1	57.99	124.8	41.06	88.4	16.93	36.4	96.7
8	36.9	120.4	26.9	87.8	10.0	32.6	63.7	54.99	118.4	42.08	90.6	12.91	27.8	73.7
10	35.5	115.8	26.8	87.4	8.7	28.4	55.4	54.26	116.9	43.23	93.2	11.03	23.8	63.0
15	33.9	110.6	28.4	92.7	5.5	17.9	35.0	51.00	110.0	43.24	93.2	7.76	16.7	44.3
20	33.2	108.3	28.7	93.6	4.5	14.7	28.7	49.24	106.1	44.52	95.9	4.72	10.2	27.0
25	33.1	108.0	29.1	94.9	4.0	13.1	25.5	48.35	104.2	44.36	95.6	3.99	8.6	22.8
30	32.7	106.7	29.8	97.2	2.9	9.5	18.5	48.07	103.6	44.37	95.6	3.70	8.0	21.1
40	32.2	105.1	30.7	100.2	1.5	4.9	9.6	47.86	103.1	45.16	97.3	2.70	5.8	15.4
50	....	.....	....	....	....	.....	.....	47.20	101.7	45.17	97.3	2.03	4.4	11.6
60	....	.....	....	....	....	.....	.....	46.92	101.1	45.93	99.0	0.99	2.1	5.7
70	....	.....	....	....	....	.....	.....	47.12	101.6	46.07	99.3	1.05	2.3	6.0
80	....	.....	....	....	....	.....	.....	47.28	101.9	45.97	99.1	1.31	2.8	7.5

Fig. 2 shows graphically the range from the maximum to the minimum in per cent. of the averages for both series of figures and for groupings of different lengths. These curves are remarkably similar.

Table II shows also the percentage variation of each length of observation in terms of the percentage variation of the five-year observations. The five-year period was arbitrarily taken as a unit, and from this table it appears that in the matter of accuracy the increase of the period of observation from one year to five years does more than the inclusion of an additional 35 years in the one case, and in the other, it appears that the inclusion of the first four additional years contributes to the accuracy of the averages observed to about the same extent that the inclusion of an additional 20 years would.



Figs. 1 and 2. Maximum and Minimum Average Yearly Rainfalls for Various Periods at Milwaukee and New Bedford

(Based on a 63-yr. record at Milwaukee and a 100-yr. record at New Bedford)

No attempt has been made to study these figures with the aid of higher mathematics, and the curves are shown here as illustrative of the increasing accuracy of rainfall observations when averages are based on records covering increased periods of time. More such long-time records should be made available in order that the curves here shown representing rainfall on the Eastern seaboard and in the Great Lakes district may be compared with rainfall on the Pacific Coast or in the Plains states.

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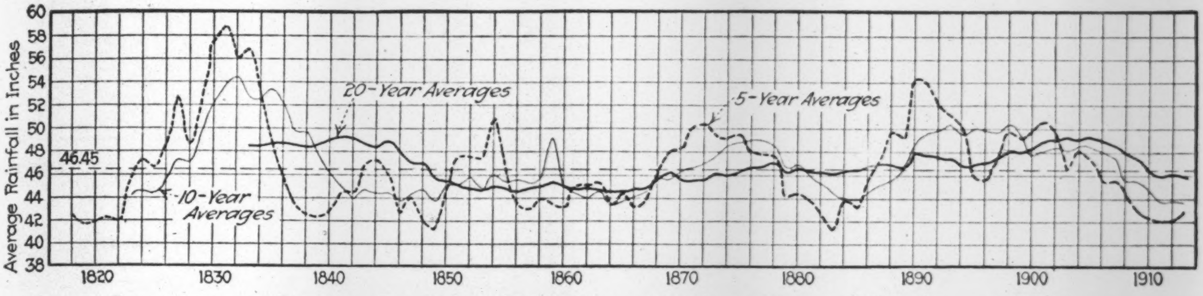
Average Rainfall in the Light of the New Bedford Record

By N. M. Stineman*

An article in Engineering News of Nov. 19, 1914. by X. H. Goodnough gives a continuous record of rainfall at New Bedford, Mass., from 1814 to 1913 inclusive. A thorough discussion of the record is given in the article; but further investigation throws light upon the question as to what reliance may be placed upon records of a much shorter duration. Would rainfall observations continued for 5, 10 or 20 years be of any value?



Comparison of Rainfall Averages for 5-, 10- and 20-Year Periods, New Bedford, Mass.

Recently I had occasion to analyze the New Bedford records, in order to determine, if possible, the probable value of a record which is continuous for only 20 years. The accompanying diagram gives the results. Five-year, 10-year and 20-year averages are plotted to the same scale, the ordinate over any given year representing the average for the period ending with that year. For example, at the ordinate 1840 may be read the average rainfall for the 5-year period from 1836 to 1840, the 10-year period from 1831 to 1840 and the 20-year period from 1821 to 1840.

COMPARISON OF RAINFALL AVERAGES, NEW BEDFORD, MASS.

Year at End of Period	5-Year Averages	10-Year Averages	20-Year Averages	Year at End of Period	5-Year Averages	10-Year Averages	20-Year Averages
1814				1864	43.11	43.24	44.59
15				65	44.37	43.74	44.48
16				66	43.14	44.06	44.77
17				67	43.90	44.44	44.83
18	42.42			68	46.14	45.67	45.61
19	41.73			69	47.94	45.52	46.29
1820	41.84			1870	48.17	46.27	45.51
21	42.14			71	50.03	46.58	45.41
22	41.83			72	50.14	47.02	45.49
23	45.66	44.04		73	49.21	47.68	46.10
24	47.19	44.46		74	49.09	48.52	45.88
25	46.55	44.20		75	49.32	48.75	46.24
26	48.37	45.26		76	47.84	48.93	46.50
27	52.60	47.22		77	47.72	48.93	46.69
28	48.43	47.04		78	47.49	48.35	47.01
29	52.04	49.62		79	44.08	46.59	46.06
1830	57.36	51.95		1880	44.43	46.88	46.57
31	58.64	53.51		81	43.81	45.83	46.20
32	55.92	54.26		82	42.68	45.20	46.11
33	56.64	52.53	48.28	83	41.27	44.38	46.03
34	52.58	52.31	48.39	84	43.81	43.94	46.23
35	49.09	53.22	48.71	85	43.16	43.79	46.27
36	45.42	52.03	48.64	86	45.31	44.56	46.75
37	43.37	49.64	48.43	87	47.39	45.03	46.98
38	42.50	49.57	48.31	88	49.70	45.48	46.92
39	42.35	47.47	48.54	89	49.24	46.52	46.56
1840	42.83	45.96	48.96	1890	54.22	48.69	47.78
41	44.38	44.90	49.20	91	53.81	49.56	47.69
42	44.38	43.88	49.07	92	52.03	49.71	47.45
43	46.86	44.68	48.61	93	51.07	50.38	47.38
44	46.13	44.24	48.28	94	49.70	49.47	46.71
45	45.82	44.33	48.77	95	45.69	49.95	46.87
46	42.61	43.50	47.76	96	45.67	49.74	47.15
47	43.98	44.18	46.91	97	47.22	49.62	47.33
48	41.99	44.42	47.00	98	49.68	50.37	47.93
49	41.13	43.63	45.55	99	49.07	49.39	47.96
1850	44.05	44.94	45.45	1900	49.74	47.72	48.20
51	47.47	45.04	44.97	01	50.57	48.12	48.84
52	47.52	45.75	44.81	02	49.54	48.38	49.04
53	47.26	44.63	44.65	03	46.52	48.10	49.24
54	50.74	45.93	45.09	04	47.96	48.52	49.00
55	46.41	45.23	44.78	05	47.23	48.48	49.22
56	43.50	45.49	44.49	06	45.47	48.02	48.88
57	42.93	45.22	44.70	07	45.49	47.52	48.57
58	43.85	45.55	44.99	08	44.37	45.44	47.91
59	43.37	47.06	45.34	09	42.88	45.42	47.40
1860	43.12	44.76	44.85	1910	42.22	44.72	46.22
61	44.99	44.25	44.64	11	42.03	43.75	45.94
62	44.99	43.96	44.85	12	42.08	43.79	46.08
63	45.20	44.52	44.58	13	42.82	43.60	45.85

Assuming for the time being that the New Bedford record is an indication of what might be expected elsewhere, the curves show conclusively that a 5-year record is too short to give dependable results. The averages vary from 41.13 in. to 58.64 in. Expressed in different terms, these figures vary from 11.4% below to 26.2% above the 100-year average of 46.45 in. The 10-year curve is more regular than the 5-year curve; but the ordinates vary from 6.9% below to 16.8% above the 100-year average. On the other hand, the 20-year averages vary only from 44.48 in. to 49.24 in., or from 4.2% below the 100-year average to 6% above. Hence during the entire century it would not have been possible to select any 20 successive years in which the average rainfall would have deviated by more than 6% from the 100-year average.

This should be accurate enough for all practical purposes, although an examination of the 20-year curve shows further that only in a few cases does a variation of as much as 6% occur. About 77% of the 20-year averages fall within 4% of the average for the century, which is close enough for most purposes.

It would be interesting to know whether other long rainfall records would show similar results, and whether these conclusions could properly be applied to the flow of rivers.

⁂

Pumping Plant for Dry Dock No. 1, Balboa Terminal, Balboa, C. Z., will be furnished by Henry R. Worthington, New York, under a contract recently let. The plant comprises four main pumps, two drainage pumps and one bilge pump. The four main units are identical in all parts, each consisting of a 54-in. vertical-shaft, single suction, single-impeller, volute centrifugal pump, with a minimum capacity of 11,000 cu.ft. of sea water per minute, when pumping against static heads ranging from 0 to 48 ft., and when operating at 250 r.p.m. Each unit is direct-connected to a 1000-hp. constant-speed alternating-current vertical-shaft motor of the squirrel-cage induction type, three-phase, 25-cycle current at 2200 volts. The average overall efficiency of each unit pumping against the total heads encountered must be not less than 64.5%. The two drainage pumps are of the same type as the main units, each consisting of a 20-in., vertical-shaft, volute centrifugal pump with a minimum capacity of 1200 cu.ft. of sea water per minute, against the range of heads encountered, when operating at a speed of 750 r.p.m. The bilge pump is of the vertical self-contained centrifugal type, having 4-in. suction and 3-in. discharge, with a capacity of 25 cu.ft. of sea water per minute when pumping against any stage of the tide. The overall efficiency is specified at not less than 32%. The contractor will also furnish the floors, platforms, gangways, ladders, stairs and handrails necessary for safe and convenient access to all parts of the plant equipment. The time for delivery of all the material is specified at 210 days. The Balboa dry dock is one of the largest in the world, having a length of 1110 ft., an entrance width of 110 ft. and a depth over the sills of 41.5 ft. at high water.

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*4923 Winthrop Ave., Chicago, Ill.

Concrete Bridges with Stone and Brick Facing

By C. E. Drayer*

The use of facing on concrete bridges is displayed in interesting contrast by two recently built arch bridges in Fort Wayne, Ind. In both cases the esthetic value of the facing quite evidently justifies its use. To what extent the facing affects repair and maintenance charges will have to be learned from slow experience.

Brick Facing: Tennessee Ave. Bridge

Tennessee Ave. crosses the St. Joseph River by two reinforced-concrete arch spans of 105 ft. The view shown in Fig. 1 brings out the successful selection of form and the good appearance of the bridge in adaptation to the surroundings. The bridge has an ornamental facing of dark brick and white stone. The balustrade is wholly built of brick and stone, the panels being of brick, while the coping and posts are of stone. In the facing of the arch itself stone is used only for the quoins and for picking out the panels.

The main surface of the arch is formed of wire-cut brick of deep-red color, with matt surface, and is laid in Flemish bond. There is enough variation of color in the brick itself to make the surface as a whole quite picturesquely variegated (see Fig. 2). The stone trim is No. 1 oölitic Bedford sandstone. The pieces used in the balustrade are of very substantial character, the coping rail being in one piece between posts or 12 ft. 8½ in. long. The intermediate posts are solid single pieces extending through the thickness of the balustrade, and the pier caps are single pieces 3 ft. 5½ in. by 9 ft. 4 in.

The bridge was designed by A. W. Grosvenor, of Fort Wayne, and built under his supervision by the Lafayette Engineering Co., Lafayette, Ind., contractor. Above the arch barrel no forms were used. The concrete was placed inside the brick facing, the latter being carried up sufficiently in advance to permit of doing this concreting in 2-ft. layers.

The cost of the bridge was a little over $39,000, including the pile foundation.

Stone Facing: Coombs St. Bridge

Fig. 3 shows the stone-faced bridge over the Maumee River on Coombs St., in the suburb of Lakeside. Here the facing used is sandstone. The esthetic effect depends largely on the emphasis of the arch barrel by the quarry-faced ring stones of the facing, although the effect is somewhat reduced by the detail of the railing. The cost of this bridge was about $65,000.

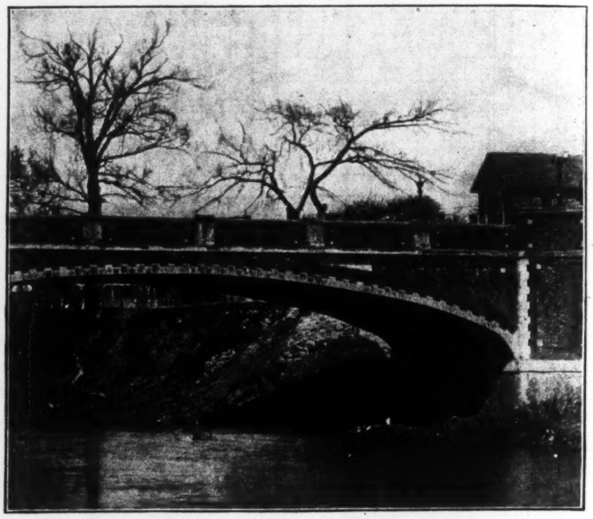

Fig. 2. Detail View, Tennessee Ave. Bridge

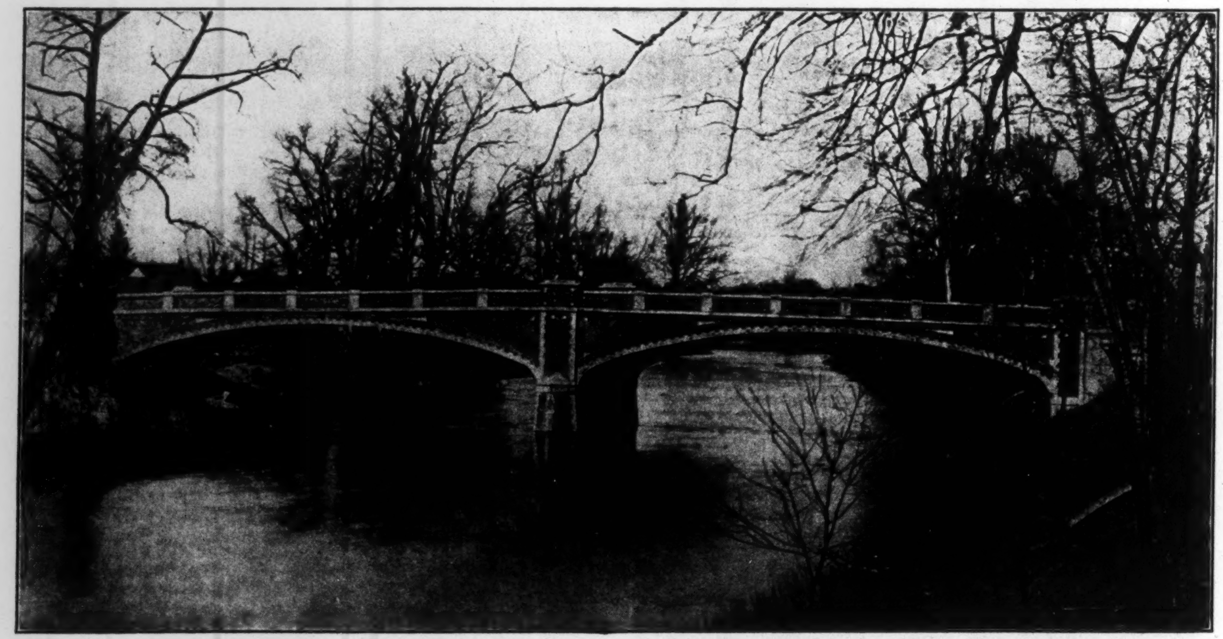

Fig. 1. Tennessee Ave. Bridge, Ft. Wayne, Ind.
(Brick facing with stone trim)

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*1801 East 93d St., Cleveland, Ohio.

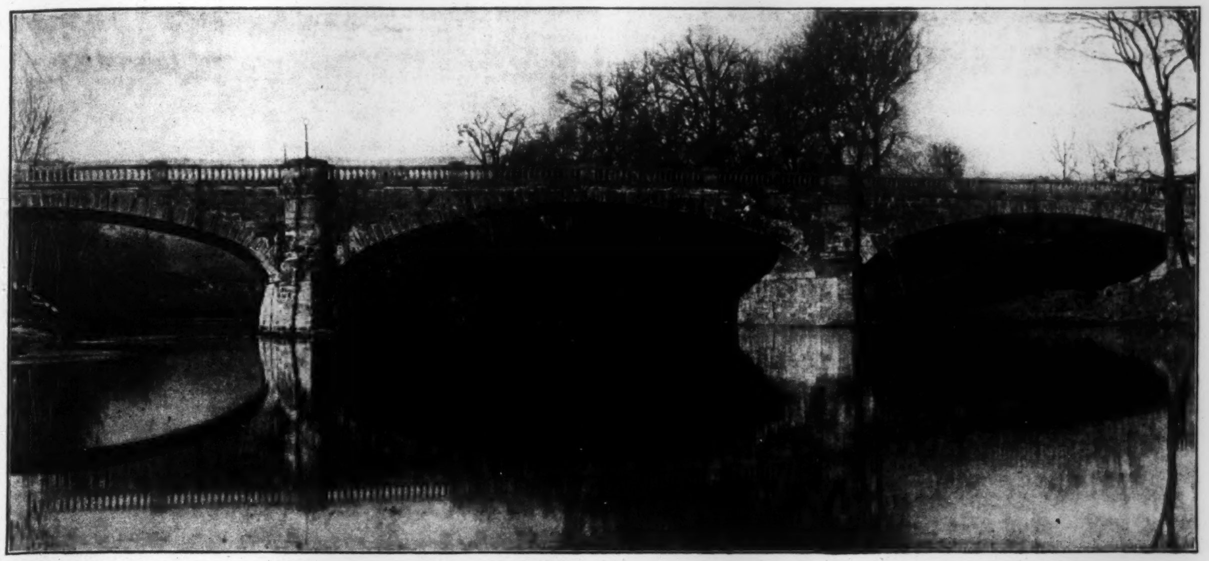


FIG. 3. COOMBS ST. BRIDGE
(Sandstone facing, concrete balustrade)

The bridge is said to have been built to curves sketched empirically to fit lines traced from drawings of the Tennessee Ave. bridge, under the following curious circumstances:

According to Indiana law, the county must have plans to accompany the advertisement for the letting of a bridge, and any person may submit a plan provided it is filed with the auditor ten days before the bids are opened. When the county commissioners of Allen County were ready to let a contract for the Coombs St. bridge they accepted plans drawn by a man who had been employed as carpenter foreman on the construction of the Tennessee Ave. bridge. His plans were drawn without any study to determine the necessary size of the various parts of the structure, but from a cardboard templet which he made of the arch curve of the Tennessee Ave. bridge from contract drawings of it on file in the county commissioners' office. The radii of the arch ring of the Tennessee Ave. bridge were changed to make a curve suitable, in his mind, for the new spans.

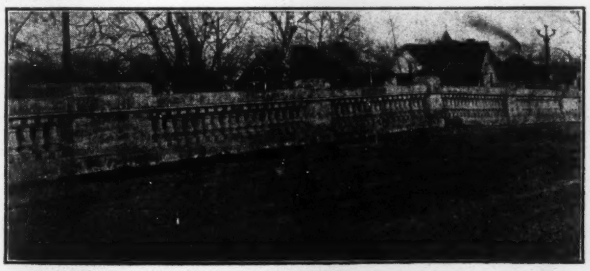


FIG. 4. ROADWAY SUMMIT AND CONCRETE BALUSTRADE, COOMBS ST. BRIDGE

Construction brought out both the amusing and the serious features of the design. In the Tennessee Ave. bridge the two spans are each 105 ft. long, while in the Coombs St. bridge the channel span is 100 ft. long, flanked on each side by a 90-ft. span. When forms were laid out by the contractor for the Coombs St. bridge, using radii shown on the plans, each span failed by about 2 ft. to connect up with the masonry it was to rest upon. So he and his foreman made full-sized arch-ring templets, pretty much by eye, that would spring over the foundations. Their curves reduced the waterway below what it would have been if proper elliptical curves had been used. The templets were taken to shops in Fort Wayne and Melan-type arch ribs bent to fit them.

Not only was the design of the arch curves defective, but in the plans of the Melan trusses a serious omission occurred, due to ignorance. The ribs were made in three sections, but no top and bottom flange plates were provided at the joints where the angles butt. In other words, at the two points of approximate maximum stress the flange connections containing two-thirds of the rivets at the joints were omitted.

⁂

San Francisco Specifications for Concrete Pavements—Some interesting points in the specifications for concrete pavements, written by M. M. O'Shaughnessy, City Engineer of San Francisco, and recently adopted by the Board of Supervisors, follow: The concrete is of 1 : 2 : 3½ mixture. After mixing, the concrete is deposited rapidly in successive batches; the concrete is deposited to the required depth and for the entire width of the pavement in a continuous operation between transverse and longitudinal joints without the use of intermediate forms or bulkheads. In case of a breakdown, concrete must be mixed by hand to complete the section or to an intermediate transverse joint placed at the point of stopping work. Any concrete in excess of that needed to complete a section at the stopping of work is not to be used in the work. Longitudinal joints filled with ⅛ in. of prepared felt are constructed between the curb and the pavement on each side of the roadway, and along the center line where the roadway exceeds 25 ft. in width. Transverse expansion joints are constructed in straight lines at right angles to the center line of the roadway for the full width of the pavement and at intervals not exceeding 25 ft. The surface of the pavement is sprayed with water as soon as the concrete is sufficiently hardened to prevent pitting and is kept wet until a sand covering is placed. As soon as this can be done without damaging the concrete, the surface of the pavement is covered with a layer of sand at least 1 in. thick, and covering kept moist for at least 10 days. The pavement is not to be opened for traffic for a period of at least 20 days after being laid. The contractor is required to maintain the sand covering for a period of at least 10 days and must erect and maintain barriers to protect the concrete from traffic, and any part of the pavement damaged by traffic or other causes prior to its official acceptance must be repaired or replaced by the contractor at his own expense in a manner satisfactory to the engineer.

Rail-End Connections for Bascule Bridges

A special design of mitered joint for the rail connections of bascule drawbridges has been in use for about three years at the Calumet River bridge of the Chicago & Western Indiana R.R., and is described briefly in a paper in *Bulletin 175* (March, 1915) of the American Railway Engineering Association. It was designed by W. A. Casler, Assistant Engineer of the railway.

The design was made after a study of the merits of square-cut and miter-cut rails, and a special feature is that it brings the rails into line regardless of the alignment of the bridge. The bridge alignment in this case is found to vary as much as ½ in. in summer, owing to warping. In the usual type of mitered or lap joint there is a possibility of the rails interfering or becoming jammed while closing, unless a very wide joint spacing is provided. Such a spacing is objectionable, as in connection with the decreased tread surface it causes severe pounding at the joint, and the consequent wear reduces the life of the connections. These objections are overcome in the design described. The main parts are manganese-steel castings, each forming in itself the track rail, guard rail and joint at the bridge connection.

The lifting ends are provided with guiding members, cast on the under side. These are tapered at the lower portion and then straight for a distance slightly greater than the height of the running rails. These guides enter pockets on the abutment, and thus bring the rail ends into line before the rails engage during the closing of the bridge.

The abutment rail ends are riveted to a bedplate made in two parts, these being put together with an insulated joint to permit the use of track-circuits for the signals. The bedplate has openings to receive the taper guides, with short heavy angles beneath the openings to form the sides of the pockets for the guides. This arrangement permits of a very close miter joint, as noted.

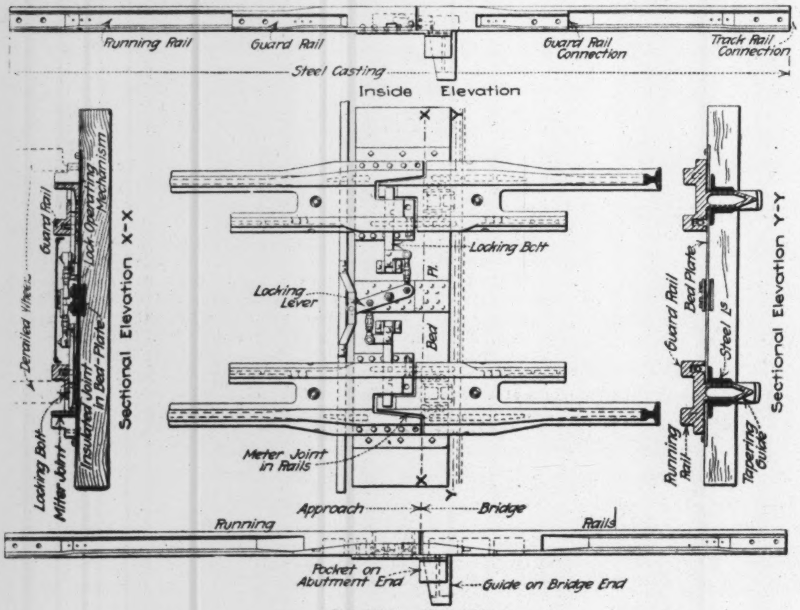

Running Rail
Guard Rail
Guard Rail Connection
Track Rail Connection
Steel Casting
Inside Elevation
Sectional Elevation X-X
Guard Rail
Lock-Operating Mechanism
Derailed Wheel
Insulated Joint in Bed-Plate
Locking Bolt
Miter Joint
X
Y
Locking Bolt
Locking Lever
Pl.
Bed
Meter Joint in Rails
Sectional Elevation Y-Y
Guard Rail
Bed Plate
Steel Ls
Running Rail
Tapering Guide
Approach
Bridge
Running
Rails
Pocket on Abutment End
Guide on Bridge End
Outside Elevation

FIG. 1. MITER JOINT FOR RAIL-END CONNECTIONS ON BASCULE BRIDGES; CHICAGO & WESTERN INDIANA R.R.

The locking is effected by horizontal sliding bolts whi engage the flanges of the lifting ends and hold them dow upon the abutment bedplate. Automatic latches preven the movement of the bolts when the bridge is open. Th locking bolts are operated by a lever pivoted in the center line of the track and connected to a switch-operating motor mechanism, controlled by the interlocking plant for the signals and derails.

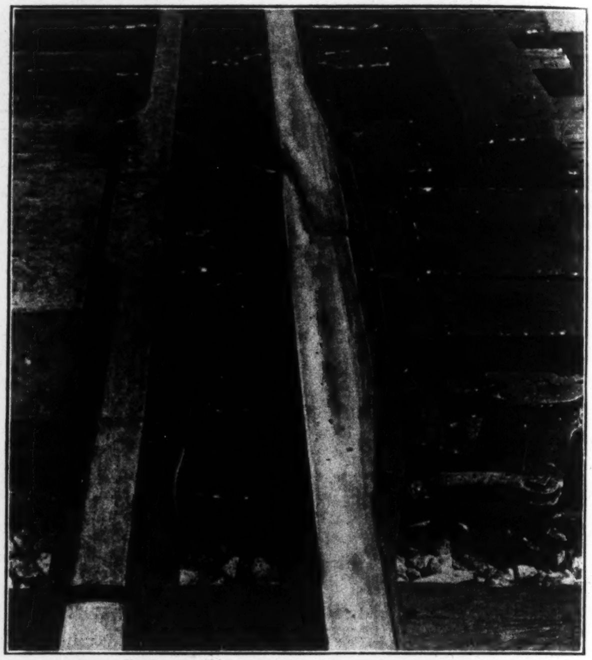


FIG. 2. MITER JOINT FOR RAIL-END CONNECTIONS ON BASCULE BRIDGES; SHOWING THE CONTINUOUS GUARD RAIL AND THE FLOOR TO CARRY DERAILED WHEELS OVER THE JOINT

Another feature of the device is the protection afforded to derailed trains. In Mr. Casler's opinion more attention should be given to guard-rail equipment at drawbridge connections and to the elimination of mechanism in the path of derailed wheels. It will be seen from the illustrations that in this case the guard rail is maintained continuously opposite the rail joint, and with a flange-way support to carry derailed wheels on their flanges. The locking bolts and operating mechanism are also protected from damage due to derailment. The device permits of using the 8-in. guard-rail spacing employed on fixed bridges, while some other devices require a 10-in. spacing. It is considered that a derailment at such a point would be no more dangerous than if it occurred upon a fixed bridge having the usual guard-rail protection.

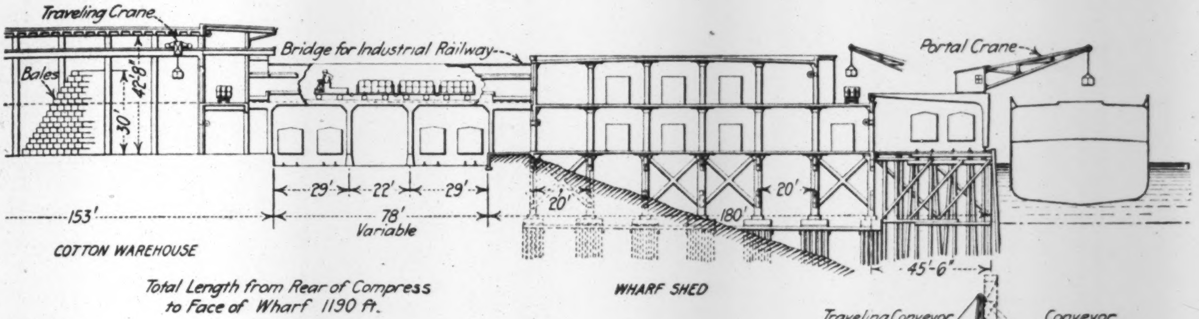
Mr. Casler believes that the mitered type of rail connection is superior to the square-end type. It gives smoother riding and can be made safer and less liable to injury by derailments, since it can be made free of obstructions in the path of derailed wheels. This last feature is difficult to obtain in sliding-bar or sleeve joints, where the operating rods are either in the guard-rail troughs or immediately adjoining the outer rails.

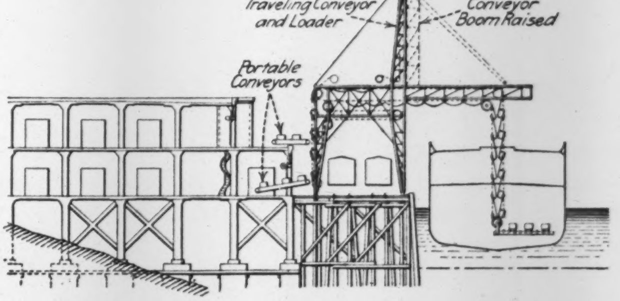
⁂

Cotton Warehouse and Terminal at New Orleans

Extensive new facilities for the cotton-shipping business at New Orleans, La., are being built by the Port Commission. These comprise a warehouse and terminal plant with capacity for storing nearly 500,000 bales and for handling and shipping about 2,000,000 bales annually, while future extensions are planned to double this capacity. The plant was designed by Ford, Bacon & Davis, consulting engineers, New York, and the work is being done under their direction. The designs were made with the coöperation of representatives of the Cotton Exchange. The Jefferson Construction Co., of New Orleans, has the contract for the buildings.

The site is on land reclaimed from the Mississippi River by hydraulic dredges pumping material behind a levee or bank. About 50 acres are occupied by buildings and an equal space by railway tracks and yards, the latter having capacity for about 2500 cars.





Cross-Section of the River Front Portion of the New Cotton Terminal at New Orleans, La.; Showing Methods of Handling the Cotton Bales

Along the waterfront will be a line of two-story wharf sheds 120 ft. wide (100 ft. on the upper floor), extending for a distance of about 2000 ft. Behind these will be a group of four warehouse buildings (in pairs) 670x270 ft., with tracks laid between them. Next to these will be two sorting sheds, 670x130 ft. At the rear will be a cotton-compress building, 410x230 ft., flanked on either side by a warehouse, 510x270 ft. The buildings will be of reinforced-concrete and steel-frame construction, with creosoted-pile foundations. In front of the wharf sheds will be a timber wharf of creosoted piles and timbers. This will have two railway tracks for cars delivering cotton direct to vessels, and on it will travel dock cranes and conveyors which span the railway tracks and deliver bales from the sheds to the vessels.

The warehouses are of the one-story cellular, or compartment, type, 35 to 45 ft. high, with no intermediate floors. This arrangement greatly reduces the cost, since all the load is carried directly upon the ground and all load-carrying floors and columns, with their foundations, are eliminated. The cost is said to be about $4 per bale, as compared with $10 per bale if the floor type of warehouse had been adopted. For handling and transporting the bales in the compartments there are overhead traveling cranes and hoists. Special hoisting devices are provided also, by which a bale can be taken from the bottom of a pile without removing the bales above it.

For handling the bales from cars to the warehouses and from warehouses to the wharf sheds there will be a system of narrow-gage industrial tracks on which small cars will be operated by electric locomotives. These tracks will be on the level of both floors of the wharf sheds, being connected by inclines and the upper-level tracks being carried on runways extending between the buildings. The bales delivered on either floor of the wharf sheds will be transferred to ships or lighters by means of portal cranes with revolving booms or by traveling conveyors.

⁂

An Employee May Use His Technical Knowledge gained in the service of an employer in connection with work for a competing employer after he leaves that service, notwithstanding a direct agreement to the contrary. This is the substance of a decision recently rendered by the Court of Appeal of Great Britain. As described in London "Engineering" of Apr. 9, the case was that of an engineer who had been chief draftsman of a manufacturing firm and later was placed in charge of its sales department. While in that position he made a contract with his employer that he would not for the term of seven years from the date of his relinquishing employment with him go into the business of manufacturing or selling pulley blocks, overhead runways, overhead traveling cranes, or any parts thereof. Notwithstanding this agreement, the engineer after leaving the employ of this company entered the service of a firm which was its chief competitor. The former employer appealed to the court for an injunction. The case was heard by the court and the judge ruled that the enforcement of the agreement would deprive the defendant and the public of the benefit of the skill and experience he had acquired in the plaintiff's employment and would prohibit him from using knowledge which formed part of his mental equipment. The case was carried to the Court of Appeal but this affirmed the judgment of the lower court. One reason the latter court gave for its decision was that the defendant at the time of signing the contract was not really in the position of a free man negotiating on equal terms with his employer, but was bound by a previous agreement made in 1906 for seven years.

Interstate Bridge Over the Columbia River, Portland, Ore.

By E. E. Howard*

SYNOPSIS—Bridge and approaches, construction of which is just being started, will extend across the Columbia River valley from the city limits of Vancouver, Wash., to the city limits of Portland, Ore., a distance of about 3¼ mi., and will include about 5000 lin.ft. of steel bridge structure and 12,000 ft. of embankment, with a secondary approach on the Oregon side, for which at the present time an embankment about 6000 ft. long will be built. The bridge and approaches will provide a roadway for street traffic and for street cars, and over the steel structures will provide a sidewalk. The Columbia River at times of extra-high water covers the entire 3-mi. width of the valley. The total cost is to be about $1,700,000.

The main channel of the Columbia River at Portland, Ore., is 3500 ft. wide, with a maximum depth of 30 ft. at extreme low water, and with variations from extreme low to extreme high water of 33 ft. The water rises each spring to about 20 ft. and about once in four years to about 25 ft. So far as known, it has reached 33 ft. only once. The bed of the river consists of sand, with small amounts of gravel extending to great depths. At the north shore very compact cemented gravel is found a few feet below the surface, dropping off to 100 ft. below at about 700 ft. from the north shore. Over the remainder of the river only sand with some gravel was found at depths of more than 100 ft.

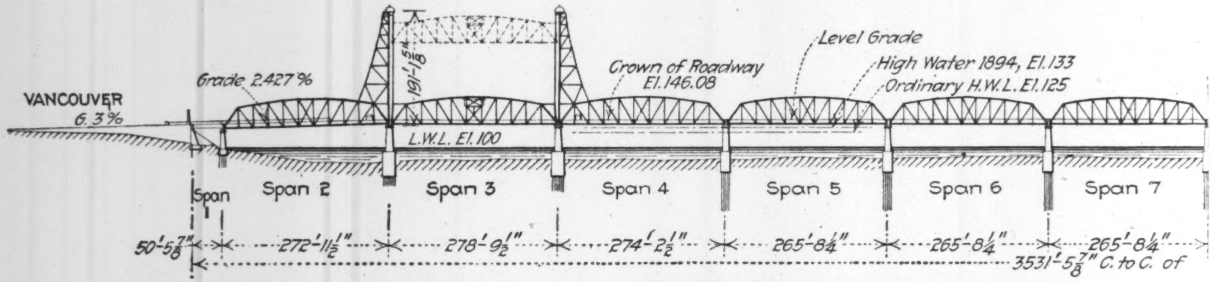


Fig. 1. Outline Elevation of the

The Oregon Slough forms an important secondary channel, particularly for flood conditions. It is about 1000 ft. wide and 25 ft. deep, and is separated from the main river by an island about 1500 ft. wide. The United States Government has built a dike some distance above the bridge site and the island to divert practically all of the low-water flow down the main channel of the river, the top of the dike being about 6 ft. above low water. The bed of this slough is principally sand.

The Columbia Slough provides some drainage near the Oregon side of the valley and is about 300 ft. wide and 20 ft. deep at low water. The bottom is of clay and sand. Hard and compact gravel is found about 80 ft. below low water.

The average elevation of the ground across the river valley is from 12 to 15 ft. above low water, so that much of it is inundated at every high-water period.

Bridge Structure

The roadway is 38 ft. wide between curbs, or 41 ft. between trusses, with steel handrails where required. Over the steel spans there is one sidewalk 5 ft. wide. Double-track street-car tracks for both standard and narrow gages are placed in the middle of the roadway, spaced 10 ft. 8½ in. c. to c. The vertical clearance in trusses is 21.5 ft. The entire roadway, both on the bridges and embankment, is to be paved with hard-surface pavement.

The live-loads for which the structure is designed are as follows:

For floor system:
  On street-car tracks—50-ton cars on both tracks.
  On roadways—12-ton motor truck, Class A, uniform load, with special provisions for 24-ton machinery truck.
  On sidewalk—120-lb. per sq.ft.
  For impact allowance, 50 per cent. is added to all except sidewalk loads.
For trusses and girders:
  On street-car tracks—40-ton cars on both tracks.
  On roadways—Class B uniform load.
  For impact allowance the following percentages of each load is added to it:

For street-car loading—$I = \frac{230}{N\,L + 300}$, but not greater than 50 per cent.

For roadway loading—$I = \frac{180}{N\,L + 30}$, but not greater than 50 per cent.

Where
  I = Percentage;
  L = Length of load on bridge producing maximum stress;
  N = Number of loaded tracks for street-car loading or number of lines of traffic for highway loading.

The working stresses used in the design are as allowed by Harrington, Howard, and Ash specifications.

Main Truss Bridge

The bridge over the Columbia River (Fig. 1) consists of a series of through riveted truss spans with curved top chords, three spans 275 ft. long and ten spans 265 ft. long, together with a small deck-girder span at the Vancouver end, making a total length of 3531 ft. 5⅞ in. between end shoes. Provision for navigation on the river is made by a vertical lift span of the Waddell & Harrington type. The central of the three 275-ft. spans is arranged to lift between towers on the other two, so as to afford a channel 250 ft. wide at right angles to the current of the river and 150 ft. high above ordinary high water.

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*Harrington, Howard & Ash, Consulting Engineers, Kansas City, Mo.

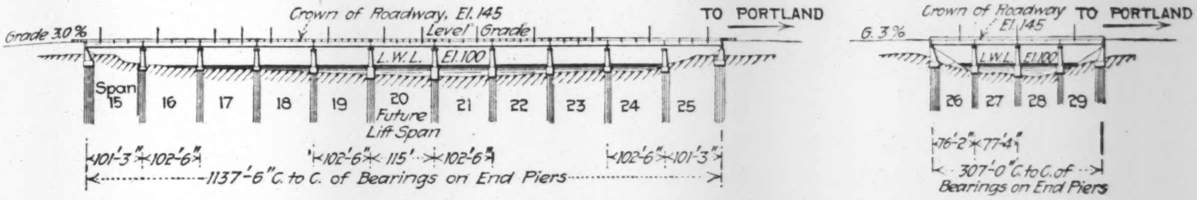
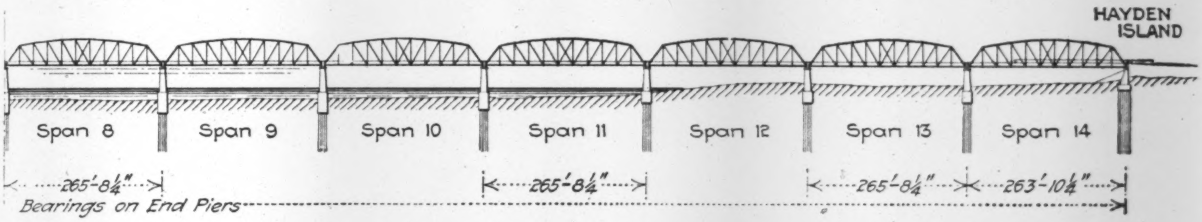

Crown of Roadway, El. 145
Grade 3.0%
Level
Grade
TO PORTLAND
L.W.L.
El. 100
Span 15
16
17
18
19
20 Future Lift Span
21
22
23
24
25
101'-3"
102'-6"
102'-6"
115'
102'-6"
102'-6"
101'-3"
1137'-6" C. to C. of Bearings on End Piers
Crown of Roadway El. 145
TO PORTLAND
6.3%
L.W.L.
El. 100
26
27
28
29
76'-2"
77'-4"
307'-0" C. to C. of Bearings on End Piers

FIG. 2. OUTLINE ELEVATION OF THE TWO SLOUGH CROSSINGS

The trusses are spaced 41 ft. c. to c. with the roadway between and the sidewalk beyond one truss. The floor is a reinforced-concrete slab 5¼ in. thick, and the sidewalk is also of reinforced concrete. The arrangement of the beams and of the concrete slab for the floor merits attention, as it is new and original (Fig. 3). Between usual floor-beams are longitudinal stringers spaced about 9 ft. c. to c. On top of the stringers, extending entirely across the roadway, there are 8-in. I-beams spaced about 33 in. apart. These roadway cross-beams are bent to conform to the crown of the roadway, and the concrete slab rests immediately on top of them. The six rails required for the two-gage, double-deck street-car tracks rest immediately upon the roadway cross floor-beams and are fastened to them by standard Carnegie steel tie clips. The rails are 7 in. high, so that there remains a space of 2 in. in depth above the top of the concrete slabs to the top of the rail for the 2-in. special bituminous concrete surfacing which forms the pavement. To afford a rail heading which could be removed, if necessary, for access across the rails, or to the bonding, without injury to the roadway slab, the space, about 5 in. wide, on each side of each rail, is filled with concrete to the top of the rails, a flangeway being provided by forming this concrete.


HAYDEN ISLAND
Span 8
Span 9
Span 10
Span 11
Span 12
Span 13
Span 14
265'-8¼"
265'-8¼"
265'-8¼"
263'-10¼"
Bearings on End Piers

MAIN TRUSS SPANS, INTERSTATE BRIDGE

This arrangement of floor has the advantage of providing a concrete slab longitudinal in the direction of travel, with comparatively short spans, and of making the supporting steel beams of very simple shop work. It is expected that the cross floor-beams will be formed to their curve by shimming up the hot-beds to a proper curve, so that the beams may form while cooling. Owing to the lateral stiffness of the floor as constructed, the lower laterals of the spans are somewhat lighter than they would be for an open-deck bridge.

Two fixed ends and two expansions of the spans are placed adjacent so as to reduce the number of expansion joints to a minimum. The expansion joints are made by the usual type checkered plates supported by and sliding upon metal supports. The corresponding expansion joints for the rails between the spans consist of manganese-steel castings placed beside webs of the rails, for which one side of the rail heads is planed off.

The towers supporting the lift span are of simple construction, riveted throughout, and so arranged that the front columns of the towers support all the loads of the lift span and counterweights. The rear columns are bracing members.

SUBSTRUCTURE

The river at the site of the bridge is subject to a certain amount of scour, but inspections of the soundings taken for many years past fail to disclose any indication of scour to extreme or unusual depths, although the river for some distance upstream and about three miles downstream is deeper than at this site. The exceptional facilities for securing piles of great length at a very reasonable cost were a considerable factor in determining the exact type of piers to be used.

The piers (Fig. 4) are to be constructed of concrete, containing and resting upon piles sunk by means of water jets to a depth of about 105 ft. below low water. Open cribs of timber, braced by transverse trusses and forming permanent parts of the pier bases, will be sunk to depths of from about 20 to 25 ft. below the river bed and the piles jetted down inside the cribs, averaging about one pile to 10 sq.ft., area of crib. Concrete will then be deposited through the water in sufficient quantities to seal the bottom of the crib; and after this concrete has hardened the crib will be pumped out, the piles will be cut off a short distance below low water, and the remainder of the concrete for the pier placed in the open. A certain

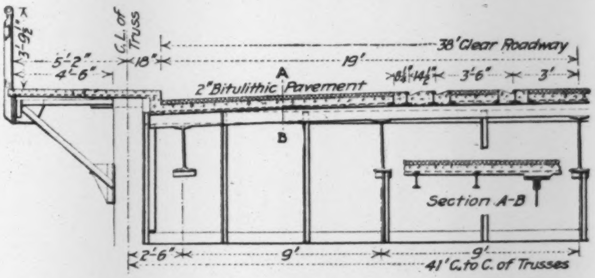

3'-9½"
C.L. of Truss
5'-2"
4'-6"
18"
38' Clear Roadway
19'
A
2" Bitulithic Pavement
8¼"
14½"
3'-6"
3'
B
Section A-B
2'-6"
9'
9'
41' C. to C. of Trusses

FIG. 3. DETAILS OF FLOOR-BEAM AND ROADWAY, INTERSTATE BRIDGE

amount of heavy stone riprapping will be placed about the piers, and will be replenished, if necessary, during the first two years after the completion of the structure.

The piles used will thus be about 120 ft. long in single sticks, about 10 or 12 in. in diameter at the top and about 22 in. at the butt. No followers will be used in driving, but the necessary cutoffs will be wasted. Piles of this length can be purchased at the bridge site for about 12c. per lin.ft. In the average piers under the 265-ft. span there are 90 piles.

The upper ends of these piles are embedded into the concrete of the base of the piers from 15 to 20 ft., so that the pile forms a definite portion of the pier. It is evident that even though some unusual scour should on some extraordinary occasion extend below the bottom of the base, the pier would still be stable, owing to the great depth of penetration of the piles and to the rigidity of their upper support. The occurrence of ice on the Columbia River in sheets or floes of large size is very rare, so that the concrete piers need no special protection of steel or stone facing.

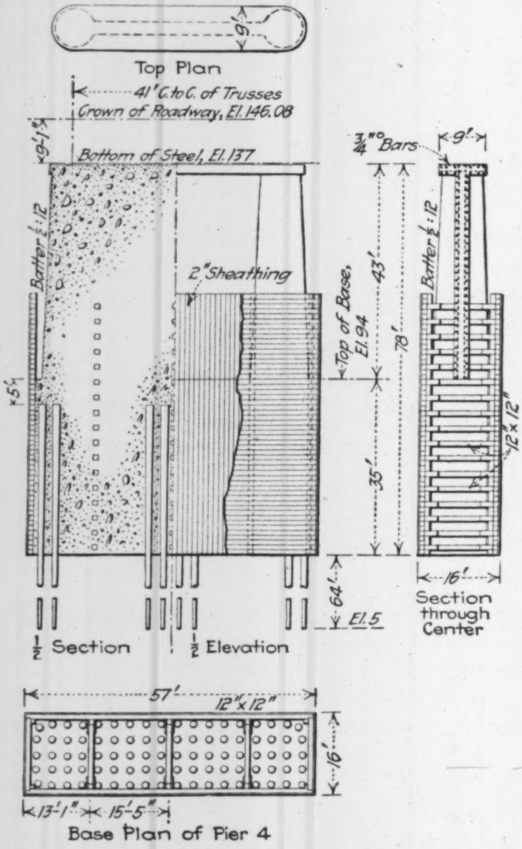


FIG. 4. TYPICAL PIER ON INTERSTATE BRIDGE ACROSS COLUMBIA RIVER, PORTLAND, ORE.

The shafts of the piers above the base are composed of two cylindrical battered columns, one placed under each pair of shoes. These columns are joined by a vertical diaphragm and by a horizontal coping at the top, both of which are reinforced with steel. This design saves considerable weight, which otherwise would require supporting piles, and eliminates a large amount of concrete unnecessary for any structural purpose.

SLOUGH CROSSINGS

The bridges over the sloughs (Fig. 2) consist of deck spans providing a roadway and floor of the same type and character as previously described, except that the girders are placed 23 ft. apart transversely and a portion of the roadway and sidewalk is carried on cantilever beams. There are also other minor differences in details, such as necessary trolley poles, etc. These spans rest on concrete piers supported by piles of the same general type as that described for the main river. The piles will be sunk to about the same depths, but as the likelihood of scour is much less in the sloughs, the bases are not carried as far below the river bed.

The bridge over the Oregon Slough consists of ten deck-girder spans 100 ft. long and one span 115 ft. long, making the total length 1137 ft. 6 in. At the present time there is no navigation in the Oregon Slough above the site of the bridge, but as there is possibility of navigation being developed above the site, it was necessary to provide for some type of movable span to furnish the necessary channel openings for vessels. Permission was secured from the War Department to build the structure with all fixed spans at the present time, with the provision that one span be so arranged that at any time in the future, when it may become necessary, it can be converted into a movable span by providing towers at each end and by equipping it with machinery, counterweights, etc., so that it may be operated as a vertical lift span. The 115-ft. span previously mentioned is arranged for such possible use and will afford a channel 100 ft. wide. This provision and arrangement save the commission an expenditure at the present time of about $30,000 and permit a movable span to be provided when necessary without discarding any parts of the present structure and without interrupting traffic.

The bridge over the Columbia Slough consists of four deck-girder spans, each 75 ft. long, of the same general type as that described for the Oregon Slough. After the first tentative approval of the plan for this slough bridge was given by the War Department the status of this slough was changed so that there has become a remote possibility that it may at some time be considered navigable. It has therefore been agreed that should such development occur one of these 75-ft. spans will be made to lift in the same manner as described in the foregoing, providing a clear channel opening of 60 ft. in width.

EMBANKMENTS

In the main approach on the Oregon side there will be about 1,000,000 cu.yd. of embankment and on the secondary approach there will be about 500,000 cu.yd. The embankments will be made of sand dredged probably from the Oregon Slough. The material will be lifted by suction dredges and will be transported to position through pipes. For the main fill there is being installed a 24-in. suction dredge, with electrically operated pumps, which will deliver the material about 5000 ft. At this point there will be installed a booster pump, also electrically operated, so that for the extreme end of the approach the material will be carried through about 10,000 ft. of pipe. The embankments are to be 42 ft. wide on the top, with slopes of 2 to 1, and average 20 to 25 ft. high.

The upstream side of the embankment will be protected to an elevation of about 20 ft. above low water by concrete slabs laid on the slope of the finished embankment. Here slabs are to be 4 in. thick, reinforced with wire mesh and in strips of about 8 ft. wide, extending continuously up and down the slope. The overflow of water, which at times inundates most of the river valley, is largely back water and has very little perceptible current, except that caused by its outflow from the river over the land as the river rises and that caused by its return flow to the river as the river falls. The period of most rapid current, with corresponding danger of erosion, is when the water is just rising above the surface of the ground and when it is falling to its lowest point. The concrete protection part way up the slopes will therefore guard against erosion at these periods. It is planned to sow the remainder of the slopes with grass seed, in an effort to develop a compact sod covering the sides.

The embankments will be paved with some form of hard surface paving, the exact character of which has not yet been decided. As they will be principally of sand pumped into position, it is expected that there will be almost no settlement, so that the pavements may be constructed in time for the completion of the rest of the bridge.

CONTRACT DETAILS

The consulting engineers prepared complete detailed plans covering every feature of the structure and very complete and definite specifications for every part. Bids were called for on the unit basis to be compared upon basis of the approximate quantities of the various materials as given in the specifications. In order to secure the best possible competition, the total contract was divided into twelve units and into such divisions as seemed naturally applicable. Bids were received on Feb. 23, 1915, and contracts were let soon thereafter to six bidders. The manufacture and delivery of the superstructure metal work for the main river bridge are in the hands of the United States Steel Products Co. The manufacture and delivery of the superstructure metal work comprising the girders of the Slough bridges is in the hands of the Northwest Steel Co., of Portland, Ore. The erection and painting will be done by Porter Bros., of Portland. All the substructure work is in the hands of the Pacific Bridge Co., of Portland. The concrete floor will be placed and the pavement laid by the Warren Construction Co., also of Portland. The construction of the principal portion of the embankments and of the concrete protection on them will be done by the Tacoma Dredging Co., of Tacoma, Wash., and the second embankment will be built by the Standard American Dredging Co., of Oakland, Calif. Contracts for the lighting system and for the pavement upon the embankments have not yet been let. The large number of duplicate spans and the careful manner in which the spans were detailed warranted the manufacturers of the steelwork in making exceedingly low prices. These features likewise contributed to securing a very low price for erection. The successful bids on the structure are to be given in the Construction News Supplement to ENGINEERING NEWS of July 1, 1915.

The erectors are planning to erect, rivet and paint the spans on a dock at the shore, to transfer them to barges, and to float them to position on the piers without the use of falsework. The contracts covering the total construction were let for about $230,000 less than the money provided, so that the commissioners were able to arrange immediately for the construction of the secondary approach previously mentioned, to accommodate a portion of the city not immediately adjacent to the principal approach.

The work of the various contractors has been arranged in order of time, so as conveniently to work together, that various operations may proceed consecutively and without interruption. It is expected that the bridge will be in service late in the fall of 1916. The engineering work is being handled in the name of the old firm of Waddell & Harrington; E. E. Howard and L. R. Ash are associated as Consulting Engineers. The bridge is being built under the direction of the Columbia River Interstate Bridge Commission, comprising the commissioners of Clarke County, Wash., and of Multnomah County, Ore. Multnomah County issued $1,250,000 of bonds and Clarke County, $500,000.

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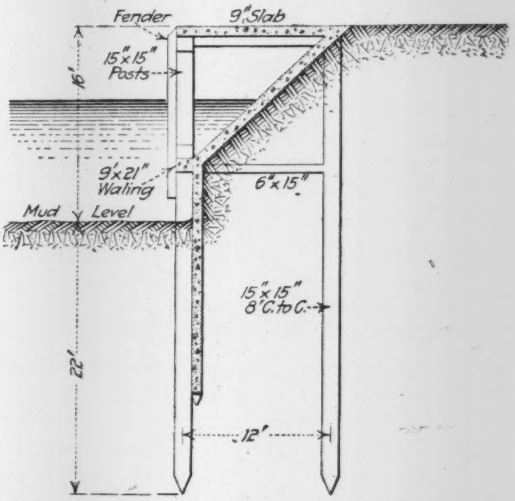
New Quaywall at Southampton, England

A new reinforced-concrete quaywall, recently completed in tidal waters at Southampton, England, is described in *Concrete & Constructional Engineering*, May, 1915. The design, shown in the accompanying section, consists of two rows of piles carrying a continuous deck and joined together by ties and by an inclined slab holding back the fill. The piles were first driven to refusal on 8-ft. longitudinal centers and behind the outer row was driven a line of sheetpiles. All of the piles were then broken down to a level and capped with longitudinal wales on the outside row and cross-ties leading from outside to inside rows. On the pile caps and wales were then formed the vertical posts carrying the deck and sloping slab retaining the earth fill.



REINFORCED-CONCRETE QUAYWALL

The section comprises forty-three 8-ft. bays and is of reinforced concrete, thoroughly tied together as to members. The dimensions are shown in the drawing.

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Reciprocal Liability Insurance for public-utility companies is being furnished by the Utilities Indemnity Exchange, of St. Louis, Mo., with a reported reduction of 40 per cent. in the cost to member companies. The members deposit each month sums about equal to the rates of stock companies. Out of the funds thus accumulated the losses and running expenses are paid, the latter being limited to 30 per cent. At the end of each year the unexpended sums are returned to the members. To guard against very heavy losses for which funds are not available the exchange reinsures the possible losses above the total of deposits.

Modern Submarine Torpedo Boats of the United States and Other Navies

By Herbert S. Howard*

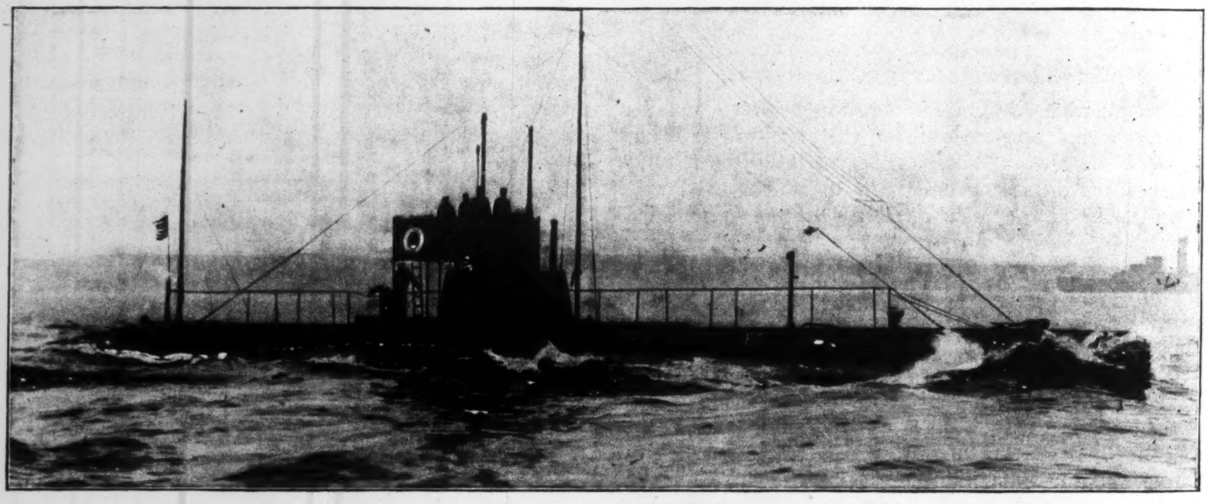
Submarines in the present war have come so much to the front that not only navy men but the laymen throughout the country are evincing great interest in them. The questions which most frequently come to the front seem to be: How do they submerge? How deep do they go? How do they see? How fast can they go? How is it that German submarines can go away over into the Irish Sea or other waters about England and return to Germany? Do they carry guns as well as torpedo tubes? And very often: Are our submarines as good as the German submarines we read of?

In the first place, submarine boats must be strongly built, as they must withstand the pressure of water when they are submerged. For this reason the structure of submarines is heavy when compared to surface vessels, and must be made of a shape capable of resisting high pressure. It is the practice in all countries to design submarines to withstand submergence to depths of 150 to 200 ft., and beyond such depths they must not go.

To submerge a submarine boat, water is admitted to ballast tanks, thus destroying the reserve buoyancy of the vessel. When it is desired to bring the vessel to the surface, water is pumped or blown by compressed air from these tanks. In some types of submarines these tanks are located within the main hull, which is circular in section. In some other types the tanks are located outside of the circular-section hull, between it and a light exterior hull, more or less ship-shaped. Our submarines and those of England are practically all of the first type, while those of Germany and France are of the latter type. In all submarines, however, water is taken in to submerge.

When submerged, submarines ordinarily receive no fresh air, and a submarine may remain submerged for about 10 hours before the air becomes too foul for breathing. In many foreign submarines devices for regenerating the air are fitted, to permit them to remain submerged a much longer time, and it is worth noting that devices of this nature have been tested and are now under consideration for the submarines of our navy. When running submerged the submarine is supplied with one or more periscopes, with which it can see, provided the vessel is only a short distance below the surface. These are optical instruments with lens systems similar to those of a telescope, but with prisms at the top and bottom to turn the rays of light down, and out at the bottom. When completely submerged, however, the submarine is blind. Various forms of searchlights, etc., have been suggested for under-water vision, but so far none have promised success.

Speed in submarines is a feature much sought after. Due to limitations of electric power, size of battery, etc., the submerged speed cannot at present be brought to a high figure. In modern submarines this varies from 9 to 11 knots, and this speed can be maintained for only one hour. If a slower speed is used, the distance covered will be greater, but the maximum submerged radius of a modern submarine will probably be 100 miles at 5 knots.



United States Submarine Torpedo Boat E2

Surface speed offers greater possibilities of development and increase, and along these lines all countries are now working. For several years 14 knots has been considered about a maximum, but with development in oil engines, greater speeds have been attained. Some of the English submarines in service make 16 knots, and some German submarines 17 or 18 knots. At the present time, however, both in this country and abroad, there are submarines building of 20 and 21 knots speed. In such vessels steam or Diesel engines are used. None of these fast vessels are in service, so that it remains for the future to show whether they will usurp the place of the torpedo-boat destroyer. The radius of action of a modern submarine on the surface varies from 2500 to 5000 miles, so it may be seen that long trips are possible.

All modern submarines carry torpedoes as their essential armament. In general it is foreign practice to fit two or more tubes in the bow and two in the stern, while in our navy we have adhered to a bow arrangement with two to four tubes grouped there together. To fire these torpedoes, the periscope must of course be exposed and the vessel herself pointed at the enemy. It is not always realized, and so may be worth noting, that the torpedo itself is really a small submarine boat with high-powered engines. With modern torpedoes, speeds of from 35 to 40 knots are obtained, with ranges up to 4000 yd. or more. Submarines, however, usually fire their torpedoes at ranges of from 600 to 2000 yd. In addition to torpedoes, submarines nowadays generally carry one or two small guns, and the use to which such guns may be put has been brought out clearly in the present war.

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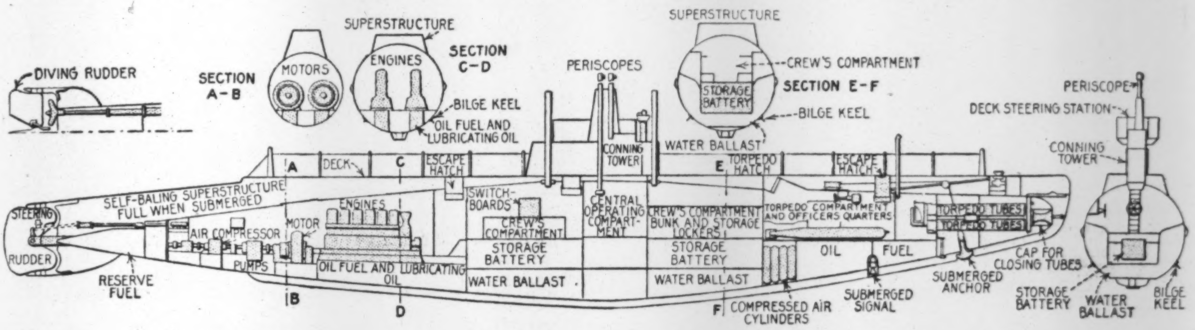
*Naval Constructor, United States Navy Yard, Washington, D. C.

It is often thought that a submarine is a mass of machinery and that the life on board is simply existence in a whirl of shafts, levers, etc. A submarine is indeed filled with machinery and the crew are mechanical experts; but the quarters provided for the crew are as good as those on a torpedo boat. Bunks are furnished for all the men; electric ranges are installed for cooking food, and everything is done to make these vessels habitable and comfortable as far as possible for comparatively long cruises. For example, fuel, supplies, fresh water, etc., can be carried by modern submarines to make a cruise of 5000 miles. This is a fact not generally realized.


DIVING RUDDER
SECTION A-B
MOTORS
SUPERSTRUCTURE
ENGINES
SECTION C-D
BILGE KEEL
OIL FUEL AND LUBRICATING OIL
PERISCOPES
SUPERSTRUCTURE
CREW'S COMPARTMENT
SECTION E-F
STORAGE BATTERY
BILGE KEEL
PERISCOPE
DECK STEERING STATION
CONNING TOWER
STEERING
RUDDER
RESERVE FUEL
SELF-BAILING SUPERSTRUCTURE FULL WHEN SUBMERGED
AIR COMPRESSOR
PUMPS
MOTOR
A
B
DECK
C
D
ENGINES
ESCAPE HATCH
SWITCH-BOARDS
CREW'S COMPARTMENT
STORAGE BATTERY
OIL FUEL AND LUBRICATING OIL
WATER BALLAST
CONNING TOWER
CENTRAL OPERATING COMPARTMENT
WATER BALLAST
E
TORPEDO HATCH
CREW'S COMPARTMENT BUNK AND STORAGE LOCKERS
STORAGE BATTERY
WATER BALLAST
F
COMPRESSED AIR CYLINDERS
ESCAPE HATCH
TORPEDO COMPARTMENT AND OFFICERS QUARTERS
OIL
FUEL
SUBMERGED SIGNAL
SUBMERGED ANCHOR
TORPEDO TUBES
TORPEDO TUBES
CAP FOR CLOSING TUBES
STORAGE BATTERY
WATER BALLAST
BILGE KEEL

SECTIONS OF TYPICAL SUBMARINE TORPEDO BOAT OF THE HOLLAND TYPE
(From a published drawing)

A modern submarine—and this applies to our own as well as other navies—is a vessel displacing about 450 tons on the surface and 600 tons submerged. The surface speed is from 13 to 15 knots and the submerged speed from 10 to 11 knots. Such a vessel would be 150 to 160 ft. long. Within the boat a certain space is taken by ballast tanks, for as I have stated water is admitted to destroy the buoyancy and to permit the vessel to submerge. The remainder of the space is given up to engines, electric storage battery and motors, torpedoes, crew's quarters and central operating compartment. In this last-named space are grouped the important means for controlling the vessel—the controls for flooding ballast tanks, the air connections for blowing water out of them, the wheels for controlling the steering rudders and the diving rudders, and the periscopes.

When the boat is to submerge, all the deck gear is taken down and all openings in the hull are tightly closed before water is admitted to the tanks. When the boat is running on the surface of the water rail stanchions are fitted, a small bridge is rigged, radio masts are hoisted, and the submarine becomes a small cruising vessel.

In our navy we have kept pace with the world in submarine development. Most of our submarines are of about the size and type described in the foregoing; but in addition we are building at present one large submarine of about 1000 tons surface displacement and of about 20 knots speed, and appropriations for two more such vessels were recently made by Congress. This program parallels those of England, France and Germany, which, in addition to their submarines of 400 or 500 tons surface displacement, are also building submarines of from 1000 to 1100 tons and of from 20 to 21 knots speed.

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Growth of London Passenger Traffic

The marvelous development in passenger traffic in American cities since the introduction of the electric street car is closely paralleled by the development in the principal cities of Europe. London *Engineering*, in its issue of Apr. 30, presents the accompanying table of passenger traffic in Greater London. From the figures in the table it will be seen that the passenger traffic of Greater London substantially doubled in the years from 1906 to 1913. This growth was due to the increase of the habit of travel far more than to actual increase in population.

During the first fifty years of the nineteenth century the population of London grew at an average rate of a little over 30,000 per year. In the latter half of the century, however, the increase was very much more rapid, reaching nearly 95,000 per year in the last decade of the century. In the first decade of the twentieth century the rate of increase dropped to 67,000 per year, the explanation of this being the extensive development in this period of suburban districts beyond the boundary lines of Greater London. The enormous expansion of omnibus traffic in very recent years has been coincident with the introduction of the motor omnibus in place of the horse-drawn vehicle.

PASSENGER TRAFFIC IN GREATER LONDON

	Number of Passengers Carried (1 = 1000)					
Year	By Railway (Local Companies)	By Tramway (Approximate)	By Omnibus*	Total (Approximate)	Estimated Population of Greater London 1 = 1000	Number of Journeys per Head
1867	40,547	Not available	41,424	81,971	3605	22.7
1871	72,636		43,556	116,192	3885	29.9
1876	115,326		51,157	166,484	4303	38.6
1881	139,233	72,038	58,389	269,662	4766	56.6
1886	165,050	132,529	90,708	388,289	5182	74.9
1891	180,026	198,569	158,926	537,521	5633	95.4
1896	189,584	279,518	212,628	681,732	6124	111.8
1901	236,506	340,772	269,933	847,212	6581	128.7
1906	329,521	508,700	291,563	1,129,784	6908	163.5
1907	356,233	589,745	330,000†	1,275,979	6975	182.9
1908	399,666	636,009	340,000†	1,375,675	7043	195.3
1909	410,744	687,138	311,000†	1,408,883	7112	198.1
1910	425,271	763,797	298,000†	1,487,069	7181	207.1
1911	436,498	821,819	340,669	1,598,987	7251	220.5
1912	436,492	797,487	492,858	1,726,839	7321	235.8
1913	462,019	811,397	733,931	2,007,348	7393	271.5

* The omnibus figures are incomplete. They relate only to the principal companies.

† The figures for these years are based on receipts, and are probably underestimated.

Riensch-Wurl Sewage Screens, Brooklyn

As noted on p. 1095 of the issue of June 3, construction work has been begun on the sewage-treatment plant of the 26th Ward, Brooklyn, N. Y. It is to be equipped with two 6,000,000-gal. Riensch-Wurl sewage screens. The specifications were so worded that one of several methods of treatment would be acceptable to the city. The specifications and plans were prepared on a competitive basis permitting the use of Imhoff tanks or sedimentation tanks with separate sludge-digestion and sludge-drying beds for either of the tank plants, and Riensch-Wurl fine screens. The exact wording of the specifications was as follows:

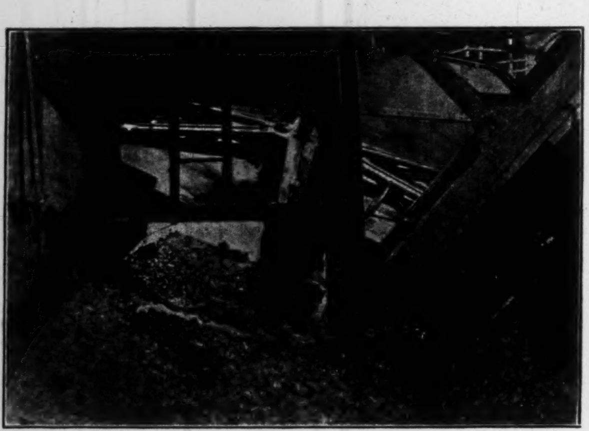


FIG. 1. SEWAGE-TREATMENT PLANT, DRESDEN, GERMANY

(View of a section of a Riensch-Wurl screen in service, showing screenings coming under the action of the brushes; also showing the construction of the screen seal)

> The contractor shall install complete and ready for operation a plant for the purpose of removing suspended solids from the ordinary dry-weather flow of sewage at the 26th Ward disposal plant, Borough of Brooklyn, in accordance with one of three methods and designs for removing suspended solids shown on the plans of the work. The contract gives him the option of installing one of the following three methods and the plant for operating same:
>
> Optional Project A.—Riensch-Wurl screens, with direct removal of screenings.
>
> Optional Project B.—Imhoff tanks with drying beds for sludge.
>
> Optional Project C.—Sedimentation tanks with separate sludge-digestion tanks and sludge-drying beds.
>
> Either of the plants mentioned will be equally satisfactory to the city if it secures the results in removing suspended solids from sewage hereinafter set forth as the general requirements to which the plant installed must conform.
>
> When operating under average ordinary dry-weather conditions the plant shall be of sufficient capacity to treat 12,000,000 gal. of sewage per day.

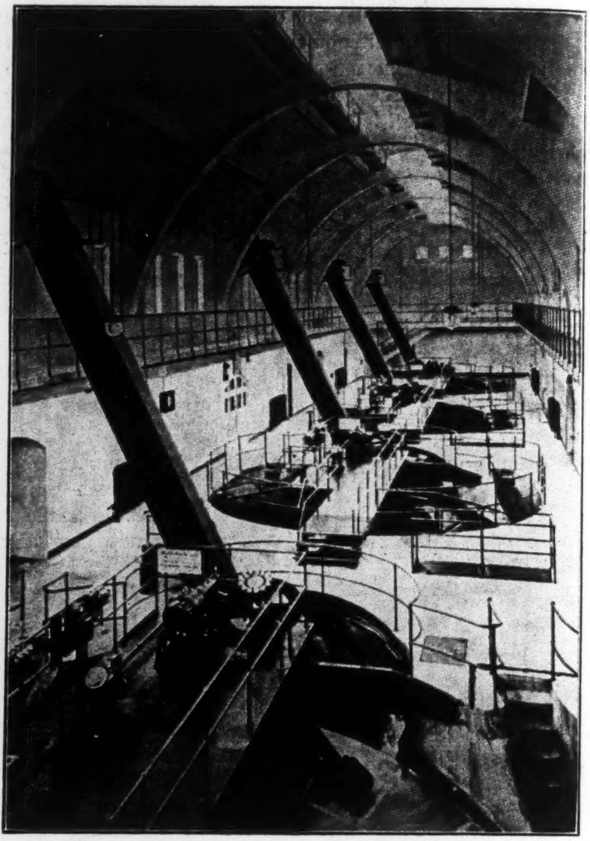


FIG. 2. SEWAGE-TREATMENT PLANT, DRESDEN, GERMANY

(Interior view of the screen house, showing general arrangement of the Riensch-Wurl screens (each 26 ft. 3 in. diameter). The two screens to be installed in Brooklyn are 14 ft. in diameter)

A number of bids were received. The contract was awarded to the lowest bidder, the North Eastern Construction Co., which proposed to use Riensch-Wurl fine screens to fulfill the requirements of the specifications. The work is now under construction and the plant will be in

PARTIAL LIST OF RIENSCH-WURL FOREIGN INSTALLATIONS

No.	City	State	Remarks
1	Graudenz	Prussia	Municipal Sewage Plant
2	Dirschau	Prussia	Municipal Sewage Plant
3	Dirschau	Prussia	Municipal Sewage Plant
4	Ostrowo	Prussia	Municipal Sewage Plant
5	Strasburg	Prussia	Municipal Sewage Plant
6	Culm	Prussia	Municipal Sewage Plant
7	Goerltz	Prussia	Municipal Sewage Plant
8	Wreschen	Prussia	Municipal Sewage Plant
9	Strehlen	Prussia	Municipal Sewage Plant
10	Eberswalde	Prussia	Municipal Sewage Plant
11	Ragnit	Prussia	Municipal Sewage Plant
12	Herford	Prussia	Municipal Sewage Plant
13	Lissa	Prussia	Municipal Sewage Plant
14	Cologne	Prussia	Municipal Sewage Plant
15	Stettin	Prussia	Municipal Sewage Plant
16	Neuwid	Prussia	Municipal Sewage Plant
17	Osterode	Prussia	Municipal Sewage Plant
18	Marienburg	Prussia	Municipal Sewage Plant
19	Dresden	Saxony	Test Plant
20	Dresden	Saxony	Municipal Sewage Plant
21	Dresden	Saxony	Municipal Sewage Plant
22	Dresden	Saxony	Municipal Sewage Plant
23	Dresden	Saxony	Municipal Sewage Plant
24	Dresden	Saxony	Private Sewage Plant
25	Reichenau	Saxony	C. Lindemann Private Sewage Plant
26	Zittau	Saxony	Power House
27	Mainz	Hessia	Test Plant
28	Mainz	Hessia	Municipal Sewage Plant
29	Lauterbach	Hessia	Municipal Sewage Plant
30	Karlsruhe	Baden	Municipal Sewage Plant
31	Weida	Thuring	Otto & Albrecht Dix Leather Works
32	Ohrdruf	Thuring	Municipal Sewage Plant
33	Diedenhofen	Germany	Municipal Sewage Plant
34	Bremen	Germany	Test Plant
35	Bremen	Germany	Municipal Sewage Plant
36	Bremen	Germany	Municipal Sewage Plant
37	Bremen	Germany	Municipal Sewage Plant
38	Bremen	Germany	Municipal Sewage Plant
39	Bremen	Germany	Municipal Sewage Plant
40	Bremen	Germany	Municipal Sewage Plant
41	Christiania	Norway	Test Plant
42	Christiania	Norway	Municipal Sewage Plant
43	Christiania	Norway	Municipal Sewage Plant
44	Christiania	Norway	Private Sewage Plant
45	Petrograd	Russia	Municipal Sewage Plant
46	Petrograd	Russia	Municipal Sewage Plant
47	Toulon	France	Municipal Sewage Plant
48	Petrograd	Russia	Peter the Great Hospital (Sewage)
49	Petrograd	Russia	Peter the Great Hospital (Sewage)
50	Astrachan	Russia	Municipal Sewage Plant
51	Memel	Prussia	Municipal Sewage Plant
52	Memel	Prussia	Municipal Sewage Plant
53	Greifswald	Prussia	Municipal Sewage Plant
54	Hamar	Norway	Municipal Sewage Plant

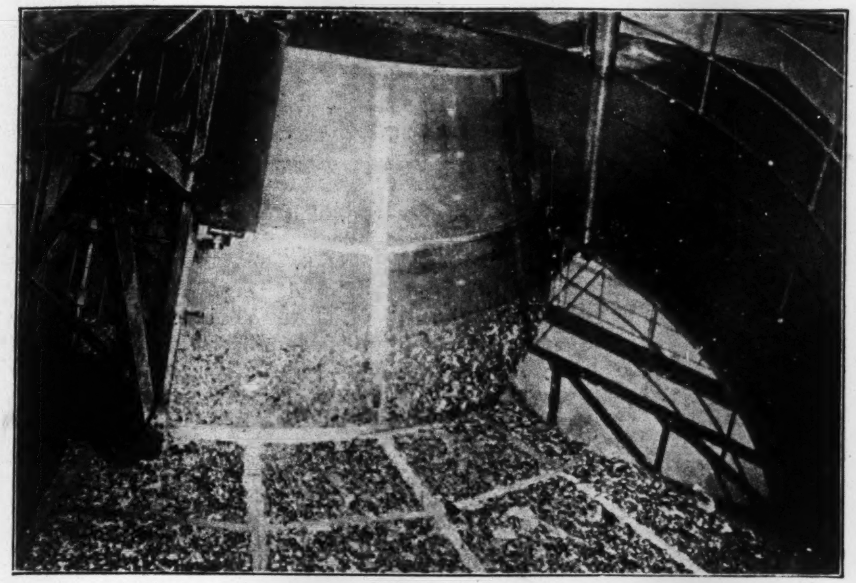


FIG. 3. SEWAGE-TREATMENT PLANT, DRESDEN, GERMANY

(View of a section of a Riensch-Wurl screen in service, showing the screen cone brushes and accumulation of screenings. The surface of sewage reflects the structural steel work. The clear portion of the screen cone is available for increased or storm water flow. One screen handles the entire normal flow at the station, of about 26½ million gal. per day)

operation this summer. The screens are furnished by the Sanitation Corporation, Philadelphia.

The accompanying views show the sewage treatment plant at Dresden, Saxony, in Germany, where there are several Riensch-Wurl screens in use. This is the most notable of the European installations.

⁂

A Large Gravel-Washing Plant

A sand-and-gravel washing plant, having the unusually large capacity of 100 carloads of washed material per 10-hr. day, has recently been put in operation by the Akron Gravel & Sand Co., of Akron, Ohio. The plant was designed and built by the Raymond W. Dull Co., of Chicago.

The material is excavated by steam shovels and brought to the plant by two trains, each consisting of a locomotive and two 30-yd. dump cars. One car of each train dumps from the bottom, and the other dumps from both sides, into a large concrete receiving hopper with capacity for about seven carloads. From the bottom of this hopper the material is delivered into an apron feeder 48 in. wide, operated by a variable-speed motor, geared directly to a worm-gear drive running in oil.

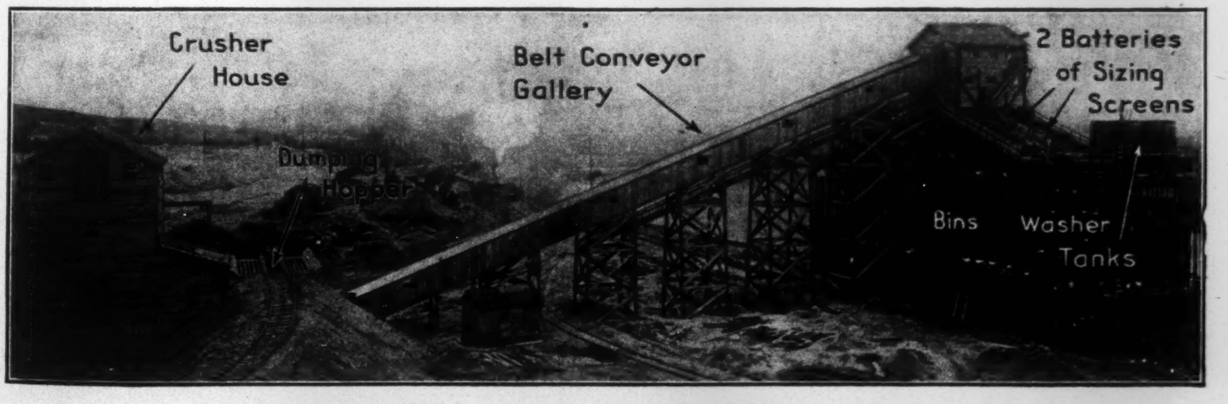
The feeder delivers the material into a 60-in. revolving screen that separates from the sand and gravel the stone which requires crushing. The stone is delivered to a large bucket elevator of special construction, the chains being built up of openhearth steel bars 4½x⅝ in. The chain pins and bushings are of chrome-nickel steel; the chain rollers are steel, and the sprocket wheels on the head and foot shafts have renewable manganese-steel teeth. The buckets are of the continuous type, 36-in. wide, reinforced by heavy steel lips.

This elevator discharges the stone onto a bar screen or grizzly, the larger stone going to a No. 6 Gates gyratory crusher and the remainder to a 48-in. Symons disk crusher. The product from each crusher is delivered to a 30-in. belt conveyor, which carries the crushed stone back to the 60-in. revolving screen for rescreening. The main conveyor from this screen is a 36-in. six-ply rubber belt, with ⅛-in. extra rubber cover on the carrying side, and is supported by troughing idlers.

The gravel washing equipment consists of 16 Dull inclined washing screens, mounted four in a row, with provision for two more rows, or 24 screens in all. There are eight 72-in. conical automatic sand separators or tanks. The screens and separators make five grades of material, which are delivered into seven bins.

⁂

Eight Skeletons were unearthed when the rock walls separating the workings of the Delaware & Hudson No. 1 colliery at Carbondale, Penn., from the old drift in which anthracite coal was first mined in this country were broken through on May 28. One of the skeletons was in a sitting position against the face of the coal measures and still wore miner's shoes. The mine records revealed that the bones were those of eight men who were entombed by a fall of rock Jan. 12, 1846.



GRAVEL-WASHING PLANT OF THE AKRON GRAVEL & SAND CO., AKRON, OHIO

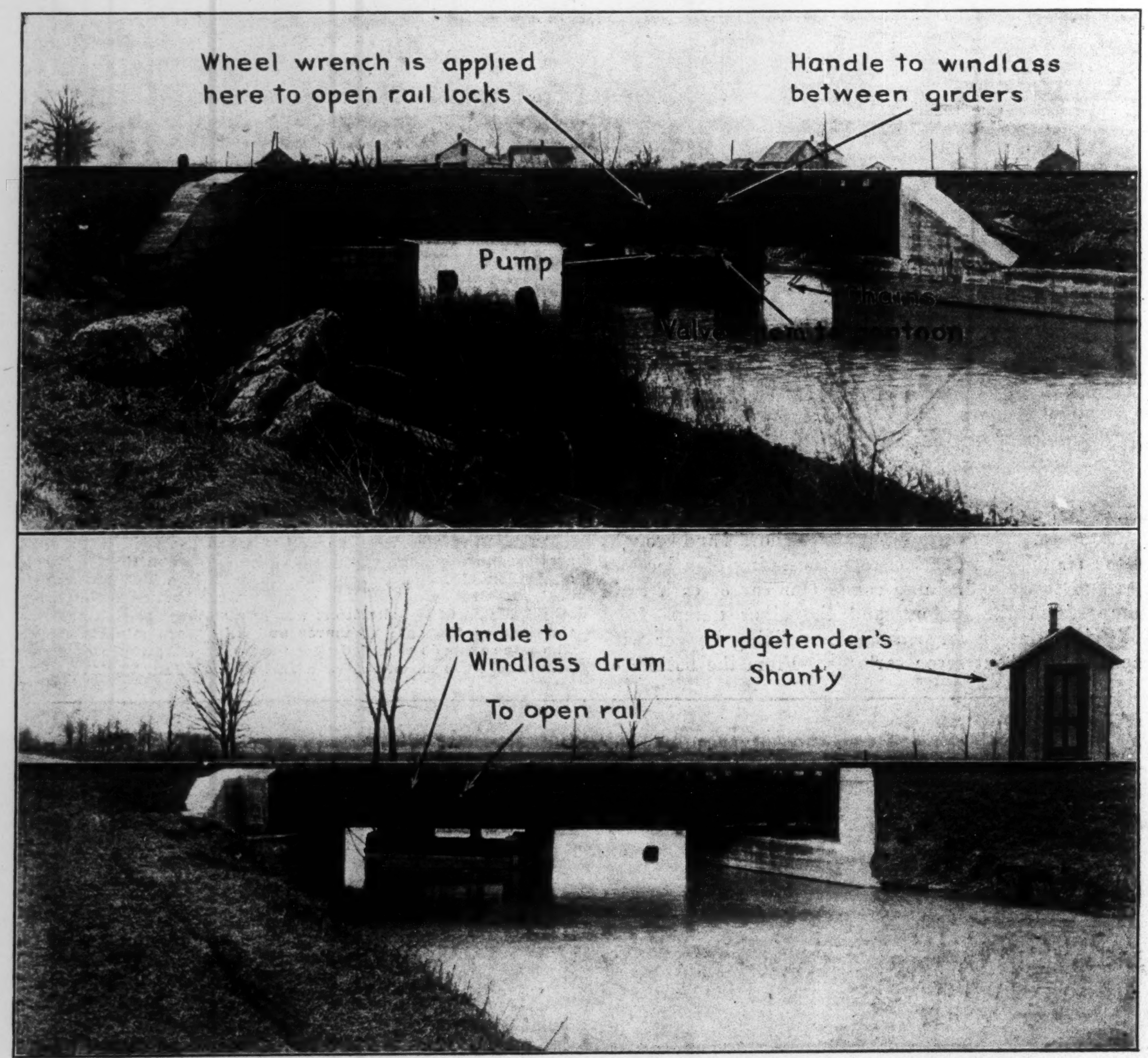
Field and Office

A Removable Fixed Bridge

Where the Nickel Plate railway crosses the Miami & Erie Canal, at Melrose, Ohio, a bridge was needed which would be, from the standpoint of the railway, a fixed span, but for canal traffic, a movable bridge. The view shows the structure put in. The canal is practically out of use; only repair and inspection boats have passed in recent years. Notice is given to the railway a few days before the boat is to come along, so that all may be made ready to open the bridge.

The structure is a pontoon swingbridge, but in normal position it is down on its end bearings, water being admitted to the pontoon. The procedure for opening the bridge is about as follows: The rail locks are opened; the lock-bars extending into recesses in the concrete back-walls are pulled clear, and wedges are released which hold the bridge $\frac{1}{16}$ in. above the circle rail at the fixed end. A gate-valve which admits water into the pontoon is then closed, and the pontoon is unwatered by means of a diaphragm pump (on the pontoon) until the girders are raised off at the movable end. A chain anchored on both banks passes over a windlass on the bridge, and by this windlass the bridge is now swung.

Opening and closing the bridge takes one man about half an hour, ordinarily.


Wheel wrench is applied here to open rail locks
Handle to windlass between girders
Pump
Chains
Valve stem to pontoon
Handle to Windlass drum
To open rail
Bridgetender's Shanty

"Fixed" Pontoon Draw Carrying Nickel Plate over Miami & Erie Canal

Railway traffic is protected by interlocking signals.

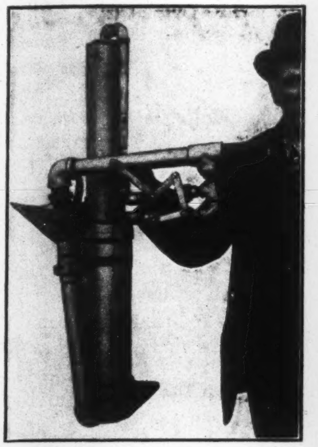
The bridge has been in place about 8 yr., and it has proved satisfactory to both railway and canal people, according to reports.

⁂

Compressed-Air Track-Surfacing Machine

In the maintenance of track a considerable amount of time and expense is expended on keeping the track in proper level, and it is not an easy matter to effect the smaller adjustments by ordinary tamping.

Several years ago a pneumatic surfacing machine was invented by the late E. L. Patterson, of Titusville, Penn., to avoid the disturbance of the bed of the tie by tamping. The machine had grooved wheels, to travel along the rail, and two vertical pipes—one carrying a hopper and the other connected to a compressor or a hand-blower. The pipes united at the bottom in a shoe having a thin flat horizontal nozzle. In using this machine the track was raised to the surface by jacks and the nozzle inserted under the ends of the ties in succession. With the air turned on, screened stone or gravel (not over ¾-in. size) was shoveled into the hopper and blown beneath the tie, filling all cavities and packing so solid as to support the track when the jacks were released. This machine was used on the New York, New Haven & Hartford and the Bessemer & Lake Erie roads, its work in the latter case being in connection with steel ties.



Machine for Surfacing Track by Compressed Air

A modification of this machine has been brought out recently by J. A. Royal, of Spruce Grove, Alta., and is shown in the accompanying view. It consists of two cylindrical chambers, the lower and larger one having a feed hopper at the top (shown at the left) and a discharge aperture at the bottom. Air hose from a compressor on a section motor car is coupled to the horizontal pipe at the right. The air is admitted at the top to drive down the ballast fed into the cylinder and at the bottom to blow out the ballast through the horizontal discharge opening. This opening can be fitted with nozzles of different size, to suit the ballast, and the machine can be used for lifts of ⅛ in. to 2 in. The weight is about 47 lb.

The inventor claims that surfacing can be done at the rate of 4 mi. per day with the following equipment and force: A motor car with air compressor and hose, eight surfacing machines (two working together on one tie), a foreman, eight machine men, four shovelers (each serving the two machines on a tie), one leveler, two jack men and two flagmen.

⁂

Blasting a Pit for a Dipper Dredge

By F. W. Wilson*

Two large ditches were to be dug recently in New Madrid County, Missouri. The contractor (The Hoosier Land & Investment Co.) owned two dipper dredges, but there was no basin in which to float a dredge in order to start the ditching. A pit was required 136x50x6 ft. deep. It was decided that this could be formed quickest by blasting. The hole was shot by a professional dynamiter.

Bore holes were put down, running the length of the proposed pit, in eleven parallel rows 3 ft. apart. The

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*E. I. du Pont de Nemours Powder Co., Wilmington, Del.

Large Pit to Receive Dipper Dredge, Blasted by One Shot holes in the middle row were each loaded with 2½ lb. of dynamite. The holes in the two rows on either side of the middle line were spaced 15 in. apart in the row and each loaded with 2 lb. of dynamite; the holes in the next two rows were loaded and spaced the same way. The spacing between holes in the next two rows was 2½ ft. and the loading 1½ lb. per hole; in the next two rows the holes were 2 ft. apart, and each was loaded with 1 lb. The holes in the two outside rows were spaced 18 in. apart and loaded with ½ lb. each. In all, 950 lb. of dynamite was used.

The result of the shot was a pit 43 ft. wide, 136 ft. long and 7 ft. deep in the center, with an average depth of 3½ ft., with the exception of one spot where a large cypress stump had stood and which caused the dirt to pile up. The blaster claims that he did not want to blast the pit in one shot, but the contractor wanted it done that way and so he acquiesced. The blaster's idea was to blast out two pits and then shoot out the division. By this method much less earth would have fallen back into the excavation.

The 600-Ft. Self-Supported Radio Towers at Darien*

By Ira W. Dye†

The United States Naval Radio Station at Darien, C. Z., is one of a chain of high-powered wireless-telegraph stations being installed by the United States Government under the cognizance of the Navy Department. The Darien station is located almost exactly half way between Colon and Panama and lies on the west side of the Panama R.R. and on the east bank of the Panama Canal. The Poulsen system of transmission is used.

The design of the three 600-ft. self-supporting structural-steel towers and the method of erecting them are the items in the construction work which are of primary interest to civil engineers. The towers are triangular in plan, the base being an equilateral triangle 150 ft. to the side. The columns are battered toward the center of the triangle so that at the 150-ft. level the side of the equilateral triangle becomes 75 ft.; at the 380-ft. level, 35 ft., and at the top, 10 ft. Fig. 6 shows that the framing is a system of horizontal struts at the panel points, the middle point of the horizontal strut in each face being joined to the end of the horizontal strut above by diagonal web members designed for alternate stresses. Each face of the tower may be considered as a cantilever truss anchored at its wider end (the base of the tower).

Structural Steel Members

The main columns of the lower part of the tower are built up of an I-beam, to the web of which are attached two angles and a web plate. The back of the I-beam is reinforced by a cover plate. The attenuation of the steel is as follows: Farther up the tower the cover plate is omitted; then the I-beam is reduced in section; the I-beam is changed to a channel; the flange angles and web plates are reduced in section; the channel is omitted; and in the last three panels at the top of the tower the web plate is omitted, leaving only two heavy angles back to back as a column section.

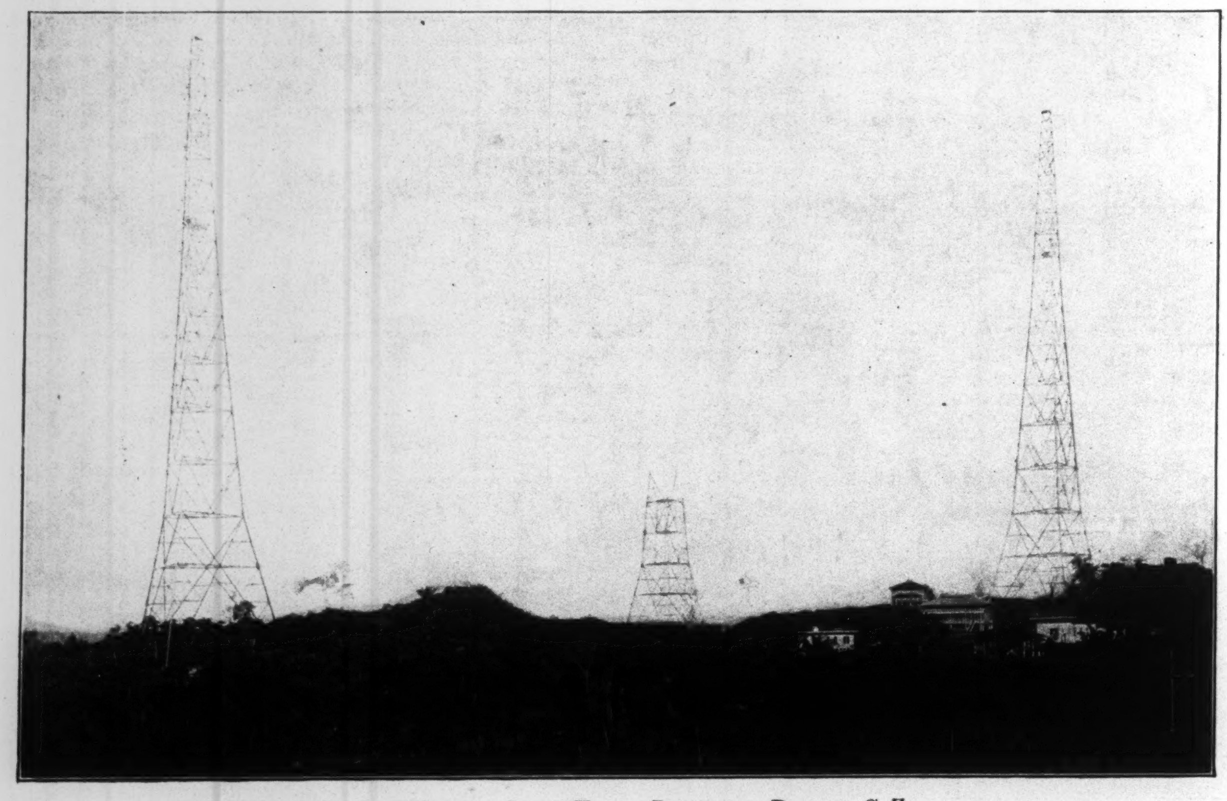

Fig. 1. View of Steel-Tower Layout at Darien, C. Z.

(Middle tower erected above 250-ft. level; other two towers completed)

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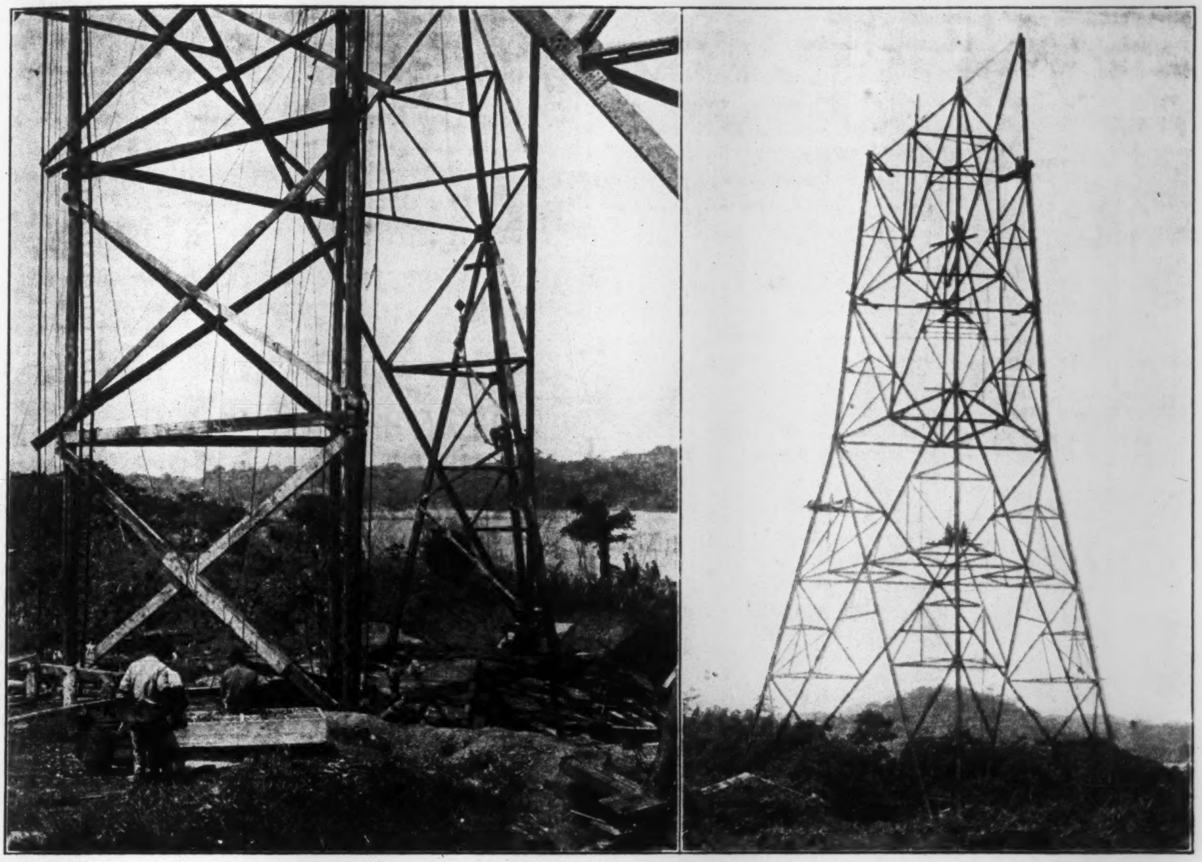
*The Darien radio station was designed, constructed and will be operated by an organization combining the forces of the Navy Department and the Panama Canal. The steelwork of the towers was furnished by the Pennsylvania Steel Co.

†Former Supervisor of Radio Stations, Panama Canal, C. Z.



FIGS. 2 AND 3. ERECTION SCENES AT ONE OF THE TOWERS
(Left—Outfit for erecting from ground to 200-ft. level. Right—Showing ginpole method of erection above 200-ft. level)

Web members are connected to the columns by gusset plates, bent where they leave the column so as to lie in the plane of the face of the tower. In the lower part of the tower these gussets are shop-riveted to the flanges of the I-beam. Above the 200-ft. level, however, the gusset plates are field-connected to the web plate of the column. The web members are for the most part star sections, built up of two angles set corner to corner and battened together with ⅜-in. batten plates spaced about 2 to 2½ ft.

The towers as erected show very little deflection, although all joints above the 150-ft. level were field-connected with bolts instead of being riveted.

TOWER-LEG INSULATORS

Provision was made in the design of the towers for their final support on a nest of large porcelain insulators (Fig. 5). The insulators had been tested in compression to 150 tons. For erection purposes, the towers were supported above the foundations* sufficiently to permit the subsequent installation of the insulators. These were placed on wood wedges, which were made with a very slight slope and were 14½ in. wide on the face. Two wedges were placed under each leg of the tower, each wedge consisting of an upper, lower and middle portion. The upper portion was protected against undue marring by the steel of the tower by being shod with a ½-in. steel plate.

The tower is not self-supporting until the 150-ft. level has been reached. At this level heavy horizontal struts transmit the horizontal reaction from each leg to the *other two*. It is, therefore, necessary to support the first 150 ft. of the tower in position, leg by leg, until all the members below this level have been erected.

The first erection outfit used was a triangular tower (Fig. 2) 30 ft. on a side, with vertical legs. It was set up in the center of the site. On the top of the wood tower, composed of fir piles, 8x16-in. yellow pine and 4x12-in. sway bracing, was laid a circular track of 70-lb. rails. A stiffleg derrick was mounted on the track, the mast standing over a leg of the wood tower. The two stifflegs extended toward the two other legs of the derrick tower and were anchored down by cables passed over them and under a pile of steel members on the ground. The 60-ft. boom was rigged with a three-part boom tackle and a two-part load tackle, the fall line passing down the boom, around a sheave at the bottom of the boom and down the post to the hoisting engine. The reach of the boom was ample to set the first column sections of the tower, which were, of course, the members farthest from the center.

The first two columns, with a total length of 60 ft., were bolted together on the ground, each with the lower end in such a position that when the upper end was picked up, the column tipped back into its proper place on the foundation. It was then anchored on the wedges by means of anchor bolts, so that it would stand until an A-frame consisting of two 60-ft. piles latticed together with 4x12-in. timbers could be raised and secured underneath the column. The wood members up to the level of the top of the second column section were then erected; another column section was added, its web members filled in, and the tower thus brought up to the 100-ft. level.

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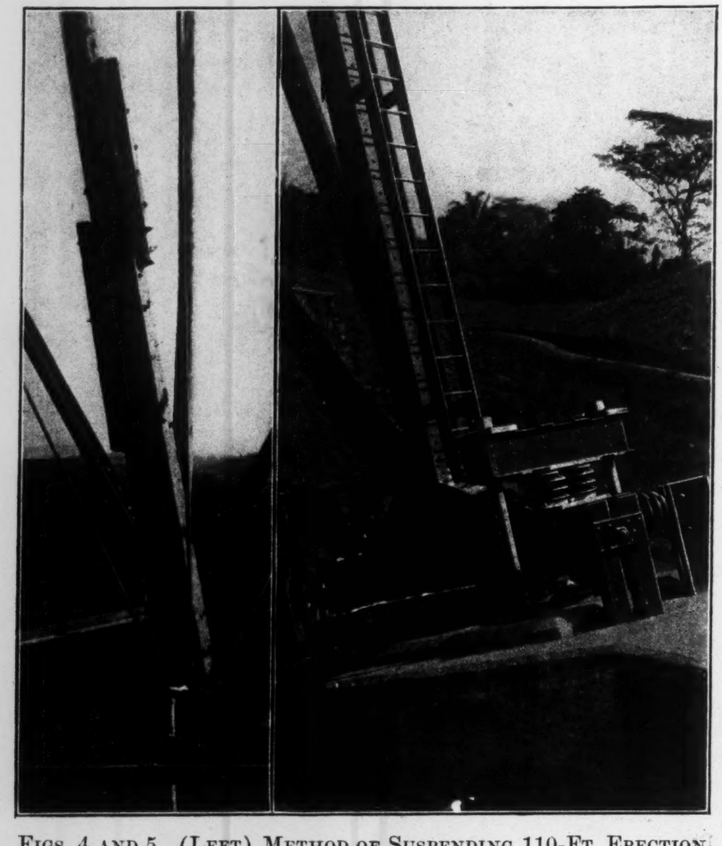
*The foundation work for the three towers of the Darien station was described in "Engineering News," June 17, 1915.

The derrick was then moved around on the circular track until it was in position to erect the second leg to the 100-ft. level. At this level there is a system of horizontal bracing which, while not sufficiently stiff to support the tower without assistance, does aid the temporary A-frame shores. The third leg of the tower was then erected to the same level.

In a similar manner the columns and web members were carried up to the 150-ft. level, leg by leg, and then to the 200-ft. level, which was the limit of the boom reach. The erection outfit was then taken down to be reërected at the next tower site. A new scheme of erection was started at the 200-ft. level.



FIGS. 4 AND 5. (LEFT) METHOD OF SUSPENDING 110-FT. ERECTION GINPOLE. (RIGHT) TOWER-LEG INSULATORS

This second scheme (Fig. 3) involved the use of a ginpole 110 ft. long. The ginpole was built up of a long, heavy pile of Oregon fir, spliced out at the lower end with two 8x16-in. and two 4x13-in. timbers, and at the upper end by two 6x14-in. timbers 35 ft. long. A 2-in. hole was bored into the lower end of the pole for about 2 ft. and a piece of 1½-in. pipe driven into the hole. A slot was then cut in the pole just above the end of the hole and in the slot an 8-in. sheave was fastened by a pin through a hole drilled from the outside, so that the circumference of the sheave was in line with the pipe. A second sheave was mounted in the slot so that it protruded just outside the surface of the pole. The fall line was run through the pipe around the inner sheave and back around the outer sheave, and was led up the pole to a top sheave pinned between the two 6x14-in. timbers. The line dropped from the top of the pole to the hook, and the other end led through snatchblocks to the drum of the hoisting engine.

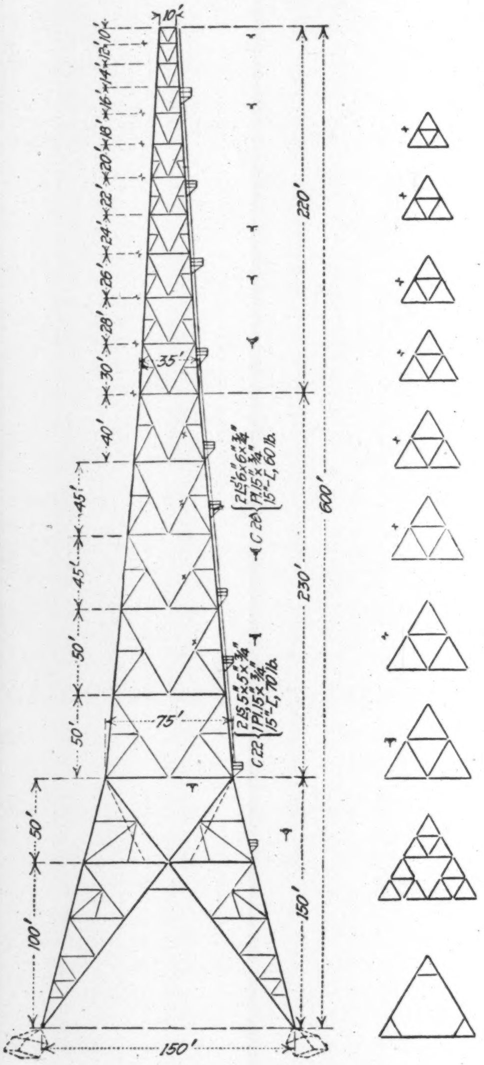
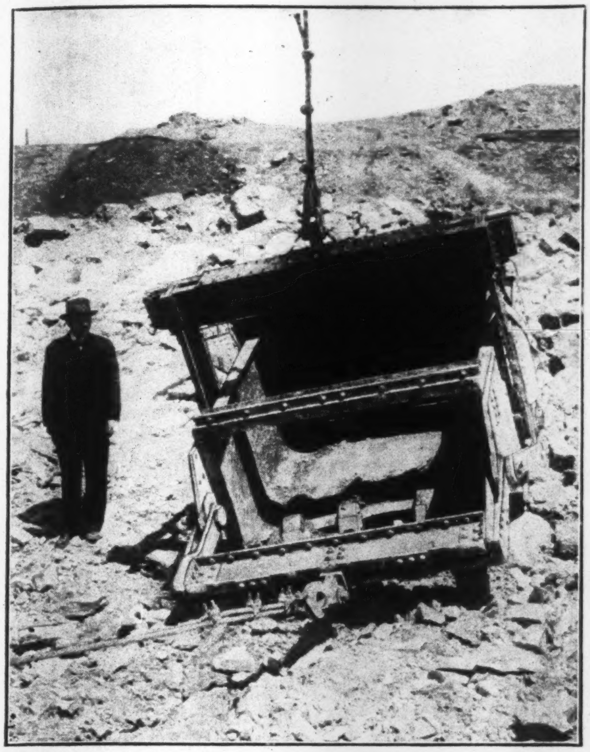

10'
10'
12'
14'
16'
18'
20'
22'
24'
26'
28'
30'
35'
40'
45'
45'
50'
50'
75'
50'
100'
150'
220'
230'
600'
150'
C 26 {2 L's 6"x6"x¾" Pl. 15"x¾" 15"-[, 60 lb.
C 22 {2 L's 5"x5"x¾" 1 Pl. 15"x¾" 15"-[, 70 lb.

FIG. 6. DESIGN OF THE DARIEN TOWERS

The pole rested on a three-cornered steel saddle (Fig. 4), drilled in the center to admit the 1½-in. pipe in the bottom of the ginpole. A hole was drilled at each corner of the plate for attaching cables. The top of the pole was guyed by two-part manila-rope tackle, so that the top of the pole could be moved to any position inside the tower by adjusting the length of the guys. The suspender cables were of such length that the bottom of the pole hung at about the 150-ft. level. Its top was, therefore, at about the 260-ft. level, allowing 10 ft. of drift to set the next panel columns, which were 50-ft. long. The ginpole thus formed the axis of a double triangular pyramid, the lower apex of which could not be moved unless



Large Dragline Excavator Bucket Designed by E. R. Shnable for Work on Chicago Drainage Canals

the length of the suspender cables was changed and the upper apex of which could be moved at will by adjusting the guys. Steel was hoisted through the center of the tower.

When the ginpole had finished erecting the panel above its point of support it was raised by means of a 50-ft. ginpole resting near one of the columns, on the steelwork already erected, and was resuspended from the top of the panel just finished. This operation was repeated until all steelwork up to and including one panel above the 380-ft. level had been erected. The large heavy ginpole was then taken down and replaced by a similar one 60 ft. long, which finished the erection.

The horizontal web members not being supported at their middle points until the panel immediately above them was erected made it necessary to shore up these horizontals with piles resting on the middle point of the panel below. These shores were left in until the tower had been erected to the 380-ft. level. To this level the horizontal struts were spliced in the middle; but above this point they were continuous from column to column and capable of supporting their own weight. The same set of shores was used in all three towers, as were also the same falsework, derrick and ginpole.

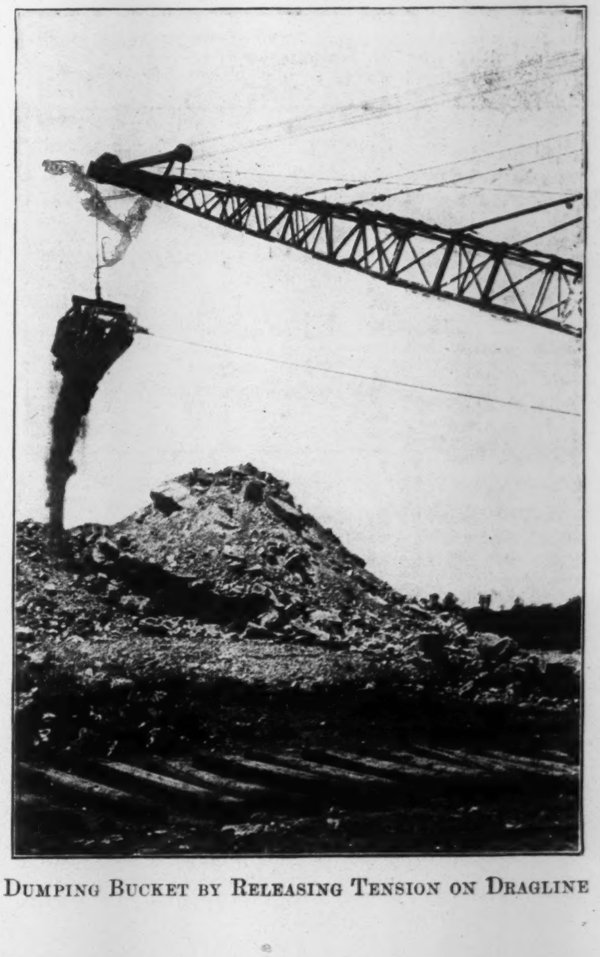
While the first tower was being erected from the 150- to the 380-ft. level, the second tower was being erected up to the 150-ft. level, and when the first tower was being erected above the 380-ft. level, the second tower was going up from the 150- to the 380-ft. elevation. The same schedule of progress was maintained on the second and third towers, so that when the top of tower No. 1 was being finished, work had just started on No. 3, while No. 2 had been erected above the 380-ft. level.

A Very Large Dragline Excavator

A dragline excavator of particularly large and rugged construction has been in use for the past five years on the construction of the Calumet-Sag and North Shore drainage canals at Chicago, Ill. The material excavated included a glacial conglomerate of sand, gravel and boulders cemented with clay and tightly packed, and below this a hardpan full of pieces and ledges of limestone. To be able to handle this material efficiently with a dragline excavator, E. R. Shnable, of Shnable & Quinn, contractors, designed and built the bucket shown in the accompanying illustrations.

It is a back-dumping bucket, and the tension on the dragline keeps the back gate closed. When the tension is released, the bucket, being suspended by the combination hoisting bail and back gate, tips and dumps by gravity. In the bucket's digging position the pulling or dragline bail is connected to the shell at points which are above the center of gravity of the shell. The pulling bail is also connected by links to the hoisting bail and back gate in such a way that the tension on the dragline forces the gate to close and remain so until the tension is released. The bucket is designed to have flexibility, and to prevent binding in any of the parts it has loose-fitting connections.

The operation of the excavator is entirely controlled by the two single-part lines, the dragline and the hoist line. When the bucket is filled, it is raised to dumping position at the end of the boom by pulling in on the hoist



Dumping Bucket by Releasing Tension on Dragline

line and at the same time keeping a tension on the dragline. After the load is dumped the shell resumes its position automatically. No tripping device is required.

Parts of the bucket subjected to the greatest wear are constructed of four separate removable parts, any of which may be quickly renewed. These are the front section of the shell, the manganese-steel cutting plate, the teeth and the manganese-steel teeth points. The teeth are bolted to the cutting plate and have removable points.

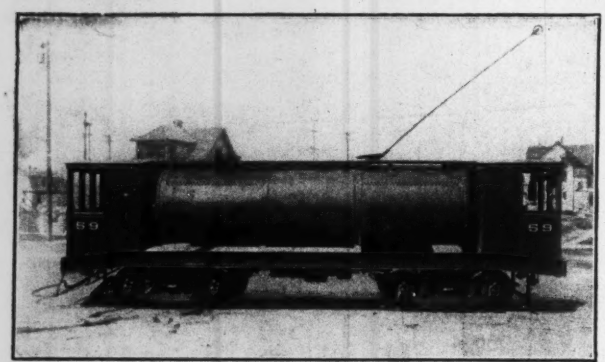
Owing to the way in which the dragline is attached it is possible to dig down a slope, although the dragline is pulling up. The same feature also makes it possible to cut off as thin a slice of earth as is desired by varying the pull on the hoist line. Both bails are short, which permits the bucket to be brought in quite close to the machine.

The patents on this bucket have recently been purchased by the Brown Hoisting Machinery Co., Cleveland, Ohio, and it has been placed on the market under the trade name of "Brownhoist Shnable" bucket.

NOTES

A Street-Railway Track Sprinkler of special design is shown in the accompanying illustration. It was designed by George L. Wilson, engineer of maintenance-of-way, and W. J. Smith, master mechanic, of the St. Paul City Ry. Co., and was built in the company's shops. The two spraying heads are just under the car sill at the rear (right); they are to be used for either water or a solution of calcium chloride. Under them is a spray pipe for oil.

In the rear cab, occupied by the sprinkler operator, are placed a Smith heater, an auxiliary air compressor and levers for controlling the discharge of the oil or water. The operator is provided with an air compressor for the oil spray independent of the air supply for braking purposes. The heater supplies hot water for a coil which runs through the tank, returning through the front cab, for keeping up the temperature of the oil or calcium chloride solution and for supplying heat to the cabs in cold weather. A steam coil is also provided, which is connected up in the yard to a steam plant, and the initial heat is supplied in this way for either the oil or calcium chloride solution. After the oil has been heated to the proper temperature or the calcium chloride fully dissolved, the necessary temperature is kept up on the tank while running by the Smith heater.



OIL AND WATER SPRINKLING CAR, ST. PAUL, MINN.

The car frame is of standard heavy construction, except that the end frames are bent down to give more headroom for the equipment in the cabs. The frame is mounted on two 2-motor trucks set 19 ft. c. to c. The car is intended to sprinkle a single track. The capacity of the tank is 4400 gal., which is sufficient to sprinkle a 19-ft. strip for 4 mi. In freezing weather a calcium chloride solution is used instead of water. The car is being used at present only on paved streets and has not yet been tried with road oil. The weight of the car is 52,100 lb.

Driving and Cutting Off Steel-Pipe Piles for the foundations of the new quarantine landing at Balboa, Canal Zone, Panama, is described in a recent issue of the "Canal Record." The cutting off of the tops of the piles to an even elevation was done with an oxyacetylene torch, which was able to cut some of the pipes, 14 in. in diameter and ⅜ in. thick, in 4 min. In driving the pipe it was necessary to fill them with concrete for about 2 ft. above the bottom of the end cap to weigh them to the sinking point. In order to give the piles the required batter, they were driven through a guide frame, built of timber and ballasted, which was sunk at the point of driving. After it was placed in approximate position movable guides were adjusted for the exact inclination. This frame, 24 ft. high by 20 ft. long and 12 ft. wide, was handled from place to place by a derrick barge which also operated a steam hammer to drive the piles. The pipe was afterward filled with reinforced concrete.

A Steam Shovel Worked Behind House Wreckers to clear ground and excavate for cellar and foundations of the new Mercantile Building to be erected on Broadway between 35th and 36th St., New York City. The revolving shovel shown in operation in the accompanying view was installed on May 24, as soon as a building at one corner of the site had been demolished. Since then the shovel has been worked as rapidly as the wreckers could tear down the other buildings.

FIVE
PROFIT SHARING
COUPONS

STEAM SHOVEL EXCAVATING BUILDING WALLS, NEW YORK

The shovel is digging to a depth of 15 ft. below street level, and the soil handled is loam, clay, boulders, broken rock and broken building-foundations. The new building, which will be eight stories in height, will be founded on rock which at some points is at a depth of 15 ft. Where the rock crops out above this level it is drilled and broken up for the shovel. The Thompson-Starrett Co. is the general contractor; F. H. Chapman Contracting Co., subcontractor. The block is well known to New Yorkers. One of the buildings razed was the old Herald Square Theater.

Third-Tracking the Elevated Railways in New York City under traffic has made necessary an immense amount of fieldwork. Snare & Triest, one of the two steel erectors on this work, gives us some interesting data on its sections (on 8th and 9th Aves. above 65th St. and on 3d Ave. above 147th St.). Work on these sections began about July 1, 1914, and involved the erection of 6500 tons of steel and the removal of 1500 tons of old steelwork. Before the end of April, of the present year 275,000 rivets had been driven by Snare & Triest, 260,000 holes had been drilled from the solid, 20,000 holes subdrilled and reamed, and 125,000 old rivets and bolts had been cut out. It is interesting to note that about 85% of the drilling and reaming was accomplished with electric drills. The motors of these drills are wound to stand a variable direct-current voltage of 550 to 650 volts. The "Duntley" drill, made by the Chicago Pneumatic Tool Co., was employed. In restricted quarters, air drills were used. Riveting was done with pneumatic guns. Steel for the 8th and 9th Ave. work was furnished by the Lewis F. Shoemaker Co.; steel for the 3d Ave. section was supplied by the McClintic-Marshall Co. It was stored at a yard in Greenville, N. J., and delivered by lighters, as required. Whenever material was needed, it was ordered out and lightered to the Pennsylvania R.R. dock at 128th St. and the Harlem River or to the Interborough Rapid Transit Co. dock at 125th St. and the Harlem River, from which points it was hauled to the site on trucks.

Editorials

Long Foundation Piles

Engineers in the Eastern and Middle States, where good timber has of late years become somewhat of a luxury, will read with amazement, touched with envy, of the long piles which are to be driven in the New Columbia River bridge, described on p. 1218 of this issue. Sticks 120 ft. long and straight and staunch enough to be driven as piles are only memories on the Atlantic Coast. That such sticks can be had on the Pacific to the number of nearly 3000 at a cost of only 12c. per lin.ft. is lively evidence of the abundance of our northwestern forests.

The long embedment of these piles is also novel, although not entirely new, as a similar detail was used in another Oregon bridge—the Coos Bay Bridge, described in ENGINEERING NEWS, Apr. 1, 1915, p. 609. Such a construction should undoubtedly add to the lateral stability of the pier and insure a uniform transmission of load, but will probably complicate somewhat the placing of the concrete, both above and below water. There is also the remote possibility that these many piles extending far up into the pier section may tend to cause planes of weakness through the concrete.

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Preventing Telephone Troubles Along Electric Railways

The service interference to telephone and telegraph communication once met with in districts where alternating-current railways operated has been noted at various times in ENGINEERING NEWS, as well as some of the complicated attempts to mitigate it. The degree of elimination secured along the Elkhorn grade of the Norfolk & Western Ry., as noted elsewhere in this issue, illustrates the simplicity of the most successful methods. To cure the troubles—not merely to remedy them—it was necessary only to place the substations judiciously and to discourage the current from leaving the rails.

In fundamental respects these are the same lines along which the New Haven road reached success after a long period of bother with elaborate compensating devices. On this line the very simple expedients were adopted of (1) doubling the feeder voltage, (2) making the supply circuit include only the contact wires and high-tension feeders, and (3) placing numerous single-coil transformers across this supply circuit and connecting their mid-voltage point to the rails. In this way the track and trolley became active conductors only between the two transformers adjacent to a train. The traction currents were made to flow to the train from opposite directions, producing a second diminution of effect on parallel wires. The track current was restrained, more than before, from leaving the rails and cutting cross lots, so that the currents in trolley and track held parallel paths and tended better to neutralize their inductive disturbances. The main supply circuit, by losing its earth return, acted similarly.

The same recourse to fundamental measures of prevention may be seen in the electric-traction installation of the Pennsylvania R.R. out of Philadelphia, though of course the details are varied.

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Value of Permanence in Public Service

In our issue of June 3 we referred to the important public service rendered to New York City by its Bureau of Franchises. It is of interest to put on record that one of the reasons why this bureau has been able to do such thorough and effective work in the protection of the city's interests is that its staff is made up of men of long experience in the city's service. Of the 17 employees in the bureau, 12 have been connected with it since its establishment in 1905, and their total time in the city's service ranges from 10 to 28 years.

A still more notable instance of long continuance in the city service is the very unusual record of David Brower, who has just retired from the Brooklyn Sewer Department after serving as an engineer in that department for 54 years.

So much has been published concerning the corruption of municipal government in the United States, and particularly in New York City, that many people still have the idea that most city employees hold their positions by virtue of political pull. It is well worth while, therefore, to put on record the above showing as an illustration of the fact that, notwithstanding the many changes in political control that have taken place in New York City in the past quarter century, a large proportion of those in the city's service continue on year after year without regard to political upheavals.

We are well aware that many contrary instances can be cited where engineers and others who have rendered valuable service to cities have been displaced for political reasons; on the whole, however, there has been a great improvement in this respect in our municipal governments during the past quarter century.

The enactment of civil-service laws is partly responsible for this, without doubt. Even more potent has been the realization, however, by every man who attains to any important position in governmental affairs that in order to get the public's work done in any sort of satisfactory shape men who know by experience what the work is and how it should be carried on must be retained.

The public probably misunderstands the position of the engineer when he urges that those of the profession engaged in public work should be made secure in their positions. It ought to be realized that the engineer is not only arguing for the benefit of those of his profession who are engaged in public service, but that he is also arguing for the only system that can produce the efficiency and economy in that service which every good citizen desires. What manufacturing firm could succeed in the struggle with its competitors if every time a general election was held all those holding responsible positions with the firm, in which they were able to do constructive work in developing its business, were likely to be displaced on a moment's notice by a set of men wholly inexperienced in the work?

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The Logical Results of the Submarine Torpedo Boat

In our issue of May 13, following the sinking of the "Lusitania," we discussed the results that were likely to follow the rapid development of the submarine torpedo boat as a weapon of warfare. In this issue is printed a statement setting forth the present status of the submarine boat, which has been prepared for ENGINEERING NEWS by Naval Constructor Howard of the Washington Navy Yard, who is in direct charge of the work on the Government's new submarines.

The development of the submarine boat which has taken place within the past four or five years has been extremely rapid. The efficient and reliable operation of such a boat, like that of a motor boat or an automobile, depends upon the development and perfection of a great number of special details of its equipment. Everyone knows what a vastly different machine the automobile or motor boat of 1915 is from the automobile or motor boat of 1910. Some such development has taken place in the submarine.

Notwithstanding the development, there was, prior to the war, no recognition of the enormous potency of this new engine of destruction, save for some such isolated prophecy as that of Admiral Scott of the British Navy, who a little more than a year ago declared that the submarine boat had already made the dreadnought battleship obsolete. The naval experts of Great Britain promptly branded such an idea as absurd; and as Great Britain sets the fashion for the world in all naval matters, no other nation's naval authorities have as yet ventured to recognize the logical results of the submarine boat. Not only this, but as a result of the British military censorship since the war began, and an entirely natural disinclination on the part of the British authorities and press to recognize facts which militate against them, there has not been even a full recognition of the part that the submarine has played in the present war.

This is natural enough on the part of Great Britain; but the United States needs to know and to understand the facts. There is, for example, a demand by the Navy League that our Government borrow half a billion dollars at once to spend on national defense, chiefly, it is understood, on additions to the navy. There is little doubt that large expenditures for national defense will be made as soon as Congress meets. But the question is, On what shall the money be expended? It would be as absurd to decide on our military and naval plans without regard to the epoch-making revolution in methods of warfare which the European war has made as it would have been to buy muzzle-loading shotguns for our infantry at the close of our Civil War.

Notwithstanding all the limitations of the censorship, it is evident that the submarine torpedo boat has been by far the most important factor in connection with the naval operations of the war. And the chief accomplishment of the submarine fleet is not its sinking of the battleships and cruisers and other naval vessels, nor even the destruction it has wrought on merchant vessels. The great achievement of the submarines has been the shutting up of the British and German fleets in home harbors, merely because of the potential danger from submarine attack. This is not cowardice on the part of either combatant, as newspaper writers thoughtlessly claim. It is correct naval strategy. It should be understood that the German fleet is kept inside its own safe anchorages not alone because of the superiority in weight of gunfire of the British fleet, but also because the British submarines are as serious a danger to the German battleships and cruisers as the German submarines are to the British vessels.

The mere fact that the few submarines which each nation possesses constitute so great a peril to the main vessels of both navies as to keep them idle during the greatest war in history is the biggest feat which the submarine has accomplished.

Of course, it is understood that the lighter naval vessels—torpedo boats, destroyers and cruisers—have been more or less active, because their loss might be hazarded; and, as is well known, severe losses have occurred. Again and again it has been graphically proved how helpless are the larger fighting vessels in the presence of their concealed foe. One recalls the sinking of the three British cruisers in the North Sea and the resulting order that a vessel must seek its own safety if a companion vessel is torpedoed, leaving the drowning men to their fate. Other recent examples are the sinking of a British cruiser in the Adriatic at a time when she is said to have been protected by a convoy of half a dozen torpedo boats, and the sinking of a British destroyer and two British torpedo boats in the North Sea.

At the Dardanelles, such reports as have been published indicate that the achievements of the submarines on both sides have been the largest factor in the operations. The losses of the allied fleets have been so serious that, according to recent reports, the large vessels have been compelled to change their position and leave the allied troops unsupported.

There is, however, a prevalent idea, which finds support even in naval circles, that the destroyer type of vessel can make an effective defense against the submarine. It is easy to see why this idea should be given currency, for it would not be good tactics to officially admit that there is no real defense against submarine attack. Not only this, but the navy in all countries is a most conservative body. It will be a long and slow task to convince the rank and file of naval officers that the great battleships and cruisers in which they have taken such pride are as surely rendered obsolete by the submarine torpedo boat as were the grand old sailing frigates made obsolete when the battle between the "Merrimac" and the "Monitor" took place.

What is the foundation for the idea that the destroyer can put up an effective defense against submarine attack? Just this—that the destroyer, because of its superior speed and maneuvering qualities, *can elude the submarine* better than a larger vessel. It must be understood that the only safety for a vessel against the submarine's torpedo is to keep moving and changing its course. So long as the submarine boat remains submerged, a destroyer or any other vessel can do nothing to attack it. When the submarine thrusts its periscope above the surface of the sea to get its bearings, if some lookout on the destroyer is lucky enough to catch sight of the little tube, a quick machine-gun volley may smash the periscope and blind the submarine. But a piece of iron pipe thrust a few feet above the surface of the waves is a very small object to search for over all the area within the radius of a mile or two from the ship. The chances are greatly in favor of the submarine, that it will obtain its bearings and submerge again before its periscope is discovered.

It should be added that the destroyer has one further chance. By a sharp lookout it may discover the wake of the torpedo discharged by the submarine before it reaches its mark, and it is said that a machine-gun volley directed just ahead of the torpedo will explode the charge and thus make the torpedo harmless. In smooth water and clear weather the course of a torpedo may be traced, and by quick action a machine gunfire may be brought to bear on it before it reaches its mark. But the feat of thus discovering and "winging" a torpedo during the minute or two that elapses from the time it is discharged till it reaches its mark is not a thing which can be counted on.

It is said, however, that a dozen or more German submarines have been captured or sunk by British vessels. No details have been made public as to the method by which the captures have been effected, but it may safely be assumed that the captures were made when the boat was on the surface, and some of them have probably been due to some derangement of the submarine's machinery preventing it from taking refuge by diving when danger threatened. It is understood, of course, that before the submarine submerges it is well-nigh defenseless. Its safety lies in the fact that, lying so low in the water and discharging no smoke, the submarine is pretty sure to discover an enemy before it is itself discovered. It can then submerge and seek to torpedo the other vessel; but if by any mischance it is unable to dive, it is liable to capture, since its speed is not enough for it to escape if pursued by a naval vessel.

The time required to prepare a submarine for submergence may vary all the way from 2 to 20 minutes. Upon this more than anything else, probably, depends the liability of the submarine to capture. A fast destroyer may travel a mile in two minutes. Should a submarine discover a destroyer approaching her, therefore, the submarine will have to dive very promptly or the approaching vessel will discover her and open fire.

Briefly stated, therefore, the submarine is a vessel which is defenseless when on the surface, but which when submerged cannot be fought by any means now known. The torpedoes which it discharges are fatal to any form of vessel ever designed, or which is likely to be designed. The latest type of American dreadnought battleship, the "Arizona," launched at the New York Navy Yard June 19, represents a total investment of about $16,000,000. In contrast the United States submarine torpedo boats now building cost $540,000 apiece, so that a fleet of 30 such boats could be built for the cost of one battleship.

It deserves emphasis that the submarine boat is a weapon for defense and not for offense. No nation can now go overseas and attack another nation successfully provided the other nation possesses a fleet of submarine boats and men competent to operate them. And it can have such a fleet at such a small cost compared with the enormous outlay required for modern cruisers and battleships that all the smaller nations of the world are sure rapidly to provide themselves with such protection.

In the present war, as we have seen, the submarine has been the controlling factor. Its development, however, is still going on. Already a German submarine has made the voyage through the North Sea, the Channel, the Bay of Biscay and the Mediterranean, a distance of over 3000 mi., requiring 40 days' time, and sunk three battleships after its arrival. The United States is soon to receive bids for two very large sea-going submarines which will have, it is said, an effective cruising radius of from 5000 to 10,000 mi.

It is yet to be proved, however, that such large boats, except for use in distant operations, have any advantage over the smaller vessels. It is said that some of the most effective work by German submarines has been done by vessels of only about 240 tons' displacement. Even smaller vessels may again come into use, such as were built in the early days of submarine development. In submarine attack numbers are the important thing. No matter how large a submarine is, it can do no more than fire a torpedo, and the amount expended on one submarine of the large sea-going type would build three of the smaller type. We may even see submarines built so small that they can be carried on board a large vessel and put overboard in case of discovery of an enemy.

There seems no escape from the conclusion that the submarine torpedo boat has rendered obsolete and practically worthless all existing types of naval vessels—battleships, cruisers and destroyers. They are unable to offer any effective defense to their underwater foe, whose missile directed against them is far more certain to effect complete destruction than the biggest broadside of the most heavily armed vessel afloat fired at point-blank range.

If there seems to be any reason to doubt this, let it be seriously asked what the big battleships and cruisers are good for. Their impotence successfully to attack shore fortifications, long an axiom of naval strategy, has been again demonstrated by the operations at the Dardanelles. The proper objective of the fleet is well known to be the fleet of the enemy. But why build a fleet of huge vessels to combat the enemy's vessels if they can be more effectively and certainly destroyed by submarine attack?

So much for the logic of the submarine as a weapon of national defense against naval vessels. Can the civilized world afford to permit its use against merchant vessels of the enemy and even against neutral vessels?

To give a fair answer to this question, we may best ignore the conditions of the moment, with all their inevitable accompaniments of international prejudice. Imagine that a few years hence some insignificant nation—let us say in Africa or in South America—provided, however, with a large fleet of submarine boats, should declare war against some powerful European nation—for example, Germany herself, possessing, let us suppose, a large merchant marine and carrying on a large foreign trade. **It is evident that Germany would be powerless to attack her small antagonist, for it would be suicide to send either naval vessels or transports loaded with troops across the seas to be sunk by the enemy's submarines. It is easily imaginable, however, that the small nation might see an easy road to prosperity by emulating the example** of the famous Barbary pirates of the eighteenth century. We can imagine such a nation waging with submarines a warfare against every German merchant vessel, and declaring that every neutral vessel carrying goods either to or from Germany should be subject to capture and confiscation, which it could escape only by payment of a heavy ransom.

Suppose the great League of Peace, made up of the great nations of the world, were organized and in operation; the depredations of such an outlaw nation could not be stopped even by the combined forces of all the powers, by any operations at sea; only by attack on land.

This is only a brief suggestion as to why, in the interest of the world's welfare, no precedent should be established legalizing submarine attacks on merchant vessels. Should this be done, the submarine with its torpedo might easily become a veritable Frankenstein—potent to destroy the civilization which had produced it.

Letters to the Editor

River Terminals at Evansville, Ind.

Sir—In Engineering News, June 3, 1915, we note an article on Ohio and Mississippi River terminals, which states that terminals at Evansville are under consideration. Seven or eight years ago, in conjunction with the Evansville Sand & Gravel Co., we started the construction of a private river-and-rail terminal at Evansville. We now have a plant with derrick hoists, railway switches and warehouses, which we believe to be the best on the river, and which we keep busy for our own use. We transfer sand, gravel, steel, coal, lumber, groceries, furniture, etc., and have lifted a small gasoline cruiser out of the river to repair the propellers. Furthermore, we use a part of the wharf for the construction of river vessels. So we feel the terminals at Evansville are not merely "under consideration."

The Ohio River Contract Co.,
Leslie P. Eichel, Secretary.

Evansville, Ind., June 5, 1915.

[Our inquiry and the article mentioned above related particularly to public or municipal terminal facilities on the Ohio and Mississippi rivers, but we are pleased to make note of the above-cited private facilities at Evansville.—Editor.]

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The Project for a Reserve Corps of Engineers

Sir—A few years ago a committee headed by the late Alfred Noble and made up of prominent members of the American Society of Civil Engineers journeyed to Washington to ask for recognition and promotion for deserving civilian engineers employed upon the works in charge of the Corps of Engineers of the United States Army. As is well known, this committee failed to accomplish its purpose principally on account of strong opposition from the military engineers, but partly also because the members of the committee were insufficiently informed on their subject.

In the last few weeks another committee, also from the American Society of Civil Engineers, has been in Washington to discuss with the authorities the formation of a Reserve Corps of Engineers to supplement the Corps of Engineers of the regular army in case of war or other emergency.

A solution of the two problems studied by these committees would be found in the formation through proper legislation of a Reserve Corps of Engineers comprising the best material among the civilian engineers.

While the civilian engineers are not soldiers, they carry on the same work as the officers of the Corps of Engineers. They are educated technical men, and it would not be difficult to convert them into a military body by a moderate amount of training and instruction.

By organizing the civilians in a separate and distinct corps, much of the opposition raised by the military engineers would be avoided. The army engineer officers are not particularly opposed to the civilian engineers, but are unwilling to admit to their own corps any but graduates of West Point.

X. Y.

June 14, 1915.

⁂

Engineering Competitions in a Technical School

Sir—The editorial on engineering competitions in Engineering News, June 3, 1915, was very well taken, and the reasons why the use of competitions in the engineering profession is difficult are especially cogent.

In line with this it may be interesting to note that the Engineers' Society of Western Pennsylvania, in conjunction with several technical schools, some time ago realized the value of competitive work in the field of engineering and that more practical work should be injected into the technical courses of the schools. With these two points in view, the society formed a committee on engineering education, whose duty it is to obtain problems made by practical engineers out of their daily work.

These problems are then submitted to the students as part of their regular course by the respective schools and the solutions are turned in to the committee. Specially selected judges decide the contest.

This has now been done for three consecutive years. So far the plan has met with a great deal of favor by the school authorities and students, and many more schools have used the problems each year.

The branches in which competitive problems are being prepared are civil, mechanical, electrical, metallurgical and sanitary. It is rather early to judge the final outcome of such a movement, but from the results so far obtained it appears probable that a great deal of good will result from it, on account of getting real competition in engineering work and real and practical problems in the school courses.

A. Stucki,
President, Engineers' Society of Western Pennsylvania.
Pittsburgh, Penn., June 7, 1915.

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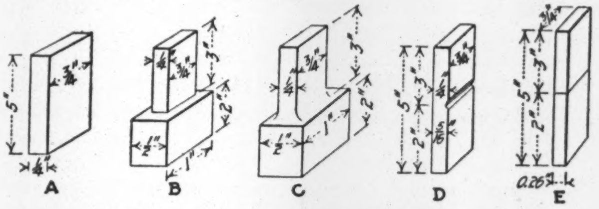
Progressive Fractures from Alternate Bending

Sir—The writer has been very much interested in the report of the broken axle on the Baltimore & Ohio locomotive tender and in your comments and that of your correspondents on Mar. 11 and Apr. 29.

Some time ago I had occasion to investigate the effects of nicks and changes of section in material, and the accompanying sketch shows the five sections that were tested. These pieces were clamped in a vise for a distance of 2 in., 3 in. being above the top of the vise and the uppermost portion being held by a lever which was pulled by hand from side to side. These pieces were subjected to alternate bendings 60 deg. on each side of the perpendicular, one alternation being one bend through 60 deg. and back to perpendicular. Twelve pieces of each size were tested, the material being ordinary steel exactly the same in each case.



Test-Pieces for Alternate Bending

The average results were as follows: Test-piece *A* gave 6.3 alternations. Test-piece *B* gave 3.1 alternations. Test-piece *C* gave 3.1 alternations; but test-piece *D*, with a 60-deg. V-notch $\frac{1}{16}$ in. deep, gave only 22½-deg. bend, bending away from the nick, and 60-deg. plus 40-deg. bend in bending first toward the nick. Test-piece *E*, with a very slight diamond scratch, averaged five alternations.

The immediate conclusions from these results are, of course, what have been long known among engineers—that changes of section and notches or nicks are exceedingly harmful; though why test-pieces *C* and *B* should fail so rapidly is very difficult to understand.

The writer believes, moreover, that if the test-piece *E* had been subjected to a large number of smaller alternations it would have broken down very quickly, as the effects of a diamond scratch are almost as noticeable in steel as in glass. In a high-grade specially hardened alloy steel they are of particular effect.

This progressive fracture is one which causes considerable trouble. From the mere fact that it goes on quite often for an exceedingly long time, and until a large percentage of the total area has become fractured, before complete separation takes place is evidence that the fiber stress must be reasonably low.

The writer has found in his experience that by increasing the size of the section and by paying special attention to the design and material used the tendency to produce progressive fractures can be very considerably reduced or largely eliminated.

John Younger,
Chief Engineer, Truck Department,
Pierce-Arrow Motor Car Co.
Buffalo, N. Y., May 13, 1915.

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More About the Use of Vegetable Matter in Asphalt Pavements

Sir—In Engineering News, May 27, 1915, p. 1046, I note a short article on a "fiber" asphalt pavement laid in Charleston, W. Va., in connection with which my name has been mentioned.

I have nothing whatever to do with what is known as the "fiber" asphalt pavement. The pavement that I invented is purely and simply an improvement over the various classes of bituminous pavements. The finely powdered vegetable matter is practically the only addition to the aggregates used in my invention. This vegetable matter is added for the sole reason of absolutely sealing the voids in the mineral aggregate and acting as a second binder in order to hold the pavement firm on its foundation, doing away with cracking of the surface and allowing the pavement to have a greater amount of expansion and contraction without the surface cracking.

I now have two samples of this pavement, one of the sheet-asphalt type laid with an ordinary Florida sand, using about 30% bulk of sawdust in the mixture. This sample is now 16 months old.

The following extract of a letter from H. M. Sinnott, a representative of the Barber Asphalt Paving Co., who made a personal inspection of this pavement on May 27, is of interest:

> I wish to advise you that on May 27 I personally inspected the piece of pavement laid by you on the Cocoanut Grove Road near the City of Miami, Dade County, Fla.
>
> This is the piece of pavement that was laid by you as an experiment in February, 1914, using Bermudez asphalt, and, as you advised me, from 30 to 35% of sawdust in the mixture.
>
> This pavement is apparently in as perfect condition as it was the first time I inspected it, which was a few days after its completion. This pavement presents as good an appearance as any piece of pavement of the sheet-asphalt type that I have ever seen.

The other sample is of an asphaltic-concrete type using a crusher run of stone with the addition of about 35 to 40% by bulk of sawdust. This sample was laid at the Fourth Ave. and Jackson St. intersection in New Decatur, Ala., during July, 1914, and is in perfect condition.

The use of vegetable matter in these various mixtures also appears to make a noiseless pavement. We do not claim that the vegetable matter in the wearing surface is for the purpose of increasing the durability of the pavement, but that it is simply used as a void sealer and a binder. As it is in its own state a compressible matter, the use of sawdust will do away with the necessary grading of sands, such as are commonly used in a sheet-asphalt type of pavement, and will also do away with the grading of stone in an asphaltic-concrete type of pavement.

B. R. Reno,
General Superintendent,
Southern Asphalt & Construction Co.
Birmingham, Ala., June 4, 1915.

Electric Traction on the Norfolk & Western Railway

SYNOPSIS—This article, supplementing one in ENGINEERING NEWS, *June 17, describes the overhead contact lines by which 11,000-volt single-phase current is supplied to single-phase-three-phase locomotives. The power-generating and switching system is briefly taken up and some interesting minor points are noted—like the suppression of inductive disturbances in telephone and telegraph lines, the absorption of regenerated energy from braking trains, the arrangements for maintenance, etc.*

The use of 11,000-volt single-phase power for the electrified Elkhorn grade of the Norfolk & Western Ry. in West Virginia involves supplying current to the locomotives by an elevated contact wire (with the track serving as a return circuit). No supplementary feeders are employed, the power distribution from substations being entirely by the contact system (and track).

The primary object of the engineers in designing the overhead lines was to hold a No. 000 copper-alloy trolley wire at a uniform height of 24 ft. above the rails and in a location not varying horizontally more than 12 in. from the track center (corrected for superelevation effects). The wire over one track is isolated from that over another. Reliability in service and low cost of maintenance were especially sought.

The contact wire is supported by a single catenary cable, with an auxiliary messenger wire close above the trolley and parallel to it. The catenary is hung from guyed light steel cross-bridges, except in yard spans, where a cross-catenary cable is employed.

INSULATORS

A prominent feature of the design is the use of two or more insulators in series between all live parts and ground. This is possible with suspension-type disk insulators. A string of three disks is used throughout over the main line tracks. Each disk is good for 11,000 volts and has an ultimate mechanical strength of 12,000 lb. There has not been a single failure of an insulator string.

CATENARY BRIDGES

The bridges supporting the catenary on the main tracks are made of tubular steel poles (sections of various lengths, sizes and weights being swedged together) and an H-section cross-beam. A change in size at the height of the cross-beams makes a shoulder on which sits a heavy steel casting for holding the cross-beam and for attaching the guy rods. The beams are partly supported also by side braces. The poles are grouted into rein-

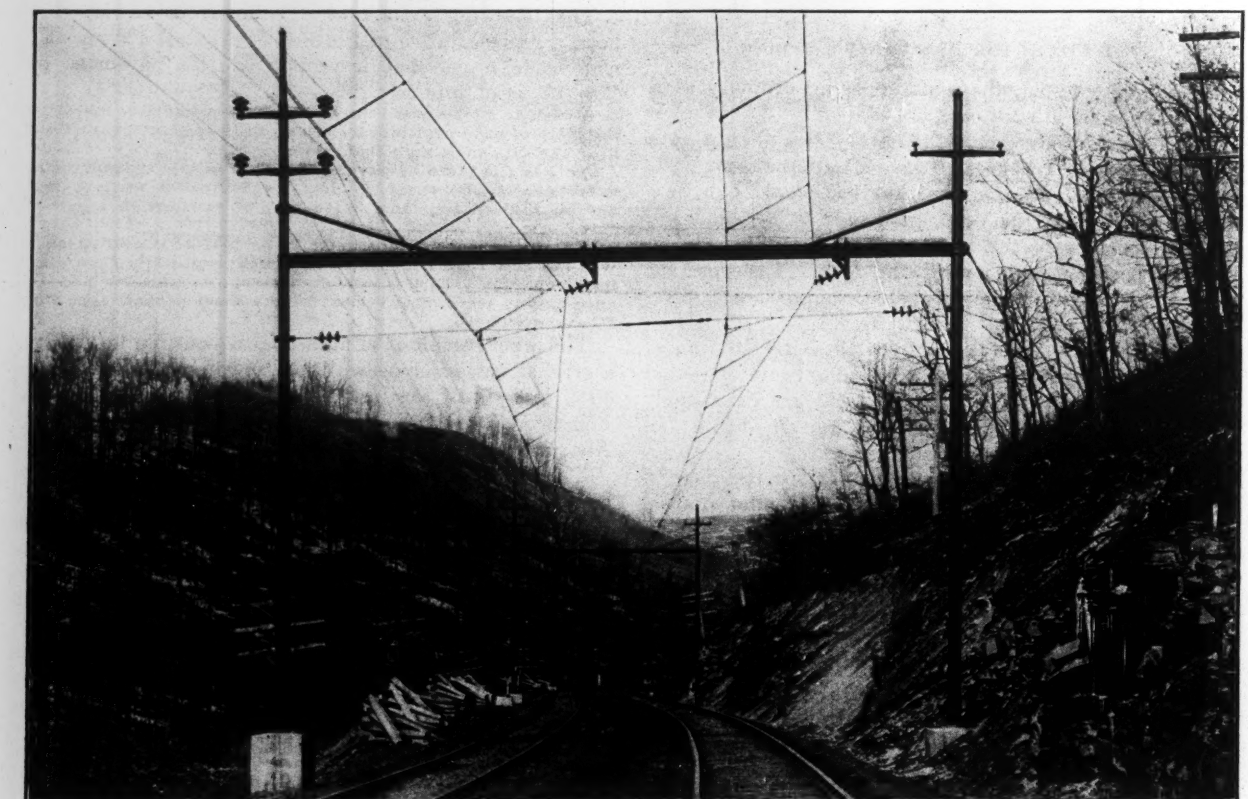


FIG. 1. TUBULAR-POLE CATENARY SUPPORT ON TYPICAL CURVE, NORFOLK & WESTERN RY.

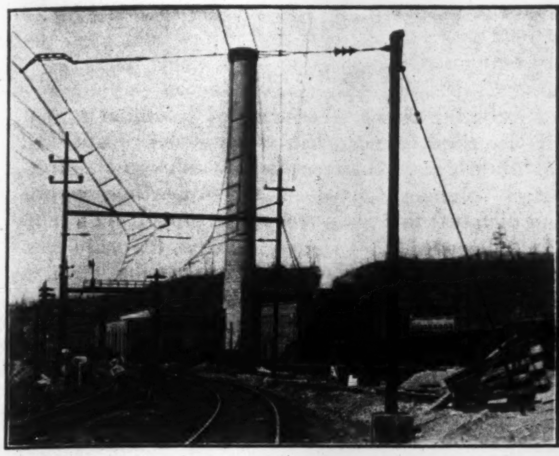


FIG. 2. PULL-OFF POLE ON TYPICAL SHARP CURVE
(Power house, and guyed and self-supporting bridges in the background)

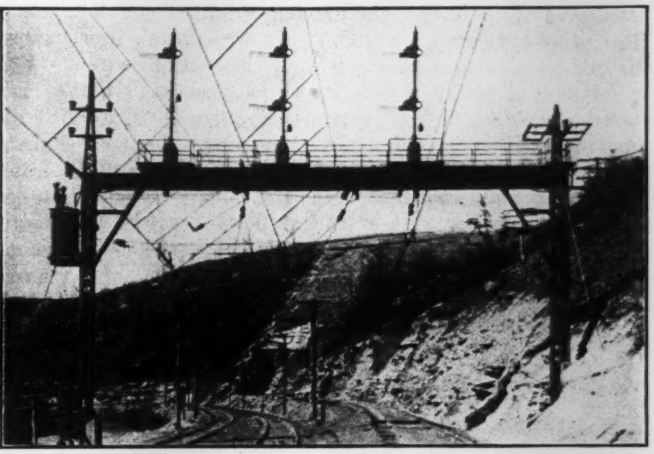


FIG. 3. SIGNAL-BRIDGE CATENARY SUPPORT
(Showing dead-ended messenger, contact-line breaks and booster transformer at the left)

forced-concrete foundations (1 : 2 : 5 mix) set in advance and cored with a collapsible form. A reinforcing collar of ½-in. plate protects the pole at and above the top of the foundations. Under the concrete is a copper plate with a bonding wire coming up to the pole.

BRIDGE GUYS

Each bridge stands alone on tangents, but is back-guyed on curves against the pull of the catenary, the guys carrying a considerable portion of the load. The guy anchors are concrete slabs containing two or more pieces of old rail, the size of each slab being such that its weight plus the dead-weight of earth above it is more than the maximum pull on the guys.

The guys are generally of round steel rod in three pieces. Where they pass through the earth they are protected by a boiler tube with grout filling. The upper sections of the rods are of uniform length, where the middle piece is cut as needed, with the final adjustment made by turnbuckles.

HEAVY BRIDGES

On curves where property for guy anchors was not available, unguyed light bridges, of structural posts and girders, support the catenaries. Where it was desired to anchor or dead-end the overhead system such bridges were used, but guyed along the direction of the track. Heavier bridges were used where both signals and catenaries had to be carried.

This type of supporting structure has proved very satisfactory where there is room on the right-of-way for guying. On long stretches of tangent track the cross-beams might interfere somewhat with the clear view of the signals; but here there is little tangent track, and no long stretches of it.

CATENARY ON TANGENTS

The construction over tangent tracks is very simple. A steel casting attached to the bridge girder supports a string of insulators, and to this, in turn, is attached a malleable-iron messenger clamp with arcing horns, so that if an insulator should break down the arc would be from the clamp casting and not the messenger wire.

The grip of the clamps is such that the cable will pull through at a certain tension; if a messenger breaks between anchors, it will slip through several supports adjacent to the break and distribute the abnormal strain over several intermediate bridges.

The main messenger is of ½-in. galvanized-steel stranded cable having a breaking value of over 30,000 lb. It is jointed by forged sockets designed to develop full cable strength. The nominal sag is 5 ft. in a 300-ft. span, but the actual sag depends on the particular span, which varies with the location. Every 30 ft. along the messenger are bent-strap clips which hold flat gal-

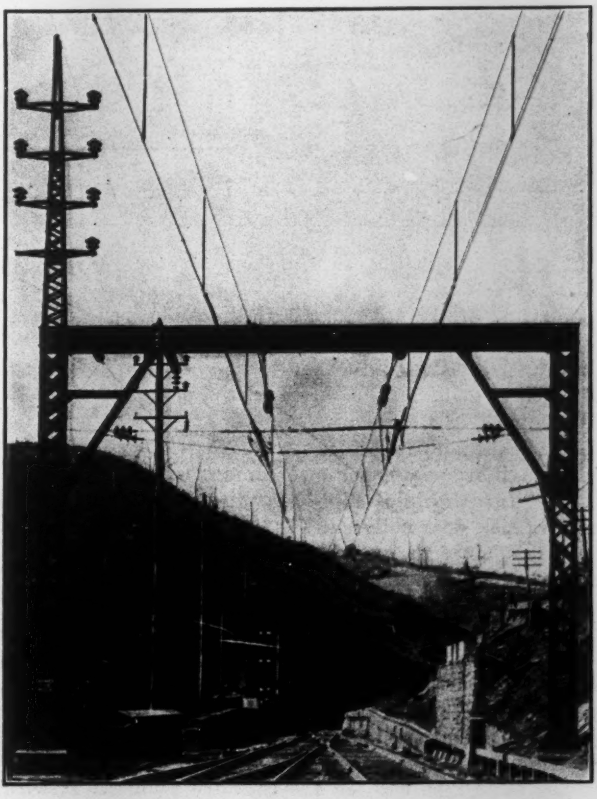


FIG. 4. SELF-SUPPORTING CATENARY BRIDGE; EAST PORTAL OF ELKHORN TUNNEL

vanized-steel strap hangers of varying lengths. On the bottom of each hanger is bolted a pair of malleable-iron trolley clips gripping the auxiliary messenger wire. The latter is a No. 0 round copper or steel wire, the material depending on the current-carrying capacity required. The grooved trolley wire is supported from the auxiliary wire by clips spaced 15 ft. apart and located between the main hangers. On the longer tangent stretches the running wire is held in place crosswise by steady strands insulated from ground and having 4-ft. impregnated wood-stick insulators between tracks.

Catenary on Curves

On curves the contact wire only approximates the track curvature, being permitted to be 12 in. off the center line of the track (or rather off the locus of the center of a locomotive-pantograph shoe because of outer-rail superelevation) in one direction at the bridges or supporting points and 6 in. off in the other direction at the center of the span.

The main hangers on curves are 15 ft. apart and grip both auxiliary messenger and contact wire at the same point. Intermediate clips are dispensed with. This construction does not result in "hard spots" in the overhead line, since the angularity of the hangers allows the contact wire to swing upward.

To avoid an uneconomically close spacing of structures on sharp curves (since the amount of trolley curvature obtainable with a fixed distance between supports is limited by the practical length of hangers and by the possible offset of insulators on the bridge), one or two pull-off poles are used between bridges. These are single tubular steel poles set in concrete, with single guys of the same type used on the catenary bridges. A wire strand from the pole top (insulated by a string of insulators) is fastened to both messenger and contact wire and serves to bend the plane of the catenary system, as shown in Fig. 2.

Yard Supports

Over yards the catenary construction is similar to that already described, except that cross-catenaries are used instead of bridges. Between two or more high structural-steel columns (guyed or self-supporting, as the location dictates) is a main messenger supporting a horizontal auxiliary cable. In some instances the main messenger is of 1½-in. cable having a breaking strength of about 240,000 lb. The hangers between top and auxiliary cables are ¾-in. rods and the connections are malleable castings. All cables are held to integral connection plates on the poles by heavy forged sockets and turnbuckles. In general all the cross-catenary materials are double galvanized.

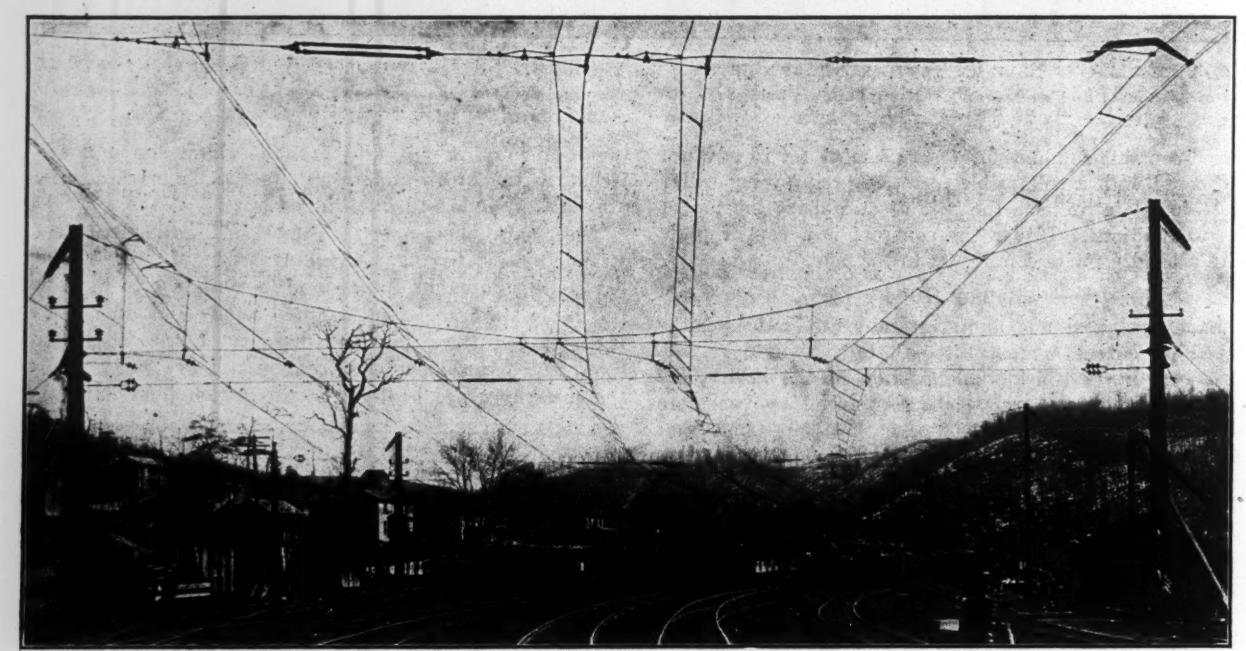


Fig. 5. Cross-Catenary Construction in Norfolk & Western Ry. Yards

Over sidings only two insulator disks in series are used and the auxiliary messenger wire is omitted. Chestnut poles and steel-bracket supports are used on branches and coal sidings.

Tunnel Construction

In the Elkhorn tunnel special construction was necessary. The walls are 14 ft. apart at the springing line and 13 ft. apart at the base; the springing line is 11 ft. 1 in. above the top of rails, and the top of the arch is 19 ft. 3 in. After experimental construction under high voltages with smoke and steam in a sample metal-lined tunnel the arrangement shown in Fig. 6 was worked out.

There is a supporting structure every 75 ft. Two cast-iron brackets are held to the brick lining of the tunnel by large bronze expansion bolts, and on each bracket is a 4400-volt transmission-line insulator. Between the two brackets is a 2-in. bent brass pipe carrying a third 4400-volt insulator on a bronze bracket. A cross-pipe, bent to follow the arch of the tunnel, and going from this pair of brackets to a corresponding one on the other side, supports a bronze messenger wire. There are two bronze contact wires held by triangular hangers from the messenger. In spite of limited clearances the tunnel equipment has stood a test of three times the normal voltage and has been satisfactory in service.

SECTION BREAKS

The running wire is sectionalized longitudinally where necessary by breaking the electrical continuity of the messenger wire with two parallel strings of three disk insulators. Directly below this break in the messenger the auxiliary and running wires are attached by turnbuckles to the ends of a heavy impregnated woodstick insulator. T-iron runners are connected to the ends of the contact wire and are supported by the woodstick insulator approximately parallel to each other at the same elevation. Thus they overlap longitudinally, but have ample electrical clearance. The locomotive-pantograph shoe in passing underneath makes contact with the second runner before leaving the first, and there is no interruption of the current supplied to the locomotive.

FIG. 6. CATENARY SUPPORT IN ELKHORN TUNNEL

Some of these breaks are provided to permit isolation of parts of the line for repairs, and the runners are normally connected by knife switches on top of the woodstick insulators. The blades can be opened and closed from the ground by long impregnated-wood poles.

At certain locations the catenary system is deadended and anchored longitudinally by attachment to the cross-girders of structural bridges with a double string of disk insulators. These breaks limit the zones of mechanical trouble in case of wreck and broken messenger wire.

TEMPERATURE CHANGES

All calculations in the design of the overhead system were made for a normal temperature of 60 deg. F. With lower temperatures the tension in all wires is increased and the contact wire rises somewhat toward the center of the span. A 6-in. rise in a 300-ft. span will make a trolley-wire gradient of only $^1/_{12}$ per cent., whereas ½ per cent. is permissible. With rising temperature above 60 deg., tension is decreased and the contact wire sags uniformly, but well within permissible limits.

TRACK BONDS

The rail joints are bridged by 37-strand (0.0534-0.475-in.) copper bonds. Each bond as received has a terminal welded on one end, but the other end is left free so that it can be pushed under the fishplate. The loose terminal is then soldered on and both ends are expanded into holes in the rail web. At signal bridges insulated rail joints are placed in the track and impedance bonds bridge the gaps, preventing the flow of 60-cycle signal current while passing the 25-cycle propulsion current.

TELEPHONE AND TELEGRAPH PROTECTION

From experience with alternating-current traction it was judged necessary to protect all telephone and telegraph lines along the railway from interruption of service by physical contact with the high-tension wires and from induction effects set up in parallel stretches by the power currents. The company's telegraph and telephone pole line was moved to the south side of the right-of-way and all crossings over the high-tension wire were eliminated.

To help against induction substations were placed somewhat closer together than would be required merely from considerations of voltage regulation and losses, and the end substations were placed near the ends of the line. This results in feeding each important section of trolley from both ends, so that the voltage induced in the parallel telephone and telegraph lines is largely neutralized and localized.

In addition, to provide against emergency conditions with one substation out of service or in case of short circuits, etc., booster transformers have been installed in the trolley and track circuits at 1-mi. intervals. These are series transformers, with their primary windings connected in series with the trolleys and their secondaries in series with the track at the middle point of the impedance bonds required at signals. These transformers were mounted on signal bridges (Fig. 3) and the track connections were carefully worked out so as not to interfere with signals. These transformers prevent the leakage of return current from the rails to the earth and thus keep the feeding and return circuits at a fixed distance from the telephone and telegraph wires. With

FIG. 7. REGENERATIVE-BRAKING RHEOSTAT, BLUESTONE POWER HOUSE

equal currents thus flowing in opposite directions in trolley and track the effect is still further to neutralize the induction in the telephone and telegraph lines. It is reported that since operation has been under way there has been no interference with the telephone and telegraph service.

Locomotive Inspection

Facilities for inspection and maintenance of the whole electric installation are concentrated at Bluestone, where the power station is located.

There is an inspection building and repair shop, 148x 68 ft. in plan, with two concrete main pits running the full length of the building—each accommodating one locomotive and equipped with power and lighting outlets.

The locomotives are not handled in the shop by their own power, but are drawn in and out by a cable and motor-driven winch in one end of the shop between the two main tracks.

Line Maintenance

The old locomotive-supply pumping station has become the headquarters for the line inspection and maintenance force. Here a full supply of materials is kept. A part of the building is fitted up as a bunk room for the repairmen who will be available day and night. On a nearby siding will be an emergency train, comprising a tower car, tool car and flat car to be drawn by a steam locomotive.

The ordinary repairs, however, are made by small gangs of three to five men using gasoline motor cars for carrying tools, materials and impregnated-wood extension ladders. Wherever possible the repairs are made from overhead bridges or from ladders, and while the line is alive, to prevent interruptions of service. Rigid rules are in force permitting the use of only one ladder at a time at one point, only one man on a ladder and no long lengths of wire. Some of the repairmen are regularly stationed at different points along the line.

A patrol telephone line runs the entire length of the electrified section, with instruments in locked boxes on signal bridges about a mile apart. This line leads to the power-station operator, through whom communication can be had with the train despatcher and other officials. The power director at the switch-board in the generating station is also in constant telephone communication with signal-tower operators, passenger-station agents, yard masters and all others responsible for the switching in substations and along the line.

Automatic Signals

The Elkhorn grade was formerly equipped with automatic storage-battery signals having semaphores on posts. Before electric operation started these signals were replaced by 60-cycle alternating-current apparatus adapted to the use of the track return for propulsion current and with the semaphores on certain catenary bridges.

Power Station

The power station follows lines of design familiar with steam boilers and steam turbines. The location, at Bluestone on the Bluestone River, was determined by the only available source of boiler-feed and condensing water in the district. The railway company had already built a dam and reservoir here for supplying steam locomotives.

The main structure, of brick, is 135x158 ft. in plan with a 52x33-ft. extension on the northeast corner for the 44,000-volt apparatus. The boiler room is 79 ft. 3 in. by 158 ft. 6 in., and the turbine room is 36 ft. by 158 ft. 6 in. The basement floors are at ground level, while the turbine room is 18 ft. and the boiler room 13½ ft. above.

On the ground floor of the transformer-house extension are the transformers, and on the second floor is the high-tension switching apparatus. The boilers, stokers, stoker engines and feed-water heaters are all on the main floor of the boiler room. Pumps, oil filters, air compressor, air-cleaning equipment and forced-draft fans are in the basement, with the pumps and filters in a separate room. The main generating units, exciters and signal current generators are on the main floor of the turbine room, with the condenser and fans for cooling the generators in the basement.

A section across the east end of the turbine room, 26 ft. wide, is used for switching equipment, offices, etc., and has intermediate floors and galleries. On the main floor is the low-tension switching room separated from the turbine room by heavy wire screens. The next floor above is the operating gallery. The top floor is used for offices.

There are three 10,000-kw. generating units, with space for a fourth. These are three-phase machines loaded on one phase for traction and carrying a small auxiliary load on all phases.

Cooling Pond

A spray cooling pond 90 ft. wide, 296 ft. long and 5 ft. deep is provided to take the water from all condensers when the supply of river water is low and muddy. When there is sufficient good river water the condensers discharge directly into the pond without spraying and the water flows down into the river reservoir. The basin is formed by a concrete retaining wall and a bottom of 6 in. of clay puddle, laid on a rolled subgrade and covered with 2 in. of asphalt concrete.

Regenerative-Braking Rheostats

The use of the locomotive-driving motors on down grades as generators returning power to the line for braking trains was outlined in the previous article. The excess power returned, when there are no trains on grades and the power-house load is very light, would pass back through the various transformers and reverse the generators so that they would run as motors. To prevent this, two loading rheostats, each consisting of a pair of electrodes in the power-house intake canal, are provided to absorb the excess energy. One electrode is a steel cone, dipping into the water and capable of being raised or lowered by a hand winch and cable; the other is an iron plate at the bottom of the canal and grounded to a copper plate bedded in the earth outside. The power-dissipating capacity of a rheostat is adjusted by varying the distance between cone and iron plate. The cones are connected through circuit breakers to the generator bus.

Action is made automatic by a group of relays, switches, current transformers, etc., so connected as to give the following action: When the returned power reaches 300 kv.-a., the relays and switches connect one pair of the electrodes on the bus. As soon as the returned power exceeds the capacity of one rheostat by 300 kv.-a., a sec-

and relay throws on the second pair of electrodes. The difference between the amount of returned power and the full capacity of the rheostats in service is furnished by the generator.

With two rheostats in service when the excess returned power drops to 2000 kv.-a., one set of the relays and switches disconnects one rheostat. The other remains on the 11,000-volt bus until the excess returned power drops to zero; then all of the rheostat load is carried by the generator and the second relay cuts the electrodes off the line.

TRANSMISSION AND DISTRIBUTION

Single-phase power is transmitted from the generating station to the substations along the line at 4400 volts and 25 cycles. There are two single-phase, high-tension lines the length of the section, comprising four No. 00 seven-strand hard-drawn copper cables. The wires are carried on the extensions of the catenary-bridge poles, except at the tunnels, where the transmission line goes over the summit on chestnut poles. A 3/8-in. steel ground wire is carried along the pole tops. The high-tension insulators are of a four-petticoat pin type giving a 165,000-volt dry flashover test and an ultimate mechanical strength of 4000 lb. at right angles to the pin.

All cross-arms are connected to a ground wire, which is connected to a copper plate at the base of every fourth pole. The high-tension lines are sectionalized at each substation by air-break switches on the roof.

Step-down transformers in the substations are connected to a bus, one side of which is grounded and connected to the running rails and the other side of which is connected to feeders which run to the contact system.

SUBSTATIONS

Brick substation buildings, housing the step-down transformers and switching equipment, are located at various points along the line (as shown in the map of the electrified section in the first article, June 17, p. 1192), except at West Vivian, where outdoor type of equipment is used because of the necessity of moving the substation when the electric-traction system is extended. One substation is located in the transformer house of the generating station, instead of feeding directly from the generator bus, on account of the greater short-circuit disturbances with direct feeders. The location and equipment of substations are summarized in the following table:

Substation	Miles from Power Station	Transformer Units, Kv.-A.	Total Capacity, Kv.-A.
Bluefield	E. 10	2-3000	6,000
Bluestone	0	2-2000	4,000
Maybeury	W. 5	2-5000	10,000
North Fork	W. 13	2-3000	6,000
Vivian	W. 18	1-2000	2,000
			28,000

The circuit-breakers in the substations cutting off current from the trolley wires are remote-controlled and are operated from adjacent signal towers or passenger stations. The substations therefore have no attendants.

The transformers are of a single-phase oil-insulated water-cooled type, water being obtained from a company pipe line. A portable transformer oil filter is provided for the substations, being transferred from one to another as required. In each substation is a 16-ton chain hoist for lifting cores out of the casing.

EQUIPMENT AND ENGINEERING

The heavy electrical equipment was designed and built by the Westinghouse Electric & Manufacturing Co., cooling pond by the Spray Engineering Co., power-house wire and cables, track bonds and oil filters by the General Electric Co., insulators and fittings by the Locke Insulator Manufacturing Co., steel cable and steel trolley wire by John Roebling's Sons Co., copper-alloy ("phono-electric") trolley wire by the Bridgeport Brass Co., copper trolley wire by the Standard Underground Cable Co., catenary-bridge poles by the National Tube Co., catenary structural steel by the Virginia Bridge & Iron Co., steel castings by the Fort Pitt Steel Castings Co. and the Standard Steel Works Co., malleable-iron catenary fittings by the Malleable Iron Fittings Co.

The entire installation was designed in all its details by Gibbs & Hill, of New York City, as the railroad's consulting engineers. The construction, except for some of the buildings and their equipment, was by a specially organized railway force under the direction of the engineers.

News of the Engineering World

Debris-Obstructing Bridge Seized by the Sheriff

During recent high water in the Kansas River the attorney for the Kaw Valley Drainage Board obtained instructions from the Governor of Missouri to the effect that the local sheriff should seize the bridge of the Kansas City Southern R.R. Co., which spans the river at Ohio Avenue, Kansas City, Mo. This bridge is 6½ ft. below the top of the levee, measured from its present lowest point of span, and is approximately 130 ft. short, the west abutment being entirely within the present bed of the channel as defined by the harbor lines.

This 130-ft. space is bridged by a timber trestle, which during high water collects much drift, as do also the three piers of the bridge. The drainage board's requirements are that bridges shall have not more than two piers in the channel, that the abutments shall be behind the harbor lines, and that the lowest point of span shall be as high as the adjacent levee grade.

The governor claimed authority for his act the fact that all navigable streams are under Federal jurisdiction, which is also vested in the drainage district in the event of there being any obstructions placed in the river, if these obstructions constitute a menace to life and property of the land owners in the district. The sheriff was ordered to turn this bridge over to the board of directors of the drainage district, who intended, in the event that the water rose to the lower girders, to remove the trestle at the west end of the bridge. This was done

on the afternoon of June 19, when the water was only 2 ft. below the structure.

There are only three bridges within the Kaw Valley Drainage District at the present time which fail to comply with requirements. These are the Kansas City Terminal, the Kansas City Southern Ry. and the Chicago Great Western R.R. bridges. These three companies are fighting the drainage board over the reconstruction of their bridges.

⁂

A Twin Highway Tunnel for Allegheny Co., Pennsylvania

Bids for a twin highway tunnel 4875 ft. long, with each finished tube 24 ft. wide and 18 ft. high, are to be received on July 12 by the county commissioners of Allegheny County, Pennsylvania. With the approaches, the total length of the improvement will be 5800 ft. The tunnel will be through shale. Its side walls will be of concrete. For the arch lining bids are asked on monolithic concrete, concrete blocks and brick. There will be a brick-paved roadway on a sand cushion and concrete foundation, two steel-bound concrete curbs and gutters, one brick sidewalk, and various drains, water pipe, and wire conduits in each tube. The improvement will extend from East Carson St. near Third St. in a southerly direction beneath Mt. Washington to Warrington Ave. near Boggs Ave., all within the City of Pittsburgh. It will provide direct highway connection with the business center for a section of the city which has had railway facilities for ten years. The county commissioners have authority to make a contract for running street-railway cars through the tunnel, but no steps to that end have yet been taken. It is purposed to ventilate the tunnel by blowing air into one end, after plans by Charles S. Churchill, assistant to the president of the Norfolk & Western R.R., Roanoke, Va. A. D. Neeld, 237 Fourth Ave., Pittsburgh, is Consulting Engineer for the County of Allegheny; Hyatt M. Cribbs is county controller.

⁂

Collapse of Arch Falsework, Detroit-Superior Bridge, Cleveland

On June 17 the steel arch forming the centering for the north inner rib of span 8 of the Detroit-Superior high-level bridge at Cleveland, Ohio, collapsed when 14 men were on it placing lagging for the concrete arch-rib. One man, the carpenter foreman, was killed and nine others were injured. The material damage was confined to the centering itself and to a minor scarring of the pier where the steelwork hit it in falling.

The Detroit-Superior bridge, described in ENGINEERING NEWS, June 18, 1914, p. 1348, comprises 12 concrete arches and one steel arch carrying a double-deck roadway over a total length of 2880 ft. The concrete arches are in four ribs, and their construction, now under way, is being carried out on two sets of three-hinged steel arches, one under each of two adjacent ribs. These steel arches rest on timber bents built close up to the piers, and are slid along the bents from one set of two arches to the opposite set. The thrust of the steel arches is taken by steel cables tying the end pins together.

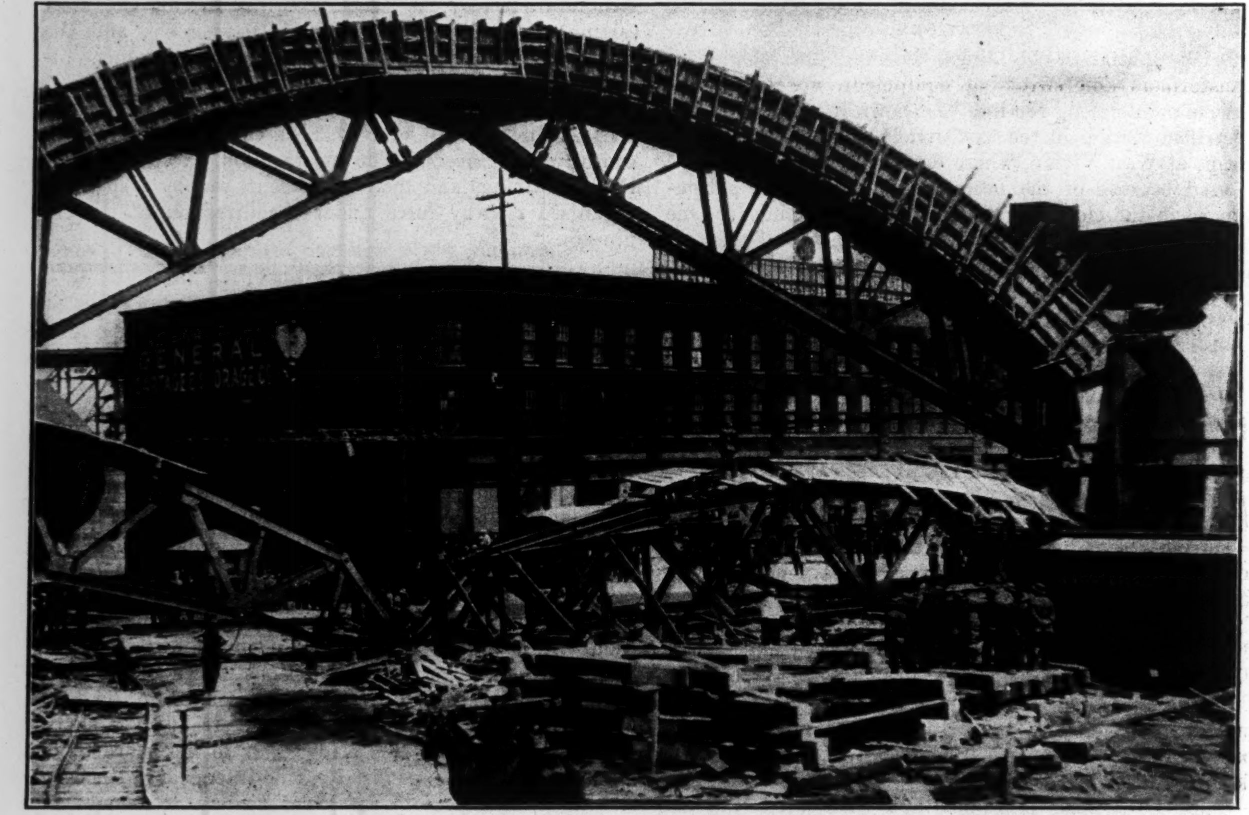


FIG. 1. SPAN NO. 8, DETROIT-SUPERIOR BRIDGE AFTER COLLAPSE OF ARCH CENTERING

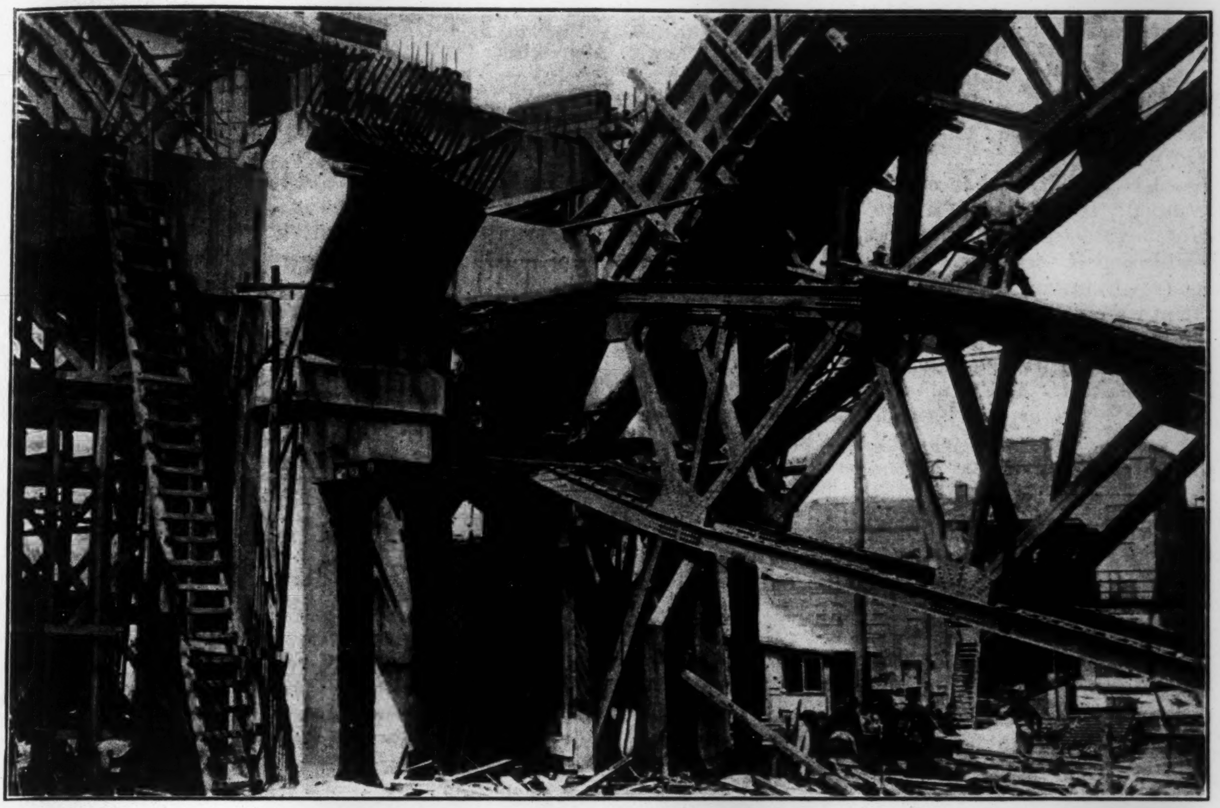


FIG. 2. NEAR VIEW OF COLLAPSED CENTERING

The concrete arch where the collapse occurred is 144 ft. 4½ in. long, and the span of the steel centering is 133 ft. c. to c. of end pins. The crown lagging was 60 ft. above the street. The collapse of the centers was caused by the breaking of two 1⅛-in. plow-steel cables tying the end pins together. The break took place when the centering was being moved along the supporting bents.

Fig. 1 shows the centering arches in place for the north outer rib and, in the foreground, the collapsed north inner rib. Fig. 2 shows the west leaf of the rib after failure. The haunch of this rib was forced against the concrete pier and in falling turned about the runway as a fulcrum, forcing the top chord against the transverse arch of the pier and chipping off a small piece of concrete. The 12x12-in. sticks on the supporting runway were all broken.

The bridge is being built for Cuyahoga County, Ohio, by the Hunkin-Conkey Construction Co. W. A. Stinchcomb is County Engineer and A. W. Zesiger is Bridge Engineer.

⁂

Another "Final" Decision on Flat-Slab Floor Patents

The United States District Court for the District of Minnesota on June 9, 1915, issued a decree providing for a perpetual injunction restraining C. A. P. Turner, of Minneapolis, Minn., from using his so-called "mushroom" flat-slab reinforced-concrete floor design, as described in his patents Nos. 985,119 and 1,003,384, which are ruled to be infringements of the Norcross patent No. 698,542. This injunction follows the decree of infringement handed down against Turner in favor of John L. Drum by the United States Circuit of Appeals, Eighth District, on Dec. 10, 1914 (ENGINEERING NEWS, Jan. 14, 1915, p. 91). A petition for a writ of certiorari was presented by Mr. Turner to the United States Supreme Court, but was denied on June 1, 1915.

The Norcross patent is now owned by the Flat Slab Products Co., McCormick Building, Chicago, Ill. This company has announced that it will license all who wish to design flat-slab buildings, charging a license fee of 1c. per sq.ft. of floor area, with a reduction for large areas used in one year.

Mr. Turner claims that the decision is still not final, inasmuch as the Norcross patent for a flat-slab floor is good only for steel reinforcement at the bottom of the slab. He admits that while he is enjoined from the use of direct and diagonal belts cob-piled over the column, the owners of the Norcross patent cannot build flat-slab floors without raising the steel to the top of the slab over supports, in which case, he contends, they infringe some of his patents which are still in litigation.

⁂

Opening Rapid-Transit Extensions in New York City

The first units of the new rapid-transit facilities in New York City have been opened for service. On June 22 the Fourth Ave. subway from Manhattan to Coney Island, via the Manhattan Bridge (see ENGINEERING NEWS, Oct. 1, 1914, p. 665), was put into regular service by the Brooklyn Rapid Transit Co. On the same day the Belmont or Steinway tunnel under the Harlem River was opened by the Interborough Rapid Transit

Co. for traffic between East 42nd St., Manhattan, and Long Island City, with transfers to the existing subway.

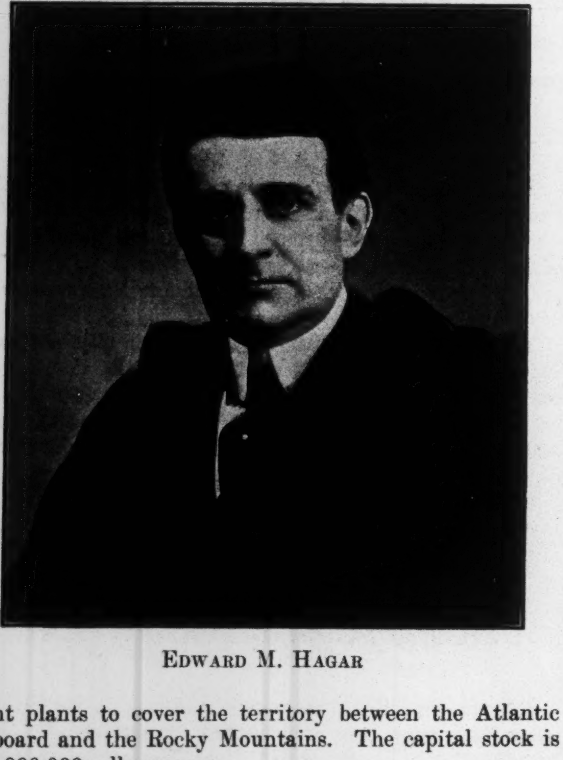
The Belmont tunnel is an old two-track project started in 1905. The tunnel was completed in 1907 (see ENGINEERING NEWS, Sept. 26, 1907, p. 348), but had never been used because of franchise litigation. It was purchased by the city and incorporated in the dual system. Eventually it will extend back to Times Square and forward to the east end of the Queensboro Bridge, whence it will connect with elevated lines to Astoria and Flushing (see ENGINEERING NEWS, Oct. 1, 1914, p. 666).

Until the Long Island connections are completed temporary service will be given with shuttle trains. At the Manhattan end passengers will be brought to the surface by an escalator. Twelve all-steel motor cars of the type used in the subway have been purchased for operation in the tunnel. Under the opening schedule there will be three trains of four cars each, operating on a headway of from four to five minutes.

⁂

A New $20,000,000 Cement Company

On June 9 a charter was issued under the laws of the State of Maine incorporating the Hagar Portland Cement Co., projected by Edward M. Hagar, Assoc. M. Am. Soc. C. E., who lately resigned the presidency of the Universal Portland Cement Co., Chicago, Ill., for the purpose of organizing a company to acquire and operate a chain of cement plants to cover the territory between the Atlantic seaboard and the Rocky Mountains. The capital stock is $20,000,000, all common.



EDWARD M. HAGAR

President Hagar announces the following officers of the new company: Morris Metcalf, Vice-President; B. H. Rader, Vice-President and Sales Manager; Gordon Wilson, Secretary and in charge of Cost Accounting; Leonard Wesson, Assistant to President in Operation and Construction; J. P. Beck, Assistant to President in Exte sion Work; C. W. Lyon, Engineer of Economies; J. I Barbazette, Superintendent of Construction. Pendi the election of a permanent Treasurer, the office will l filled by Gordon Wilson. The general offices of the com pany are located at 208 South La Salle St., Chicago.

Mr. Hagar is a graduate of the Massachusetts Institut of Technology of the class of 1893. He took a Maste Degree at Cornell University in '94. Shortly afterward he organized the firm of Edward M. Hagar & Co., in Chicago, which acted as agents for manufacturers of machinery. In 1899 he was appointed Manager of the C ment Department of the Illinois Steel Co. The steel company manufactured "Universal" portland cement until 1906, when the Universal Portland Cement Co. was formed with Mr. Hagar as President. He resigned the presidency of the Universal Portland Cement Co. in February of the present year.

⁂

Elimination of Garbage-Reduction Odors

A report on the elimination of odors from the Barren Island garbage-reduction works and two nearby plants, all taking garbage and dead animals from New York City, has been made by Irwin S. Osborn, Consulting Engineer of Toronto, Ont. (For copies, address Department of Street Cleaning, Municipal Building, New York City.) Complaints from residents near these plants led to the appointment of an investigating committee of city officials, citizens and representatives of the contractors. The committee engaged Mr. Osborn to study the problem in coöperation with Otto H. Klein, director of the Central Testing Laboratory. Mr. Osborn found that the equipment and operation of the plants were not such as to prevent odors. He recommends that measures be taken to prevent leakages of gases from the digesters and dryers; that condensers and scrubbers be improved, and in some cases enlarged; that more water and pumps be supplied for condensing and scrubbing; that the water used at the garbage-reduction works be metered; and that the city should thoroughly inspect the operation of the plants. The ENGINEERING NEWS is informed by John T. Fetherston, Commissioner of Street Cleaning, that the New York Disposal Corporation, which holds the contract for garbage disposal, is proceeding with the installation of new apparatus.

⁂

A Separate Sewerage System for Stockton, Calif., was authorized on June 15, when the people voted $350,000 for sanitary and $200,000 for storm sewers. D. J. O'Keefe is Commissioner of Public Works and George W. Pulich is City Clerk.

The Reconstruction of the Ohio River Bridge of the Cincinnati Southern Ry. at Cincinnati, Ohio, is under consideration, the general project being to erect a new and heavier superstructure on the present piers. The bridge is 3822 ft. long, including approaches. It has a 519-ft. channel span, two 300-ft. spans, and a 370-ft. drawspan, while the north approach has truss spans of 118 to 190 ft. It was built in 1877 by the Keystone Bridge Co., to the designs of J. H. Linville.

The Battleship "Arizona" was launched at the New York Navy Yard, Brooklyn, N. Y., on June 19. The arrangements were perfect. The 50,000 people admitted to the yard were in designated places. There were no cases of accident or sickness, though hospital provisions were complete. The vessel slid down the ways smoothly and took the water easily. The keel of the "Arizona" was laid Mar. 16, 1914. At the time of launching she was about 65 per cent. complete and weighed 13,000 tons. There was an added moving weight of 500 tons in sliding ways, cradle and timbers. The speed of the ship on entering the water was about 15 mi. per hr. This is the fourth vessel built at the New York Navy Yard and the third in the United States Navy to bear the name "Arizona." It is 608 ft. long overall and 97 ft. in breadth, and will have a displacement or 31,400 tons. She will use oil fuel only and will have 34,000 hp. in Parsons-type turbines Four propellers will give a speed of 21 knots. She will carry twelve 14-in. rifles and twenty-two 5-in. rapid-fire guns, two 3-in. field pieces and four aëroplane guns. The crew will number 927, besides 53 officers.

PERSONALS

Mr. Elwood N. Layfield, M. Am. Soc. C. E., of Chicago, Ill., has been appointed Assistant Secretary of the Western Society of Engineers.

Mr. Ben K. Curtis has resigned as City Engineer of Cañon City, Colo. Mr James Bunten, County Surveyor, has been elected to fill the vacancy.

Mr. Alger C. Gildersleeve, Assoc. Am. Soc. C. E., of New York City, has been appointed Secretary of the Chamber of Commerce of Bayonne, N. J.

Prof. Arthur N. Talbot, M. Am. Soc. C. E., of the University of Illinois, was given the degree of Doctor of Science by the University of Pennsylvania on June 16.

Mr. Thomas L. Fountain, Assoc. M. Am. Soc. C. E., of the Fountain-Shaw Engineering Co., of Dallas, Tex., has been appointed Engineer of Sewers of the City of Dallas.

Maj.-Gen. George Washington Goethals, M. Am. Soc. C. E., had his long list of doctors' degrees added to on June 15, when Princeton University conferred on him the honorary degree of Doctor of Laws.

Mr. Charles J. Hogue, Assoc. M. Am. Soc., C. E., formerly connected with the Cumberland & Pennsylvania R.R., has been elected President of Brownworth & Co., Constructing Structural Engineers, of Philadelphia, Penn.

Mr. W. C. Irwin, formerly of the Engineering Department, of St. Louis, Mo., has been appointed District Representative in St. Louis, of the Kalamazoo Railway Supply Co., of Kalamazoo, Mich. His office will be at 304 Frisco Bldg., St. Louis.

Mr. Daniel B. Sayer, Assoc. M. Am. Soc C. E., formerly of the firm of Major & Sayer, Civil and Contracting Engineers, of Wellsville, N. Y., has opened an office in Wellsville, where he will continue the practice of civil and contracting engineering.

Mr. Stewart M. Marshall, M. Am. Soc. M. E., formerly Chief Engineer of the Cambria Steel Co. at Johnstown, Penn., is now associated with the Southwark Foundry & Machine Co., of Philadelphia, as Manager of its turbine and centrifugal-pump departments.

Mr. Claude L. James, for several years City Engineer of Mattoon, Ill., has been appointed Superintendent of Water Works. He will continue to carry on a private practice as a consulting engineer. Mr. John A. Goetz will succeed Mr. James as City Engineer.

Mr. Charles S. Bilyeu, Assoc. M. Am. Soc. C. E., formerly New York Representative of Colby & Christie, Inspecting Engineers of Philadelphia, is now general manager of the inspection business of Hildreth & Co., Consulting and Inspecting Engineers, of 15 Broad St., New York City.

Mr. David F. Crawford, M. Am. Soc. M. E., Superintendent of Motive Power of the Pennsylvania Lines West of Pittsburgh, and, during the past year, President of the Master Car Builders' Association, received the degree of Doctor of Engineering from the State University of Kentucky last week.

Mr. D. L. Yarnell, Assoc. M. Am. Soc. C. E., who has been in charge of the local office of Drainage Investigations of the U. S. Department of Agriculture at Richmond, Va., has been transferred to the Office of Public Roads and Rural Engineering, 515 14th St., N. W., Washington, D. C. The Richmond office has been discontinued, but Mr. Yarnell will continue to conduct the work at the above address.

Mr. Julian M. Bamberger, formerly Vice-President of the Salt Lake & Ogden Ry., has been elected President and General Manager, to succeed his father, Mr. Simon Bamberger, who recently resigned. Mr. Bamberger's headquarters will be at Salt Lake City, Utah Mr. J. B. Bean, formerly Secretary and Treasurer, has been elected Vive-President and Treasurer. Mr. E. J. Vail has been elected Secretary.

Mr. Charles McHercher, formerly Assistant Engineer of the Cuba R.R. Co., has accepted a position as Engineer with the Dibert, Bancroft & Ross Co., Ltd., of New Orleans and Camagüey, Cuba. Mr. McKercher will be in charge of the engineering of the company, which is building three mills on the island, and will also have charge of railroad location and construction for the development of the company's plantation in the Province of Camagüey, Cuba.

Mr. Edward F. Murphy, Division Engineer in Charge of Sewer Service of the Public Works Department of Boston, Mass., has been appointed Commissioner of Public Works, to fill the vacancy caused by the resignation of Mr. L. K. Rourke, M. Am. Soc. C. E. Mr. Murphy has been in the service of the city since 1887, rising through the grades of rodman, transitman, assistant engineer and district engineer, and finally division engineer. In his new position he will receive a yearly salary of $9000.

OBITUARY

James Everett Allen, Superintendent of the Street and Sewer Department of South Orange, N. J., died at his home in that city on June 16, in his 65th year.

Charles L. Haydock, Assistant Engineer at St. Louis, Mo., of the Missouri Pacific Ry., was drowned recently at Leavenworth Junction, on the Missouri River, while superintending the making of willow mattresses to prevent the river from undermining the tracks. He was 31 years of age.

Lieut.-Col. Charles E. Woodruff, Medical Corps, U. S. A., a well known sanitarian and authority on tropical diseases, died at his home in New Rochelle, N. Y., on June 13. He was the author of "The Effect of Tropical Light on White Men" and "Expansion of the Races." After his retirement, in 1913, on account of disability due to his service in tropical countries, Col. Woodruff served for a time as Chief Health Officer of New Rochelle.

Sir Nathaniel Barnaby, Honorary Vice-President of the Institution of Naval Architects, died on June 15 at London, England, at 86 years of age. He was long and widely known as a naval designer and author of several works on shipbuilding. He was Admiralty Overseer during the building of the royal ships "Viper" and "Wrangler" and was subsequently employed in the designing offices of the Admiralty at Somerset House. For a long period of years he was Head of the Designing and Building Departments of the Controllers of the British Navy. He designed the battleship "Inflexible." He was born at Chatham and educated at that place and at Sheerness and Portsmouth.

Brig.-Gen. Charles Julius Allen, U. S. A., retired, died at Asheville, N. C., on June 15, at 75 years of age. Gen. Allen was born at Buffalo, N. Y., and was a graduate of West Point. At the beginning of the Civil War he was assigned as First Lieutenant of Engineers, and was brevetted Captain in August, 1864. He won the rank of Major in March of the following year, and was Chief Engineer of the Army of Observation on the Rio Grande. After the war he was detailed on fortifications and harbor and river improvements, and during the Spanish-American War was stationed at Washington, D. C., in charge of defenses there. In 1904 he became Brigadier-General, and at that time retired, at his own request, after 40 years of service.

ENGINEERING SOCIETIES

COMING MEETINGS

OHIO SOCIETY OF MECHANICAL, ELECTRICAL AND STEAM ENGINEERS.
June 17 and 18. Semi-annual meeting at Toledo. Secy., Frank E. Sanborn, Ohio State University, Columbus.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.
June 22-25. Annual meeting at Iowa State College, Ames, Iowa. Secy., F. L. Bishop, University of Pittsburgh, Pittsburgh, Penn.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
June 22-25. Summer meeting at Buffalo, N. Y. Secy., Calvin W. Rice, 29 West 39th St., New York City.

AMERICAN SOCIETY FOR TESTING MATERIALS.
June 22-26. Annual meeting in Atlantic City. Secy., Edgar Marburg, University of Pennsylvania, Philadelphia, Penn.

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS.
Aug. 16-18 and 25-28. Annual meeting in Los Angeles, Calif., Aug. 16-18; in San Francisco, Aug. 25-28. Secy., J. C. Olsen, Cooper Union, New York City.

INTERNATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS.
Aug. 24-27. Annual convention in Cincinnati. Secy., Clarence R. George, Houston, Tex.

American Electric Railway Association—The headquarters of the American Electric Railway Association have been removed from 29 West 39th St., New York City, to 8 West 40th St. The secretary is E. W. Burritt.

New England Water Works Association—President Metcalf has appointed the following convention committee to arrange the details of the annual meeting: Alfred D. Flinn, chairman; W. W. Brush, F. F. Langley, H. B. Mocher, Fred S. Bates, and Charles W. Sherman. The convention will be held Sept. 7 to 9, in New York City, at the Waldorf-Astoria Hotel.

American Association of Landscape Architects—The Minneapolis Chapter has volunteered to submit to the City of Minneapolis sketch plans and specifications for a Minneapolis-Minnetonka driveway, which, it is stated, can be made one of the most beautiful in the world. Lake Minnetonka is about 12 mi. from Minneapolis and because of its broken character has a shore line of 100 mi.

Southwestern Water Works Association—The fourth annual convention was held at Galveston, Tex., June 14 to 16. About a dozen papers were read. A resolution granting associate members (supply men) the full privileges of the association was adopted. Action on the proposed constitution and by-laws submitted by L. H. Gray, of Lufkin, Tex., was postponed until 1916. Jesse Shaw, of Topeka, Kan., was elected president. The next convention will be held at Waco, Tex. E. L. Fulkerson, of Waco, Tex., is secretary and treasurer of the association.

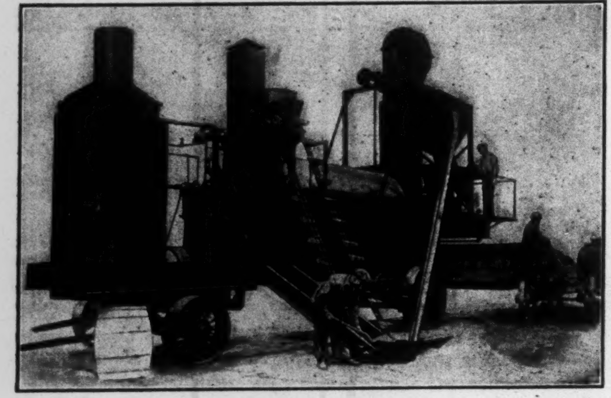
Boston Society of Civil Engineers—The Joint Field Day at Pemberton, Mass., of the New England Water Works Association and the Boston Society of Civil Engineers was held on June 16, as scheduled. After luncheon at the Pemberton Inn, the water-works association held a business meeting, at which 81 active and 3 associate members were admitted. The unusually large number of applicants was partly due to the recent action of the association in remitting entrance fees to members of the American Water Works Association. After the luncheon a baseball game was played by teams from the two societies, with James W. Rollins and William S. Johnson as umpires. We have not yet been informed as to the score.

Appliances and Materials

Barber Portable Asphalt Plant

The new portable asphalt-mixing plant shown in the accompanying view has just been put out by the Iroquois Works of the Barber Asphalt Paving Co., Buffalo. It has a capacity of 800 sq.yd. of 2-in. sheet topping per 10-hr. day; its capacity for asphalt concrete or macadam is much larger. The plant is designed especially to meet the requirements of contractors and municipalities having new construction and maintenance work to perform in scattered territory or in an amount insufficient to make a stationary plant economical.

The mixing platform is elevated so that a wagon can be driven under it to load. The platform is arranged for one-man operation, the levers for controlling clutches, etc., being within easy reach. The mixer is a two-shaft, pugmill type, with removable side and end liners. It is provided with two full sets of blades, the binder blades being solid manganese-steel. The sand-measuring box and asphalt bucket are supported on scales. A special drying drum has been designed for this unit to insure a sufficient amount of heated sand and stone. There are removable steel wearing plates in the material chutes and chilled rims for all chain sprockets.



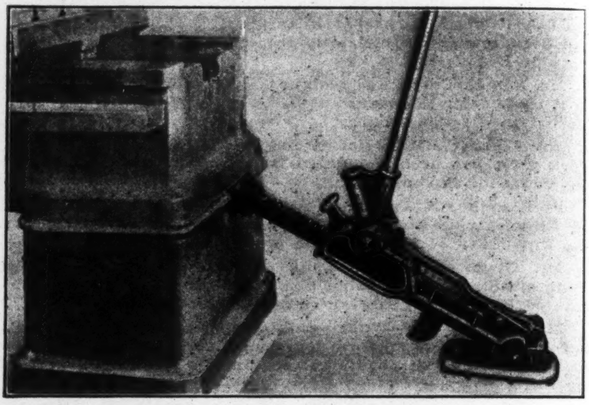
Portable Asphalt Plant

The paving plant having one of these machines would be operated as two units, the second unit being the asphalt kettle. The mixing unit can be supplied, however, without boiler and engine, so that the contractor or municipality already provided with portable boiler, engine and kettles can secure the mixing plant without duplicating that equipment.

* * *

Another Adjustable Jack

A jack with an adjustable base has recently been put out by Templeton, Kenly & Co., of Chicago, for use where pushing or lifting, or both, are required. As shown, the frame is a heavy ribbed malleable-iron casting. The base is broad and toothed on the under side. The frame bears on the base through two-faced circular shoulders and the pin carries no load. The rack bar and cap are forgings.

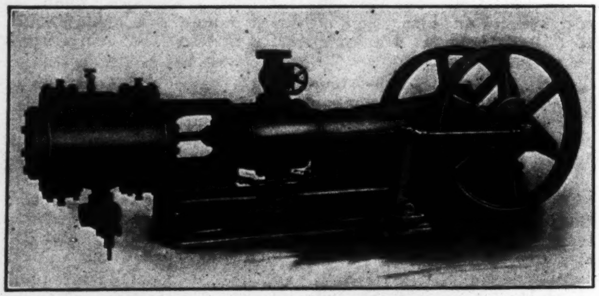


Lifting and Pushing Jack

* * *

New Small Air Compressor

A new design of small air compressor, shown in the accompanying view, has been brought out by the Ingersoll-Rand Co., 11 Broadway, New York City, in response to a demand for small machines of greater efficiency. The new type resembles the company's older small machines, but has such improvements as the Rogler thin-spring air valves, balanced-piston steam valves (for either low or high pressures and superheat), automatic steam cutoff with centrifugal flywheel governor, splash lubrication, air unloader, inclosed construction with removable covers.



New Small Air Compressor

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Sewage-Ejector System

An ejector system for clearing sewage sumps or tanks in which any liquids have accumulated is being made by James Beggs & Co., 36 Warren St., New York City. The familiar scheme is employed of having a large chamber with inlet and outlet check valves on the bottom and inside a float controlling the admission of air above the liquid. In this design the float operates an electric switch which controls a solenoid-thrown air valve and connects the chamber alternately with the compressed air supply and the atmosphere.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

THE CONTRACTOR AND THE NEW YEAR

The outlook for work in the New Year is far brighter than was thought possible three months ago. There will be quite as much money, or nearly as much, spent for real improvements, where there is actual work of an economically profitable nature to be done, as before, but less will be spent for expensive residences, extravagant railway stations, and public buildings. It is probable that the automobile expenditures will be on a reduced scale, even though the number of cars bought will be greater.

Local financial interests in almost every community east of the Mississippi River and north of the Ohio, will be able to finance the improvements in their immediate vicinity. In many communities outside this restricted area they will likewise be able to, but it is evident that each locality must be more or less self supporting; they will have to secure the coöperation of their own banks and insurance companies, as well as private investors, to take their loans, rather than try to market everything in New York or Chicago.

Financial conditions steadily improve. Some sales of municipal bonds have been made on a basis of 4.30 per cent., which is very attractive. The total sales of municipal bonds in 1914 aggregated more than $450,000,000, an increase of 13 per cent. compared with the previous year, which also established a new high record. Finances of the country are in excellent shape, and the return from municipal bonds is so large that they will be more generally purchased by the class of investors who formerly put their money into less safe propositions.

Prices of supplies are low. A recent advance of a dollar per ton in steel products may mark the turning point from the extreme low level, but it seems unlikely at this time. Cast-iron pipe is undeniably cheap, and much buying has been induced by the low quotations offered. Metals show little change from a month ago, and have not been active. Copper is not low enough to induce buying, and other metals enter into engineering construction in a limited way, that price has no effect.

The railroad rate decision probably granted the carrier as much gain as any of the railway presidents expected. The railways continue to have a hard time of it, because of light traffic, and, perhaps, imprudent expenditures in the past.

The decision handed down the last day of the year by the Appellate Division of the State of New York which declared the Alien Labor clause unconstitutional, was a victory for contractors. Subway work in New York can now go forward.

More attention will be paid to navigation, the building of docks, and work in shipyards, this year than there has been in the last. The policy of extending trade to foreign lands does not affect the contractor much, but it has a sympathetic effect in that anything which increases the business of the country makes for the welfare of the contractor, and in 1915 there will be a gradual though slow expansion of foreign trade.

A loan to the city of Montreal and one of $15,000,000 to Argentina mean much to American manufacturers, and may result in more American capital going into foreign lands.

The leading manufacturers of cement have dropped their quotations to meet the price of the smaller operators. New quotations represent a decline of approximately 16 cents per barrel from those previously current. These, however, were not strictly adhered to.

LABOR

More studied efforts are being made by men accustomed to large operations to take care of the unemployed than ever before. The efforts are resulting in fewer clashes between employees and the police in New York. The announcement that the U. S. Steel Corporation would not reduce wages is taken as an indication that there will be no general wage reduction. A decision was handed down that the Alien Labor law in New York was unconstitutional. This disposes of a case which, for a short time, caused much furor in New York.

CEMENT, LIME AND BRICK

Portland Cement—The leading makers of cement in the East, last week, reduced their price to conform to that of the smaller dealers. This reduction amounts to about 16c. in the East and 8c. in the West. It is believed that the low prices will be short lived. This represents a quotation of 75c. per bbl. in bulk at the mill.

The preliminary estimate of the production of Portland cement in 1914 indicates a falling off of about 4%, the first reduction in output since the industry was established. It is figured that the total production of portland cement in the United States was 88,514,000 bbl. in 1914, compared with 92,097,000 in the previous year. Stocks at the end of 1914 were figured at 12,818,000 bbl., compared with 11,220,000 at the end of 1913. This increase is specially large, amounting to 14%.

The quotations given below do not include the charge of 40 cents made for bags, but are for barrels of cement delivered at the points named, in cloth sacks less their charge:

Chicago	$1.02	Boston	$1.66
Detroit	1.14	Cleveland	1.23
Jersey City	94	Duluth	1.33
New York	1.02	Minneapolis	1.25
St. Paul	1.25	Pittsburgh	1.00

Lime—Business continues quiet and prices are unchanged; 97c. per barrel for state common, 200 lb. net; $1.37 for 300 lb. barrel; $1.55 for 300 lb. finishing; $1.10 for 200 lb. finishing; and $1.72 for 350 lb.

Brick—Prices are lower and Hudson River common brick can be had at $5 New York.

IRON AND STEEL

Pig Iron—Better business was the rule during December. Some fair buying occurred, especially in the West. The Buffalo furnaces were fairly well cleaned up, as far as the low-priced iron went. A feature of the month's business was the inability of Birmingham producers to maintain a $10 quotation for No. 2 Southern Foundry. In Cincinnati prices went off slightly, but in New York there was an advance. In Chicago likewise prices are slightly higher than they were Dec. 1. It is evident that several additional furnaces will go in blast this month, but the net gain in production is problematical. The pig-iron output is about 50% of normal, and for December will not be far from 1,500,000 tons. The buying movement, which was fair, was not of the broad character which so often marks the depth of depression.

Quotations for pig-iron in lots of 100 tons or over at the points named are as follows: Cincinnati: Southern Foundry No. 2, $12.50 to $13; Northern Foundry No. 2, $14 to $14.50; Northern Foundry No. 3, $13.75 to $14.

In New York, iron is quoted as follows: No. 2-X Northern Foundry, $14.25 to $14.50; No. 2 plain Northern Foundry, $14 to $14,25; No. 2 Southern Foundry, delivered tidewater, N. Y., $14 to $14.25.

In Birmingham, Southern Foundry No. 2 is $9.50 to $9.75. Several sales have been made at the latter figure. In Chicago, Northern Foundry No. 2 is $12.75 to $13.25. In Pittsburgh, bessemer iron is $14.70 and basic $13.45. This includes the 95-cent freight rate from the Valley to the Pittsburgh District.

Steel Rails—The buying of rails was more active in December than in any month of the last half of the year, but even this was nothing to boast about. The New York Central placed a contract for a fair lot, and it is evident that the other trunk lines will buy about 50% of their normal requirement. American mills had very little hope of getting the 30,000 tons of rails wanted in Norway, and consequently were not disappointed when the order was placed with German mills. In the South American trade and Asiatic business, however, there is quite a little likelihood of a change, and considerable steel will be shipped to Siberia by way of the Panama Canal in the spring. It is believed that the Pennsylvania will buy 200,000 tons this year, and the Baltimore & Ohio is reported to be negotiating for 40,000 tons. A feature of the present market is the demand for light rails which has come from rerolling mills, and are selling for about a dollar per ton less. Other quotations are as follows: Standard quotations for lots of 500 tons or over are unchanged. Standard sections of bessemer are $28, and basis $30. These quotations are per net ton f.o.b. Pittsburgh. Girder rails in 30-ft. lengths are $36.40 per gross ton, and in 60-ft. lengths $38.40, both f.o.b. New York. Other prices f.o.b. Pittsburgh for large lots are as follows: Standard sections, $1.25; 25- to 45-lb. sections, $1.15; 16- to 20-lb., $1.20; 12- to 14-lb., $1.25; 8- to 12-lb., $1.30. All of these quotations are per 100 lb. Relaying rails in New York are cheaper at $19 to $19.50 per ton.

Structural Shapes—Reports of the Bridge Builders' Society show that business has not improved to any extent. Fabricating shops are still running about 30% of maximum capacity. Most of the work is small lots. The most interesting piece of news is the advance of a dollar per ton in structural shapes and the announcement that the subway work in New York will go forward without any further hindrance due to the recent decision that the Alien Labor Law was unconstitutional. Prices are stated a dollar per ton higher than last month, and for large lots from mills Pittsburgh are as follows: I-beams, 3 to 15-in.; channels, 3 to 15-in.; angles, 3 to 6-in.; and T's, 3 in. and over, 1.10c. Other quotations are: I-beams over 18-in.; H-beams over 18-in.; channels over 15-in.; angles over 6-in., 1.25c.; T's, 1.20c. Deck beams and bulb angles, 1.45c; handrail T's, 1.90c. Cutting to specified lengths is charged at the following rates: Under 3 ft. to 2 ft. inclusive, 25c. per 100 lb.; 2 ft. to 1 ft. inclusive, 50c.; less than 1 ft., $1.55. No charge is made for cutting into specified lengths over 3 ft. In Chicago the base price is 1.25 to 1.30c. for mill shipment, and for shapes out of warehouse 1.80c. is demanded. In New York the base price is 1.29c.

Cast Iron Pipe—It is generally recognized that prices of cast-iron pipe are unusually low. Business shows more activity, due, doubtless, to the attractive quotations. Most of the buying comes from private water companies, gas companies, and other consumers who are quick to recognize bargains, but there has been a notable increase in buying by municipalities. Boston is again in the market for 4000 tons, having bought a similar lot in November. It is believed that some foreign business will shortly be developed. Operations in the foundries in the Birmingham district have been increased within the last week. The following quotations are per net ton at the points named:

Birmingham, Ala., 4 in., $20; 6-in. and upward, $19.
New York, N. Y., 6 in. and larger, $20 to $20.50.
Chicago, 4-in., $25.50; 6- to 12-in., $23.50; over 12-in., $22.
Gas pipe is $1 per ton higher in all markets.

Plates—The advance from the low quotation of 1.05c. Pittsburgh made on Dec. 30 did not stimulate any trade, but it improved the situation. Inquiries have come up for several boats, mostly tankers, and there is a fair inquiry for plate for water pipe on the Pacific Coast. Railroad business is exceedingly quiet. It is rumored that the Pennsylvania will build several thousand steel gondolas, but most of the railways are content to wait, as they have plenty of rolling stock for the traffic now offering, and can get new stock made up in a very short time. The base price is 1.10c. Pittsburgh, and includes all sizes above ¼ in. For sizes under ¼ in., to and including 2 1/16 in., 1.20c., is paid. In Chicago mill shipments are 1.25c., and for plates from stock 1.75c. to 1.80c. In New York, mill shipments are 1.31c.

Pipe—Business shows more activity. There are several inquiries for line pipe, and while no one expects the trade of last year, it is evident that there will be a fair run of business. Discounts continue without change the following discounts and net prices being repeated from last month:

	Black	Galvanized
¾- to 2-in. steel, butt welded	81%	72½%
2½- to 6-in. steel, lap welded	80%	72½%
7- to 12-in. steel, lap welded	77%	66½%

At these discounts, the net prices of pipe per foot, in large lots, at Pittsburgh are as follows:

	Cents			Cents	
Diameter	Black	Galvanized	Diameter	Black	Galvanized
¾-in.	2.20	3.15	5-in.	29.60	42.20
1-in	3.24	4.67	6-in.	38.40	54.60
1¼-in	4.38	6.30	7-in.	55.00	80.00
1½-in	5.25	7.55	8-in.	57.50	84.00
2-in.	7.05	10.15	9-in.	79.50	$1.16
2½-in.	11.70	16.70	10-in.	95.00	$1.38
3-in.	15.25	21.80	11-in.	$1.06	$1.55
4-in.	21.80	31.00	12-in.	$1.17	$1.70

Sheets—While it is not generally recognized as a sign of improved conditions, it is almost always the case that larger buying of steel products in general is foreshadowed by more activity in the sheet trade. The news that the mills of the corporations are operating at 60% of capacity, and some of the independent mills as high as 75%, will be welcome to those who are looking for an improvement in the trade. Business is fairly active, and there is a disposition to let conditions take their course, and not force a market, as it is recognized that prevailing prices are unusually low.

The following quotations are for large lots of sheets in Pittsburgh and small lots from store, New York.

	Cents per Pound			
	Large lots Pittsburgh		Ware house delivery New York	
	Black	Galv.	Black	Galv
No. 10	1.55	1.90	....	....
No. 12	1.55	2.00	....	....
No. 14	1.60	2.00	....	....
No. 16	1.65	2.15	2.35	2.75
Nos. 18 and 20	1.70	2.30	2.40	2.90
Nos. 22 and 24	1.75	2.45	2.45	3.05
No. 26	1.80	2.60	2.50	3.20
No. 27	1.85	2.75	2.55	3.35
No. 28	1.90	2.90	2.60	3.50

Steel Sheet Piling—Very little business is offering and the base price in Pittsburgh is unchanged, at $1.55 to $1.60.

Steel Shapes—For small lots of iron and steel from jobbers' warehouse in New York. Quotations are $1 per ton higher than last month. The revised prices are given below:

	Cents Per Lb.
Refined iron:	
1 to 1⅞ in., round and square	1.85
1½ to 4 in. x ⅜ to 1 in	1.85
1½ to 4 in. x ¼ to 5/16 in	2.05
Norway bars	3.20
Burdens bar iron	3.15
Soft steel:	
¾ to 3 in., round and square	1.85
1 to 6 in. x ⅜ to 1 in	1.85
1 to 6 in. x ¼ and 5/16	2.00
Rods—⅝ and 11/16 in	1.95
Bands—1½ to 6x3/16 in. to No. 8	2.15
Beams and channels—3 to 15 in	1.90
Angles:	
3 in. x ¼ in. and larger	1.90
3 in. x 3/16 in. and ⅛ in	2.35
1½ to 2¾ in. x 3/16 in. and thicker	2.00
11½ to 2½ in. x ⅛ in	2.10
1 to 1¼ in. x 3/16 in	2.10
1 to 1¼ in. x ⅛ in	2.15
Tees:	
1½ to 2½x¼ in	2.05
1½ to 2½x3/16 in	2.15
3 in. and larger	1.95

Freight Rates via Panama—The ocean freight market is very uncertain. It is difficult to secure enough vessels to carry the cargoes offered. An advance of 5c. per 100 lb. is now demanded for shipments from New York and Philadelphia bringing the quotation to 30c. For large lots of steel such as shapes, reinforcing bars, plates wire and similar products the rates to Pacific Coast points are as follows: From Bethlehem, 37.5c.; Chicago, 55c.; Cleveland, 44c.; Coatesville, 40c.; Johnstown, 39.5c.; New York, 30c.; Niles, 43c.; Philadelphia, 30c.; Pittsburgh, 46c.; Steubenville, 41c.; Wheeling, 41c.; Youngstown, 43c.

Wire—Foreign business is the life of the market; it is estimated that 80,000 tons are wanted for export. Most of this is barbed wire. Plain wire, is $1.40 to $1.45; galvanized wire, $1.80 to $1.85; painted barbed wire, $1.60 to $1.65; galvanized barbed wire, $2 to $2.05; galvanized staples, $2, and polished staples, $1.60. All these prices are per hundred pounds for large lots in the Pittsburgh market.

Old Material—Business shows little improvement but prices are better. These have not been established so much by actual transaction as by quotations named on hoped for business. It is recognized that those having scrap for sale at first hand are unwilling to dispose of their supplies at the old low quotations, and somewhat higher figures have been made, without inducing any business. In New York the demand shows an improvement and quotations per net ton are as follows:

	Per Net Ton
Heavy-melting steel scrap	$7.25 to $7.50
Pipes and flues	7.00 to 7.25
No. 1 railroad wrought	8.75 to 9.25
Stove plate	7.50 to 8.00
Malleable cast	7.00 to 7.50
No. 1 machinery cast	9.75 to 10.25
No. 1 yard wrought, long	8.25 to 8.75
Wrought turnings	5.50 to 6.00

The Chicago market reports little or no demand but there is some hope for an improvement. Quotations are from 25 to 50c. per ton higher than a month ago.

	Per Gross Ton
Heavy-melting steel scrap	$8.75 to $9.00
	Per Net Ton
No. 1 railroad wrought	$8.25 to $8.75
No. 2 railroad wrought	7.50 to 8.00
No. 1 cast scrap	9.25 to 9.50
Pipes and flues	6.25 to 6.75
Agricultural malleable	7.25 to 7.50
Railroad malleable	8.00 to 8.25

In Pittsburgh the demand shows an improvement and there is hope for much better business after the first of the year. Heavy melting scrap has advanced rapidly, and some business has been transacted. Practically all of the quotations given below, which are per gross ton, show an advance compared with last month.

	Per Gross Ton
Heavy-melting steel scrap	$11.25 to $11.50
Re-rolling rails	11.75 to 12.00
No. 1 foundry cast	11.25 to 11.50
Old car wheels	10.75 to 11.00
Machine shop turnings	7.75 to 8.00
Railroad malleable	10.00 to 10.25

Wire Rope—Prices are lower and the new discounts are 47 and 5% from list for galvanized and 55 and 5% for bright. At these discounts the net price of wire rope at the mill is as follows:

Diameter in Inches	Price per Foot		
	Cast Steel	Crucible Steel	Plow Steel
2½	$0.75	$0.90	$1.07
2¼	0.61	0.73	0.86
2	0.47	0.57	0.67
1¾	0.39	0.49	0.58
1½	0.28	0.34	0.40
1¼	0.20	0.24	0.27
1	0.13	0.15	0.18
¾	0.08	0.09	0.11
⅝	0.06	0.07	0.08

Chain—Prices are steady and without change, as follows: These prices are per 100 lb., f.o.b., Pittsburgh:

3/16 in	$7.50	½ and 9/16 in	$3.00
¼ in	4.95	⅝ and 11/16 in	2.90
5/16 in	3.95	¾ and 13/16 in	2.80
⅜ in	3.40	⅞ and 15/16 in	2.70
7/16 in	3.20	1 to 1¼ in	2.60

EXTRAS TO ABOVE LIST PER 100 POUNDS

	For BB	For BBB
3/16-in. and ¼-in	$1.50	$2.00
5/16-in. and larger	1.25	1.75

Freight Rates—The freight rates on finished steel products from the Pittsburgh district, including plates, structural shapes, merchant steel and iron bar, pipe fittings, plain and galvanized wire, nails, rivets spikes, and bolts, black sheets (except planished) chains, etc., are as follows in cents per hundred pounds: Albany, 16; Buffalo, 11; Boston, 18; Baltimore, 14½; Canandaigua, 13½; Cleveland, 10; Columbus, 12; Cincinnati, 15; Chicago, 18; Denver, Colo., 85½; Harrisburg, 14½; Louisville, 18; New York, 16; Norfolk, 20; Philadelphia, 15; Rochester, 11½; Richmond, 20; Scranton, 15; St. Louis, 23; Washington, 14½.

Coke—The output shows a decided improvement compared with last month. For the week ending December 26 the output in the Upper and Lower Connellsville regions was 217,000 tons. Prices show practically no change. Blast furnace coke sells at $1.50 to $1.60 per net ton at oven for prompt shipment, and contracts for the first half, and in some cases throughout the year at $1.75 per net ton. For foundry coke prices are better, prompt shipments being held at $2 while $2.15 to $2.25 per net ton is demanded for contracts.

OILS AND PAINTS

Linseed Oil—Prices are lower. For city raw 50 to 51c. is asked in New York. The usual advance of 1c. per gal. is charged for boiled oil.

Petroleum Products—The year 1915 opened very differently from the previous one; this year there is a surplus of crude product, while last year the situation was entirely changed. For crude petroleum at the wells the following prices are charged: Pennsylvania, Second Sand and Tiona, 1.50; Mercer black and New Castle, $1.07; Kansas and Oklahoma, 55c. California oils, 40c. for 21 to 23.9 gravity; 42½c. for 24 to 26.9

gravity; 45c. for 27 to 28.9 gravity; 55c. for 29 to 30.9 gravity and 60c. for 31 to 32.9 gravity.

Spirits Turpentine—Prices are easier and spot turpentine can be had at 45½c. New York, and at 42¾c. Savannah.

REINFORCING MATERIALS

Bars, Concrete Reinforcing—Prices were advanced $1 per ton in the Pittsburgh market Dec. 29. The new quotation of 1.10c. Pittsburgh applies only to deliveries made during the first quarter. For later deliveries, 1.15c. Pittsburgh is asked. These quotations are the minimum. Prices are as follows:

Size	Cents per Pound		
	Mill Shipments Pittsburgh	*Warehouse Pittsburgh	Delivered from *Warehouse New York
¾-in. and larger	1.10	1.50	1.95 to 2.00
⅝-in.	1.15	1.65	2.00 to 2.05
½-in.	1.30	1.80	2.15 to 2.20
⅜-in.	1.40	1.90	2.25 to 2.30
¼-in.	1.70	2.20	2.60 to 2.65

*Bars from warehouse are cut to desired length without extra charge.

Triangle Mesh—Prices continue without change as follows:

PRICE PER 100 SQ.FT.

Style No.	Cross Sec. Area per Ft. Width	Plain Material		Galvanized	
		Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.	Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.
*4	$0.102	$1.00	$1.23	$1.12	$1.34
5	0.077	0.80	0.97	0.89	1.00
6	0.058	0.63	0.77	0.71	0.84
*7	0.041	0.49	0.60	0.55	0.66
*23	0.170	1.69	2.05	1.88	2.24
24	0.142	1.46	1.77	1.62	1.93
25	0.124	1.29	1.57	1.43	1.71
*26	0.110	1.17	1.42	1.30	1.55
*27	0.085	0.96	1.17	1.07	1.28
28	0.066	0.80	0.97	0.89	1.06
29	0.049	0.66	0.80	0.73	0.87
31	0.261	2.49	3.02	2.76	3.29
32	0.225	2.16	2.62	2.40	2.86
33	0.196	1.93	2.34	2.14	2.55
34	0.146	1.48	1.80	1.64	1.96
35	0.109	1.117	1.42	1.30	1.55
36	0.075	0.87	1.05	0.97	1.15
38	0.380	3.55	4.30	3.93	4.68
*39	0.325	3.05	3.70	3.38	4.03
40	0.283	2.68	3.25	2.97	3.54
41	0.208	2.05	2.48	2.27	2.70
42	0.151	1.55	1.88	1.72	2.05
*43	0.101	1.10	1.34	1.23	1.46

*This material is made in regular widths of 18, 22, 26, 30, 34, 42, 46, 50, 54 and 58 in. Standard lengths in rolls are 150, 250, 300 and 600 ft.

METALS

Copper—The buying movement during December was large. Despite the fact that foreigners bought very little, exports for those two months were about half of normal, and the statistics show an unusual amount of metal going into Italy and Norway, which, on the face, looks suspicious, but may be accounted for by the fact that these countries have bought their electrical supplies and most of their copper wire from Germany, and will now have to make it themselves. This may account for part of the increase. The highest price was reached before Christmas, when 13.50c. was paid in New York. Since that time there has been very little business, not enough to establish quotations, but there is no doubt that a round tonnage could be placed at considerably less, whether as low as 13c. or not, is another question. There is still considerable business to go forward for Russia, and the buying is by no means over. Buying from Great Britain should commence again in a few months, and those in close touch with the copper trade believe the next few months will see much higher prices for the metal. Very little new domestic consumption has been developed in the last month.

Tin—The market has been almost lifeless. Domestic consumers bought sparingly, the tin plate business being small, but there is a prospect that there will be a much better demand for tin plate should the war continue. Prices have been near the 33.50c. level for the entire month. It is unusual for the tin market to fluctuate within such narrow limits. For the present there is sufficient supply on hand to meet any demands likely to occur.

Lead—The market has not maintained its full strength, and a decline of $2 per ton was announced. The price is now 3.80c. in New York, 3.67½c. St. Louis. The supply is more than ample for present demands.

Spelter—A marked improvement has been made both in the price and the demand. In New York spelter is quoted at 5.55 to 5.65c., and in St. Louis at 5.45c.

Miscellaneous Metals—Prices are higher due to the advance in the price of copper. The demand is small. Quotations are as follows for small lots in New York:

Bismuth	$3.75 to $4.00
Brass tubes, iron-pipe sizes:	
½-in.	.17
¾- to 3-in.	.16
3½-in.	.16
4-in.	.17
Brass rods	.14¾
Brass sheets	.15
Solder, half and half guaranteed	.22
Zinc sheets	9 to 9½
Copper sheets, base	.17½
Pig tin (five-ton lots, cash)	.34

Old Metals—While the demand shows no improvement, prices are higher. It is significant that the quotations for old metal have by no means fully shared in the advance of ingot copper. Dealers' buying quotations are as follows:

	Cents
Copper, heavy and crucible	11.00
Copper, heavy and wire	10.75
Copper, light and bottoms	9.75
Brass, heavy	8.00
Brass, light	6.25
Heavy machine composition	9.75
Composition turnings	8.50
Lead, heavy	3.30
Zinc scrap	3.90

Antimony—Prices of antimony are most irregular. There was a decline early in December, and later an advance, due to the report that Japanese interests had bought back the contract sold earlier. While the domestic demand is light, there is some buying from makers of munitions of war. For Cookson's, 15 cents is asked. For Hallett's, 14 cents, and for outside brands, 13 cents.

Aluminum—The market is steady. No. 1 ingots are quoted at 19 to 19.50c., New York. Sheet aluminum is quoted at 28c.

CLAY PRODUCTS

Quotations have been withdrawn and no new discounts issued.

MISCELLANEOUS

Rubber—It is evident that the British Government is endeavoring to pile up about 20,000 tons of high-grade rubber, before it will allow American manufacturers to accumulate stock. The market is in fairly good shape. Prices are firm but not high, and at the present quotation of 76c. for Up River Para Fine, there is plenty of margin left for manufacture. For Up River Para Coarse, 58c. is demanded. Ceylon rubber sells at 88c. for sheet and 90 cents for crepe.

Railroad Ties—Business is at a standstill. Prices are exceedingly low, 76c. being quoted for yellow pine ties, 7x9-in. by 8 ft. 6 in., and 64c., 6x8-in. by 8 ft. There is no doubt that a large order from one of the leading trunk lines would bring a certain advance, especially as present prices are 20c. below those current last year, and the ocean freight rates present a considerable problem.

Lighterage Limits—The free delivery or "Lighterage Limits" in New York City are as follows: In Manhattan, from a point opposite the Fort Lee ferry, south along the Hudson River around the Battery and north along the East and Harlem Rivers to the Jerome Ave. Bridge at 155th St. In New Jersey, south from Fort Lee ferry to Bayonne City, points on the north and east shores at Staten Island, between Bridge Creek (Arlington) and Clifton, both inclusive, and including Elm Park, Erastina and Shooters Island. In Brooklyn, from 69th St., Bay Ridge, north to Pot Cove, Astoria, Long Island City.

Explosives—Dynamite of the kind generally used by contractors is approximately 11@13c. per lb., f.o.b. factory, in ton lots. Blasting powder, classified as "soda" grade, is sold at $1.20@1.40 per keg of 25 lb. in lots of 10,000 lb.

Exploders, per hundred, are sold at the following prices: 4 ft., $3.60; 6 ft., $4.10; 8 ft., $4.60; 10 ft., $5.10; 12 ft., $5.60; 16 ft., $6.60; 20 ft., $7.50; 25 ft., $9.40; 30 ft., $12; 36 ft., $14.60.

Caps in lots of 10,000 are $7@8 per thousand.

Blasting machines for 10 holes are $12; 25 holes, $20; 50 holes, $40; 100 holes, $60.

A New High Record in Municipal Expenditure

Statistics compiled by the "Financial Chronicle" show that the sales of municipal bonds in 1914 aggregated $453,000,000. This establishes a new high record, being about 13 per cent. larger than the bond sales in 1913, which was practically a new record. The funds realized from the sales of these bonds were practically all expended in engineering construction and for municipal improvements. The following table shows the sales of bonds during the month of December and for 12 months of a number of recent years.

	Month of December	For the 12 Months
1914	$25,453,650	$453,256,950
1913	43,307,917	396,367,756
1912	27,657,909	386,551,828
1911	36,028,842	396,859,646
1910	36,621,581	320,036,181
1909	31,750,718	339,424,560
1908	28,050,299	313,797,549
1907	13,718,505	227,643,208
1906	21,260,174	201,743,346
1905	8,254,593	183,080,023
1904	9,935,785	250,754,946
1903	13,491,797	152,281,050
1902	11,567,812	152,846,335
1901	15,456,958	149,498,689
1900	22,160,751	145,733,062
1899	4,081,225	118,113,005
1898	7,306,343	103,084,793
1897	17,855,473	137,984,004
1896	10,664,287	106,496,060
1895	8,545,804	114,021,633
1894	13,486,374	117,176,225
1893	17,306,564	77,421,273
1892	3,297,249	83,823,510

The Erie Pump & Equipment Co., Erie, Penn., has recently been organized. This is a consolidation of the Erie Pump & Engine Works, Erie, and the Northern Equipment Co. John A. Dougherty, who for a number of years has been recognized as an unusual designer of centrifugal pumps, is to take charge of the designing. The officers of the company include E. W. Nick, Pres., D. H. Dumond, Vice-Pres., and G. B. Deenschoten, Secy.

RAILWAYS

Maine—Eastern Maine R.R.—This company has filed a petition with the Public Utilities Commission for the approval of the location of the route of its proposed railway from Houlton to Bangor, Maine, about 103 miles.

✚West Virginia—Horse Creek Land & Mining Co.—This company, it is reported, has awarded a contract to BOARD & DUFFIELD, Charleston, W. Va., to construct the first three miles of its railway on Peter Cave Fork, Lincoln County, W. Va. L. E. Poteet, Quarrier St. Bldg., Charleston, is Gen. Mgr. Noted Dec. 17.

Florida—See item under Miscellaneous—Harbor Improvements, Jacksonville, Fla.

✚Minnesota—Minnesota, Dakota & Western Ry.—The MINNESOTA & ONTARIO POWER CO., Minneapolis, Minn., has been awarded a contract by this company for constructing an extension from Littlefork to Craig, about 45 miles.

Kansas—Salina Northern R.R.—This company has been incorporated to construct and operate a railway from Salina to Osborne, Kan., about 80 miles. The incorporators include F. C. York, Saline, F. L. Brown, Sylvan Grove and Thomas F. Brann, Lincoln Center.

Arizonr—Mascot & Western Ry.—This company is preparing to start work soon on the construction of its proposed railway from the mines of the Mascot Copper Co., in the Dos Cabesas district to a point near Kelton, Ariz., about 35 miles. John A. Street, 1611 Harris Trust Bldg., Chicago, Ill., is interested. Noted July 23 and Nov. 26.

California—California Southern Ry.—This company has been incorporated to construct a railway from Blythe Junction through the Palo Verde Valley to Blythe, Calif., about 40 miles. J. M. Neeland, 1003 Los Angeles Investment Bldg., Los Angeles, Calif., is interested.

Quebec—Canadian Northern Quebec Ry.—Surveys are being made by this company for the extension of its railway from Huberdeau to St. Remi, Que., about eight miles. H. K. Wicksteed, Toronto, Ont., in Ch. Engr.

ELECTRIC RAILWAYS

Hartford, Conn.—The Hartford, New Britain & Meriden Ry. Co. has been incorporated to construct an electric railway from a connection with the Connecticut Co. in Hartford to Meriden, Berlin, Newington and Wethersfield. John C. Warnock, Meriden, is interested. Noted Apr. 10, 1913.

Norwich, Conn.—The Connecticut Co. is considering plans for the extension of five of its lines in Norwich. Samuel Anderson, Norwich, is Gen. Mgr.

Torrington, Conn.—The Torrington Traction Co. has been incorporated to construct and operate an electric railway from Torrington to Thomaston, about ten miles. The incorporators include Hosea Mann and George B. Goodwin, Torrington, and Howard Guernsey, Thomaston. Noted Dec. 24.

Haddonfield, N. J.—Plans are being prepared for the construction of an electric traction line from Haddonfield to Berlin, by Frank O. Stein, Berlin, N. J., and associates. A preliminary application for right of way has been made to the Haddonfield Commissioners.

Newark, N. J.—The Board of Works has granted a franchise to the Public Service Ry. Co. for the construction of a line on Roseville Ave., from Orange St. to Bloomfield Ave. R. E. Danforth, Newark, is Gen. Mgr.

Charleston, W. Va.—The Charleston-Dunbar Traction Co. plans to construct about 18 miles of new track this spring. E. W. Alexander, Charleston, is Gen. Mgr. and Pur. Agt.

Columbus, Ga.—The Columbus R.R. Co. has been petitioned to prepare plans for the extension of its lines to Riverdale. John S. Bleeker, Columbus, is Mgr.

New Orleans, La.—Plans are being prepared by the New Orleans Ry. & Light Co. for constructing about 11 miles of new track in New Orleans. M. S. Sloan, New Orleans, is Gen. Mgr.

Paxton, Ill.—Preliminary arrangements are being made by the Kankakee & Urbana Traction Co. for the extension of its line to Paxton. William I. Laffell, Urbana, is Vice-Pres., Gen. Mgr. and Pur. Agt.

Newport, Tenn.—According to press reports a company is being organized to construct an electric railway from Kingsport through Sullivan, Washington, Greene and Cook Counties, to Newport.

✚Almont, Mich.—The Detroit, Almont & Northern Ry. Co. has awarded a contract to FRANK BISHOP, Almont, for the extension to its line from Almont to Imlay City, about nine miles.

Mount Vernon, Ill.—The City Ry. Co. contemplates the construction of a two-mile extension to its line in Mount Vernon. Louis G. Pavey, Home National Bank Bldg., Mount Vernon, is Pres. and Gen. Mgr.

Peoria, Ill.—The Peoria Ry. Co. is preparing plans for double-tracking its line on Jackson St. to the city limits of Peoria. R. W. Bailey, Peoria, is Gen. Supt.

Rockford, Ill.—The Rockford City Traction Co. plans to construct about 50 miles of new track this spring. W. C. Sparks, Rockford, is Gen. Mgr. and Pur. Agt.

St. Louis, Mo.—John A. Robitch, F. Arnold and C. Brenner have applied to the City Council for a franchise to extend the electric railway on Bellfontaine St. from its present loop to the city limits.

Houston, Tex.—The Houston Electric Ry. Co. has applied to the City Council for a franchise to extend its line on San Felipe St. to the city limits. David Daly, Houston, is Local Mgr.

Boise, Idaho—The construction of an electric railway over Blue Mountain from Boise, Idaho, to La Grande, Ore., is contemplated by C. J. Franklin, Boise, E. A. Pack, Weiser, Idaho and J. G. Brown, Galion, Ohio.

Ogden, Utah—Plans are being prepared by the Ogden Rapid Transit Co. for the extension of its line to connect Wellsville, Mendon, Collinston, Deweyville, Honeyville, Garland, Tremonton and Brigham City. P. D. Kline, Ogden, is Gen. Mgr. and Pur. Agt.

Sausalito, Calif.—A. E. Roberts is preparing plans for construction of the proposed incline railway from Sausal to the summit of the heights, 1000 ft. above the city. Not Oct. 22.

London, Ont.—The Hydro-Electric Power Commission h prepared estimates for constructing a hydro-electric railw from London to Tillsonburg. Estimated cost, $892,000. W. Pope, Continental Life Bldg., Toronto, is Secy. of Comn.

Toronto, Ont.—The Toronto Suburban St. Ry. Co. plans construct about 40 miles of new track between Toronto a Guelph. George C. Royce, Toronto, is Secy. and Gen. Mgr.

LIGHT, HEAT AND POWER

✚Boston, Mass.—The Infirmary Trustees of the Public Works Department have awarded the contract for wiring the Long Island nurses' home and two ward buildings to CARLISLE & CONNER, 258 Washington St., Boston, at $10,900 Other bidders were: Edwin C. Lewis, Inc., $13,591; Lord Electric Co., $13,800, and the Clark & Mills Electric Co., $14,166. Thomas A. McQuade is Chn., Infirmary Trustees.

Hartford, Conn.—It is reported that the Billings & Spencer Co., manufacturer of drop forgings and tools, will equip a boiler plant at the factory on Laurel St., recently purchased from the Columbia Motor Vehicle Co.

New London, Conn.—The Trustees of the Connecticut College for Women have had plans prepared for the installation of a heating plant at the college, to cost about $20,000. It is expected that the contract will be awarded at the January meeting of the Board of Trustees. Ewing & Chappell, 101 Park Ave., New York, N. Y., prepared the plans.

Waterbury, Conn.—Bids will be received until Jan. 16, for a boiler house and steam heating plant, to be built on School St., in connection with the new Clark School. Robert C. Kimball, Boston, Mass., is the Engr. Louis A. Walsh, 51 Leavenworth St., Waterbury, is the Arch.

★Binghamton, N. Y.—(Official)—Bids will be received until 2:30 p.m., Jan. 21, by the State Hospital Commission, Capitol, Albany, for heating, plumbing and electric work, and new boiler and stack, for the new building for Chronic Patients at the Binghamton State Hospital. See advertisement under "Contracts To Be Let" in issue of Dec. 31.

★Collins, N. Y.—(Official)—Bids will be received until 2:30 p.m., Jan. 21, by the State Hospital Commission, Capitol, Albany, N. Y., for underground steam connections, etc., for the existing buildings of the Gowanda State Homeopathic Hospital, Collins. See advertisement under "Contracts To Be Let."

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 3 p.m., Jan. 13, by the Board of Trustees of Bellevue and Allied Hospitals, 415 East 26th St., Borough of Manhattan, for additions and alterations to plumbing and gas fitting in the present main building of the Harlem Hospital, 136th and 137th St. and Lenox Ave. Bids will be received at the same time for plumbing, heating and ventilating work for the alterations in the power house and ambulance station of the Harlem Hospital. John W. Brannan, M. D., is Pres., Bd. of Trustees.

New York, N. Y.—(Borough of Manhattan)—The United Electric Light & Power Co., 130 East 15th St., New York, has taken out a permit for the construction of a three-story, 25x100-ft. substation, at 354 West 45th St. It will cost $65,000. W. E. McCoy, 130 East 15th St., is Arch.

★Poughkeepsie, N. Y.—(Official)—Bids will be received until 2:30 p.m., Jan. 21, by the State Hospital Commission, Capitol, Albany, for a motor for laundry at the Hudson River State Hospital, Poughkeepsie. Lewis M. Farrington is Asst. Secy. of the Comn. See advertisement under "Contracts To Be Let."

★Yorktown Heights. N. Y.—(Official)—Bids will be received until noon, Jan. 12, by William B. Osgood Field, Pres., Bd. of Mgrs., New York State Training School for Boys, 2 West 45th St., New York, N. Y., for the heating, plumbing and electric work for seven cottages, and for the construction of a power house and coal pocket for the training school. See advertisement under "Contracts To Be Let" in issue of Dec. 31.

Camden, N. J.—The Victor Talking Machine Co. is receiving bids for the construction of a power plant, estimated to cost $150,000, as a unit of the group of new buildings costing about $1,000,000. The proposed power house will be located at Cooper and Front St.; it will be 100x220 ft., two stories, with a foundation of monolithic concrete. Ballinger & Perrot, Philadelphia, is Engr. in Charge.

Holmesburg, Penn.—Bids will be received until noon, Jan. 12, by R. H. Harte, M. D., Dir., Dept. Public Health and Charities, 584 City Hall, Philadelphia, for the construction of a power plant for the Home for the Indigent, Holmesburg. Philip H. Johnson, 1824 Land Title Bldg., Philadelphia, is Arch. Noted Dec. 3.

✚Lansford, Penn.—The Panther Valley Electric Light, Heat & Power Co., Lansford, has awarded the contract for the construction of a substation to cost about $10,000 to ANDREW BRESLIN, Summithill, Penn. Noted Oct. 29.

Rochester, Penn.—(Official)—Bids will be received until 8 p.m., Jan. 12, by the Board of Directors of the School District of Rochester, for steam heating and mechanical ventilating systems in the new High School building at Rochester. George F. Bauer is Pres. and George H. Karcher is Secy. of the Bd. of Dir.

✚Rockmart, Ga.—The City Council has awarded contracts for new boilers and generators for the municipal electric-light plant to the AMES IRON WORKS, Oswego, N. Y., and the ALLIS-CHALMERS CO., Milwaukee, Wis., respectively. Noted July 30 and Aug. 27.

Louisville, Ky.—Bids will be received until Jan. 14 by the Board of Education for the installation of heating and ventilating equipment in a school building at Sixth and Walnut St. J. Earl Henry is Arch. and Engr.

Louisville, Ky.—It is reported that the Louisville Bridge & Iron Co. has decided to change all of its motors from direct to alternating current, and will soon purchase new motors aggregating several hundred horsepower.

Salem, Ohio—It is reported that the City Council is considering the installation of a municipal electric-light plant to cost about $20,000.

Toledo, Ohio—(Official)—Bids will be received until 10 a.m., Jan. 29, by the Board of Commissioners of Lucas County, for the construction and equipment of a new lighting, heating and power plant for the Lucas County Childrens' Home. E. Bayer, 1530 Nicholas Bldg., Toledo, is Engr. Charles J. Sanzenbacher is Audr. of Lucas County. Noted Oct. 15, 1914.

Saginaw, Mich.—An election will be held, Jan. 11, at which the citizens will vote on the question of issuing $750,000 in bonds, to be used for the construction of a municipal light and power plant. Herman H. Eymer is City Engr. Noted Aug. 13 and Oct. 15, 1914.

Elgin, Ill.—It is reported that a special election will soon be held at which the citizens will vote on the question of issuing $25,000 in bonds to be used for the installation of a municipal electric-light plant. William F. Sylla is City Clk.

Ashland, Wis.—The Ashland Lighting Co. plans to construct an auxiliary steam plant in the west end of the city, and later to build a new gas plant and holder. It is reported that all of this work will be done within the next six months.

Lancaster, Wis.—The Wisconsin Railway Commission has authorized the Lancaster Electric Light & Power Co. to issue $34,700 in stock for the purchase of power and transmission lines between Platteville and Lancaster.

Lamberton, Minn.—The local electric-light plant has been purchased by R. F. Wherland, Redwood Falls, and H. L. Wherland, Faribault. It is reported that the new owners will extend and improve the plant.

Winfield, Kan.—The Electric Light and Water Commission has been authorized by the City Council to install an additional 500-kw. generating unit in the municipal electric-light plant. It is understood that bids will be asked within the next 30 days. W. J. Welfelt is Supt.

Madison, S. D.—The City Council will improve the municipal electric-light plant at a cost of about $20,000. A new engine and generator will be purchased. Edward Rafferty is Supt. of the plant.

Worland, Wyo.—It is reported that plans are being made to rebuild the plant of the Worland Electric Light Improvement Co., which was recently burned. E. G. Ditto, Worland, is Mgr. of the company.

Prairie Home, Mo.—The Town Board has granted a 20-year franchise to Kelly Simmons for the construction and operation of an electric light plant in Prairie Home. The building will be 30x40 ft., and the plant will be of the alternating current type, Fairbanks-Morse, 25-kv.-a., driven by a 25-hp. engine.

Fort Bidwell, Calif.—It is reported that R. R. Rice, H. Dunbar and J. McCosh Smith contemplate the installation of gas plants at Fort Bidwell and Eagleville, Modoc County, Calif.

Brockville, Ont.—The Provincial Hydro-Electric Commission contemplates the construction of an auxiliary power house at Brockville to cost about $4000. W. W. Pope, Continental Life Bldg., Toronto, is Secy. of the Comn.

Kamloops, B. C.—It is reported the city contemplates extensions and improvements to the municipal electric light plant at an estimated cost of $40,000. J. J. Carment is Secy. and Treas.

BRIDGES

+**Concord, N. H.**—The City Council has awarded the contract for the construction of the Pembroke Bridge over the Merrimack River, to the BERLIN CONSTRUCTION CO., Berlin, Conn., at $23,993. The bridge will be 470 ft. long. Noted Nov. 19, Dec. 3 and 10.

Northampton, Mass.—The Commissioners of Hampshire County have had tentative plans prepared for the proposed bridge over the Connecticut River, by John R. Worcester & Co., 79 Milk St., Boston. The cost is estimated at $200,000. Noted Dec. 18, 1913.

Middletown, Conn.—The Board of Selectmen plans to begin work in the early spring on a concrete bridge connecting Middletown with South Farms, to replace the present steel structure. It is reported that the piers of the old bridge will serve for the new one. The bridge will be 68 ft. long and 26 ft. wide. The cost is estimated at from $4000 to $5000. J. M. Lucey is City Engr.

Ballston Spa, N. Y.—The taxpayers of the Town of Ballston have voted in favor of appropriating $6800 for the construction of a new bridge over Mourning Kill. This bridge will be a part of the new state highway to be built from Dunning St. to V. Corners.

★**Wawarsing, N. Y.**—(Official)—Bids will be received until 11 a.m., Jan. 16, by the Town Board of the Town of Wawarsing, Ulster County, at the Town Hall, Ellenville, N. Y., for the construction of a steel highway bridge, 197 ft. long, across Rondout Creek. Silas S. Shurter is Town Supt. of Highways, Town of Wawarsing.

Jersey City, N. J.—The New Jersey & New York Bridge Co. has been incorporated for the purpose of building a bridge by private enterprise over the Hudson River between New York and New Jersey. Before arrangements can be made, however, Hudson, Essex and Bergen Counties, N. J., must cooperate in the plan, and at the present time, Bergen County only has announced itself as in favor of the project. The incorporators of the company are: J. Wilkes O'Neil, mayor of Bergenfield, W. M. Connell and Milton O. Jones, Bergenfield; John D. Holman, Malcolm Mackey, Tenafly; and Thomas Clendinnen, Fort Lee.

Leesport, Penn.—The Board of Commissioners of Berks County has submitted plans for a new reinforced-concrete bridge over the Schuylkill River, between Leesport and Ontelaunee Township, to the State Water Supply Commission for approval. Construction of the bridge will be begun as soon as permission is granted by the Commission. Charles F. Sanders, Reading, is County Engr. D. K. Hoch, Reading, is County Controller. Noted Dec. 17.

+**Morgantown, W. Va.**—(Official)—The County Court of Monongalia County has awarded the contract for the construction of a 150-ft. reinforced concrete bridge at South Morgantown to COLE BROS. INC., 16 St. Paul St., Baltimore, Md., at $53,331. Other bidders were: E. J. Landor, Canton, Ohio, $55,010; H. J. Zevely, Morgantown, $61,509; H. C. Brooks Co. Inc., Martinsburg, W. Va., $63,915; Keeley Bros. & Gilmore, Clarksburg, W. Va., $66,604; Dravo Contracting Co., Pittsburgh, Penn., $67,256; Concrete Steel Bridge Co., Clarksburg, W. Va., $70,913; Farris Bridge Co., Charleston, W. Va., $71,305; Luten Bridge Co., York, Penn., $71,487; John F. Casey Co., Pittsburgh, Penn., $73,457; I. N. Weaver & Co., Morgantown, $87,905. The Monongahela Valley Engineering Co., Morgantown, is Engr.-in-Charge. Noted May 21 and Dec. 17.

Atlanta, Ga.—See item under "Miscellaneous," Fair Buildings.

Knoxville, Tenn.—The Board of Commissioners of Knox County will, it is reported, make an appropriation of $4000 to be used for replacing the present wooden bridges on Straw Plains Pike with reinforced-concrete structures. The Board will also appropriate $4000 for reflooring and repainting the Holston River Bridge.

Columbus, Ohio—(Official)—The Board of Commissioners of Franklin County has rejected all bids received for constructing approaches to the Williams Bridge in Perry, Norwich and Franklin Townships, as being above the Engineer's estimate. John Scott is Clk. of Comrs. Noted Dec. 10.

Delaware, Ohio—Contracts will be awarded about June 1, by the Board of Commissioners of Delaware County, for the construction of five steel bridges with concrete abutments. The estimated total cost is $100,000. Plans are being prepared by F. C. Higley, County Engr.

Toledo, Ohio—The City Council, on Dec. 28, authorized the issue of bonds, and directed the City Engineer to prepare plans for repaving the Fassett St. Bridge with wood blocks, at an estimated cost of $45,000. Noted Dec. 10.

Youngstown, Ohio—Bids will be received until Jan. 14, by the Commissioners of Mahoning County, for the sale of $40,000 in bonds, the proceeds of which will be used for the construction of a bridge across the Mahoning River at West Ave., Youngstown. Frank H. Vogan is Clk. of Comrs.

Ecorse, Mich.—The lowest bid received for the construction of a Scherzer rolling lift bridge over Ecorse Creek was that of the Toledo Bridge & Crane Co., Toledo, Ohio, at about $30,000. Noted Oct. 1 and 22.

★**Chicago, Ill.**—(Official)—Bids will be received until noon, Jan. 14, by John McGillen, Clk. of the Sanitary District of Chicago, Room 700, 910 South Michigan Ave., for the construction of the steel superstructures of two highway bridges over the Calumet-Sag Channel. For further information, see advertisement under "Contracts To Be Let."

Green Bay, Wis.—It is reported that plans have been prepared by A. Braun, City Engr., for a new bascule bridge over the Fox River at Main St., to cost about $170,000. It will be 535 ft. long, steel superstructure and concrete substructure and approaches. The date for receiving bids has not yet been fixed.

Milwaukee, Wis.—The Department of Public Works has been unable as yet to call for bids for the construction of the State-Martin St. Bridge, estimated to cost about $175,000, as no agreement has been made with the property owners for condemning real estate on the east approach in order to straighten the line of the bridge. The necessary appropriation has been available since July 1, and plans have been completed by the City Engineer. F. G. Simmons is Comr. of Pub. Wks. Noted Apr. 9, 1914.

Racine, Wis.—It is reported that bids will be asked about Mar. 15 by the Commissioners of Racine County for the construction of a steel bridge on concrete abutments to be located at Mount Pleasant, Racine County. James Mutter is Highway Comr. of Racine County.

+**Melrose, Minn.**—The Commissioners of Stearns County, St. Cloud, Minn., have awarded the contract for the construction of State Bridge No. 1605 on State Road No. 1, to the M. ADAMS CO., Minneapolis, Minn. Noted Dec. 17.

Topeka, Kan.—Plans are being prepared by A. R. Young, City Engr., for a new reinforced-concrete bridge over Shunganunga Creek at Kansas Ave. The bridge will be about 100 ft. long and 30 ft. wide. The contract for its construction will be awarded soon after the first of the year, with the understanding that the Topeka Ry. Co. will pay one-half the cost, and in return will be permitted to use the bridge when its South Kansas Ave. extension is built.

+**David City, Neb.**—The Board of Commissioners of Butler County has awarded the contract for bridge construction during 1915, to the NEBRASKA CONSTRUCTION CO., Lincoln, Neb.

Kearney, Neb.—It is reported that bids will be received until Jan. 25 by the City Clerk for the construction of a 46-ft. steel arch.

Elk Point, S. D.—(Official)—All bids opened Dec. 24 by the Commissioners of Union County, for county bridge construction during 1915, were rejected, and new bids for the work will be received until Mar. 2. Edward Holden is County Audr. Noted Nov. 5.

+**Beeville, Tex.**—The Commissioners' Court of Bee County has awarded the contract for the construction of a three-span steel bridge over Toro Creek, to AUSTIN BROS., Dallas, at $3950; the contract for a concrete bridge over San Domingo Creek, near Normanna, was awarded to BAILEY MILLS, Victoria, Tex., at $2000.

+**Tulsa, Okla.**—(Official)—The Board of Commissioners of Tulsa County has awarded the contract for the construction of two steel bridges with concrete floors to the OREGONIA BRIDGE CO., Lebanon, Ohio, and Oklahoma, Okla. Bids were received Dec. 7. Noted Nov. 26.

Seattle, Wash.—The Board of Public Works has approved plans for the trestle approaches to the 15th Ave. N. W., Bridge over the Lake Washington Canal. It is reported that bids for their construction will be asked at once. A. L. Valentine is Chn. Bd. of Pub. Wks. Noted Dec. 10.

+Spokane, Wash.—The Board of Public Works has awarded the contract for the construction of a bridge from Sprague Ave. and Hilliard St. over the division freight house of the Northern Pacific Ry. to Division St. and Riverside, to R. T. LAWRENCE, Spokane, at about $20,000.

Portland, Ore.—It is reported that bids will be asked about Jan. 15 for the construction of the Holgate St. Viaduct for the Southern Pacific Co. It will extend from East 18th to East 23d St., and will consist of four 75-ft. steel spans, through girder type, with earth approaches. The estimated cost is $55,000. John R. Hanson is City Engr. Noted July 9, 1914.

+The Dalles, Ore.—The contract for the construction of eight steel swing bridges over the Dalles-Celilo Canal has been awarded to the COWLITZ BRIDGE CO., Yeon Bldg., Portland, at $15,863. Also noted under Federal Government Work.

+Sanger, Calif.—The following bids were received, Dec. 18, by the Board of Supervisors of Fresno County, Fresno, for the construction of a 400-ft. reinforced-concrete bridge over the Kings River above Sanger. A. Techert & Sons, $26,600; Clinton Fireproofing Co., $26,400; W. J. KETTLEWELL & SON, $19,680 (awarded contract); Thompson Bros., $21,900; Mercereau Bridge & Construction Co., $29,450; Johnson Bros., $21,440; Blake Bros., $24,400; Pacific Coast Construction Co., $22,400; Mesmer & Rice, $25,000. Noted Dec. 3 and 10.

+The contract for constructing ten wooden pile bridges over the Kings River was awarded to W. F. JONES, at $10.70 a foot for all bridges. Other bidders were: Parlier Construction Co., $9063; Widley & Yost, nine bridges, $9700; Lovelace Bros., $9777; Thompson Bros., $9810; Johnson Bros., nine bridges, $11,258; Pacific Coast Construction Co., $8780; Mesmer & Rice, $12,597. D. M. Barnwell, Fresno, is County Clk.

+St. Catharines, Ont.—(Official)—The City Council opened the following bids Dec. 8, for the construction of the St. Paul St. High Level Bridge; CANADIAN BRIDGE CO., Walkerville, Ont., $91,420 (awarded contract); Hamilton Bridge Works, Hamilton, Ont., $97,425; Dominion Bridge Co., Montreal, Que., $101,879; McGregor & McIntire, Toronto, $112,012; Canadian Allis Chalmers Co., Toronto, $122,448; Standard Steel Construction Co., Welland, Ont., $133,360. Noted Oct. 8, Nov. 19 and Dec. 24.

+Santo Domingo, Dominican Republic—The Director General of Public Works has awarded the contract for the construction of a steel bridge over the Ozama River at Santo Domingo City, to JOSE TURULL, Santo Domingo City, at $91,237. List of bidders noted Dec. 31.

WATER-SUPPLY—IRRIGATION

+Springfield, Mass.—The contract for c.-i. water pipe and fittings has been awarded by the Board of Water Commissioners to R. D. WOOD & CO., Philadelphia, Penn.

Warwick, R. I.—The town has retained O. Perry Sarle, Engr., Providence, to make an investigation for the construction of a water system. Noted Oct. 29.

+New Britain, Conn.—The contract for pipe for the water department has been awarded to STANDARD PIPE & FOUNDRY CO., Bristol, Penn., at $5900.

Thompsonville, Conn.—A petition to the General Assembly has been filed with the Secretary of State by the Thompsonville Water Co. for permission to build dams across streams in the towns of East Granby, Enfield, East Windsor and Somers. H. R. Cooper is Supt. Noted Jan. 1, 1914.

Albany, N. Y.—W. Greenlach, Comr. of Pub. Wks., has recommended the installation of water meters for the entire system.

Barker, N. Y.—At an election held recently the property owners voted in favor of issuing $30,000 in bonds, the proceeds of which will be used for the installation of a water system. Noted Aug. 6.

New York, N. Y.—(Borough of the Bronx)—(Official)—Bids were received by the Department of Water Supply, Gas and Electricity for dismantling and transporting one pumping engine from the Baldwin Station to the 179th St. Station, and reërecting it, including foundations, as follows: Almirall & Co., $7317; Henry E. Fox Contracting Co., $7900; Frank I. Eisinger, $7953; McHarg & Barton Co., $8272; and Christopher Nally, 710 Columbus Ave., New York (low bidder) at $6875.

New York, N. Y.—(Official)—Bids will be received by the Board of Water Supply, Municipal Bldg., Manhattan, until 11 a.m., Jan. 19 for Contract 162, for 8000 squares of face cutting of stones for Kensico dam. Charles Strauss is Pres.

+Newark, N. J.—The city has awarded the contract to P. H. & J. CONTON at about $5000 for constructing a tank and tower at the new city almshouse at Ivy Hill. Noted Nov. 19.

Pittsburgh, Penn.—(Official)—Bids will be received until 10 a.m., Jan. 8, by the City Controller for a boiler feed pump, heater and appurtenances for the Herron Hill Pumping station under Contract No. 2-E for the Bureau of Water. Robert Swan is Dir. Dept. of Pub. Wks.

+Baltimore, Md.—The contract for c.-i. pipe and specials for the water department has been awarded to WARREN FOUNDRY & MACHINE CO., Phillipsburg, N. J., at $157,643.

+The contract for calcium hypochlorite for treating water in the reservoirs has been awarded to THOMSEN CHEMICAL CO., Baltimore, at $9765.

Chestertown, Md.—The Water Board plans to build an elevated tank, estimated to cost $25,000. Hugh Downing, Dover, Del., is Engr.

Laurel, Md.—Bids will probably be received in January for making extensions to the water system and for installing a filtration plant. Harry Stevens, Union Trust Bldg., Washington, D. C., is Engr. H. S. Phelps is Clk. Noted June 4.

Clarksburg, W. Va.—(Official)—The city plans to install a new high lift pump and to build a storage dam for the water system this year. Scotland G. Highland is Secy. and Gen. Mgr.

Asheville, N. C.—(Official)—The city plans to lay 6000 ft of 10-in. water mains in College St. to intersect with the water main for Grove Park Section. William Francis is Supt.

North Augusta, S. C.—The North Augusta Water & Gas Co. has been incorporated by W. R. Dawson and C. R. Dawson, with a capital of $50,000.

Jacksonville, Fla.—See item under "Miscellaneous," Harbor Improvements.

Tampa, Fla.—According to press reports plans have been prepared by C. C. Whitaker, Engr., Atlanta, Ga., for the construction of a reinforced-concrete reservoir for the Tampa Water Works Co. The estimated cost is $40,000. Noted July 16.

Marion, Ky.—(Official)—Bids will probably be received about Feb. 1 by the Marion Water & Ice Co. for the construction of a water system. Noted Dec. 17.

Cleveland, Ohio—(Official)—Bids were received Dec. 24 for two 100,000-gal. and one 60,000 gal. low-lift steam-turbine reduction-gear driven centrifugal pumps at the Division Ave. pumping station: Dravo Doyle Co., Pittsburgh, Penn., $129,667, alternate bid, $134,750; and Allis-Chalmers Mfg. Co., Milwaukee, Wis., $129,950.

+The contract has been awarded to R. D. WOOD & CO., Philadelphia, Penn., at $25,545, for fire hydrants and sluice gates for the Department of Water. Bids opened Dec. 18. Noted Dec. 17.

Coshocton, Ohio—A resolution has been passed by the City Council declaring it necessary to construct a 3,000,000-gal. reservoir hill. Chester & Fleming, Union Trust Bldg., Pittsburgh, Penn., are the Engrs. Noted July 16 and Dec. 24.

Fostoria, Ohio—The City Council has decided to build a reservoir, a softening plant and a filtration plant. Charles A. Latshaw is City Engr. Noted Sept. 17.

Toledo, Ohio—The William J. Sherman Co., Nasby Bldg., Toledo, has submitted plans for the high-pressure pumping station. The plant will be located near the Cherry St. bridge. The estimated cost is $175,000. Noted July 9.

+★Chicago, Ill.—(Official)—The contract for constructing Section 1 of the Wilson Ave. water tunnel has been awarded by the City of Chicago to FITZSIMMONS & CONNELL DREDGE & DOCK CO., 10 South La Salle St., Chicago, at $403,179. List of bids noted Dec. 17.

+Kansas, Ill.—The contract for constructing a distributing system has been awarded to T. A. HARDMAN, Olney, at $8352. C. L. James, Mattoon, is Engr.

+Rock Island, Ill.—The contract for laying water mains in a number of streets has been awarded to P. F. TRENKENSCHUH, at $13,735.

Antigo, Wis.—It is reported that the Wolf River Improvement Co. intends to push work on its reservoir project during the spring and summer. Plans call for a concrete dam, 26 ft. high in the town of Ainsworth, to flood 18,000 acres, and a 20-ft. concrete dam in the town of Elcho to flood 19,500 acres. Both dams are to be equipped with gates for regulating the flow into Fox River and Winnebago Lake.

Pretty Prairie, Kan.—An election will be held Jan. 18 to vote on the question of issuing bonds for $17,000, the proceeds of which will be used for the installation of a water system. Rollins & Co., Kansas City, Mo., is preparing plans. Noted Dec. 24.

Harlowton, Mont.—(Official)—Plans are being prepared by the Garharz-Jaqueth Engineering Co., Great Falls, for the construction of a water system. The plans will not be ready before Feb. 1. Noted Aug. 13 and Dec. 17.

Kansas City, Mo.—According to press reports the Fire and Water Board is in the market for 1400 tons of 6-, 8- and 12-in. c.-i. pipe. John Donnelly is Pres. of the Bd.

+Little Rock, Ark.—The contract for building a brick superstructure over its present plant has been awarded by the Arkansas Water Co. to CRAWFORD-WILLIAMSON CONSTRUCTION CO., Memphis, Tenn., at $20,000. Noted Feb. 26, 1914.

+Big Spring, Tex.—The contract for laying about 25,000 ft. of water mains has been awarded to E. L. DALTON, Dallas, Tex. Noted Dec. 3.

Denton, Tex.—An election will be held, Feb. 2, to vote on the question of issuing $114,000 in bonds, the proceeds of which will be used for making extensions to the water and light systems, constructing school buildings, for fire department apparatus and for street improvements.

Mission, Tex.—The City Commission contemplates calling an election in February to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a water system and electric-light plant. Willard Ferguson is Mayor.

★Sweetwater, Tex.—(Official)—Bids will be received until 2 p.m., Jan. 20, by the City of Sweetwater, for erecting a 250,000 gal. cylindrical steel stand pipe, 28 ft. in diameter and 60 ft. high. George T. Wilson is Mayor. Noted Dec. 10.

★(Official)—Bids will be received until 2 p.m., Jan. 20, by the City of Sweetwater for the construction of a 12-in. c.-i. gravity conduit from Lake Trammell to Sweetwater. The estimated cost is $16,000. Plans are on file with W. H. Bartlett, City Secy. Noted Dec. 10.

Guthrie, Okla.—An election will be held Jan. 14 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for making extensions to the municipal water system. J. E. Niscley is Mayor.

Oklahoma, Okla.—An election will be held Jan. 15 to vote on the question of issuing $240,000 in bonds, the proceeds of which will be used for the construction of reservoirs. Guy V. McClure is City Engr. Noted Nov. 5.

Payette, Idaho—(Official)—W. C. Sturdevant, City Engr. informs us that the bond issue for the construction of a filtration plant was defeated at the November election and not carried as was erroneously noted Dec. 17.

Grandview, Wash.—Bids will be received until Jan. 12 by the Grandview Irrigation District for the purchase of $67,000 in bonds, the proceeds of which will be used for the construction of an irrigation system.

Port Townsend, Wash.—Bids will be received about Jan. 9 by George Anderson, City Clk., for placing a c.-i. pipe line across and under the canal at the head of Port Townsend Bay.

Milwaukee, Ore.—The Council has passed an ordinance authorizing the construction of a water main to the limits of Portland to connect with the Portland water system. Noted May 21.

+Oroville, Calif.—The contract for excavating four miles of the irrigation canal of the Feather River Canal Co. has been awarded to DANIEL BAYLESS, Biggs.

Sacramento, Calif.—Charles G. Hyde has been recommended by Frank C. Miller, City Engr., and others, to prepare plans for the construction of a chlorinating plant. Noted July 2.

Montreal, Que.—The contract has been readvertised and bids are being received until Jan. 12 by the Board of City Commissioners for constructing the Elgin Basin pumping station. L. N. Senecal is Secy.

Victoria, B. C.—According to press reports the City Council has raised $130,000 to be used to commence the construction of the Sooke Lake water project. Du Cane & Dutcher, Rogers Bldg., Vancouver, are the Consult. Engrs. Noted Nov. 26.

Athens, Greece—(Official)—Bids will probably be received until Mar. 15 for the construction of a water and a sewer system for Athens and the Piraeus. Specifications are on file with the Department of Commerce, Washington, D. C. S. Schliemann is the diplomatic representative of Greece to this country, located at Washington, D. C.

SEWERS

Boston, Mass.—Bids will be received until Jan. 12 by the Public Works Department for constructing drains in four streets. L. K. Rourke is Comr.

+Westfield, Mass.—The contract has been awarded to C. C. GAMEWELL, Pittsfield, Mass., for constructing $10,000 ft. of vitrified sewer pipe from 6- to 24-in. pipe, at 79% of standard.

Stamford, Conn.—Bids were received as follows for the construction of a sewage disposal plant: F. N. Lewis, New York, N. Y., $69,315; Suburban Engineering Co., New York, N. Y., $71,304; Young & Hyde, New York, N. Y., $75,808; Harris Construction Co., Stamford, $84,595; Daly & Merritt, Port Chester, N. Y., $86,786; and W. B. Eyrich, Grantwood, N. J., $92,018; James C. Harding, 170 Broadway, New York, N. Y., is Engr.

Buffalo, N. Y.—(Official)—Bids will be received until 11 a.m., Jan. 12, by Francis G. Ward, Comr. of Pub. Wks., for constructing sewers in the following streets: Dutton, Angle, Health St., Woodside and Potters Rd., Evelyn, Eckhert, Newfield and Newburg St. Noted Dec. 10.

Jersey City, N. J.—The State Board of Health, Trenton, has ordered the city to construct sewage disposal works to be completed during 1915. Henry Byrne is Dir., Dept. of Sts. and Pub. Impvts Noted Dec. 24.

+★North Plainfield, N. J.—(Official)—The contract for constructing, under Contract 1, the outfall sewer, has been awarded by the Borough of North Plainfield to HARRISON & BURTON, 220 Broadway, New York, N. Y., at $72,598, and the contract for constructing a collecting system under Contract 2 has been awarded to FRANK PUGLIA, Paterson, at $70,817. List of bids noted Dec. 31.

★Paterson, N. J.—(Official)—Bids were received Dec. 29 by the Passaic Valley Sewerage Commissioners for constructing Section 17 of the Central Portion of the Main Intercepting sewer as follows: New York & New Jersey Construction Co., Newark, $179,531 (low bidder); Litchfield Construction Co., Brooklyn, N. Y., $181,333; Harrison & Craig Co., Newark, $199,364; Merrill-Ruckaber Co., New York, N. Y., $201,184; Culp Co., Inc., Paterson, $222,116; Cauldwell-Wingate Co., New York, N. Y., $236,983; and Arthur McMullen, New York, N. Y., $281,492. Noted Dec. 2.

Rahway, N. J.—The Common Council has purchased property on Haydock St. as a site for a sewage disposal plant. Noted Nov. 12.

Allentown, Penn.—The Council has purchased a site near the city and plans to build a sewage disposal estimated to cost $100,000. Charles D. Weirbach is City Engr.

Parkesburg, Penn.—Bids will be received about Mar. 1, by George Mullen, Secy. of the Council, for a sewer system and sewage disposal plant. The estimated cost is $25,000. F. H. Shaw, Lancaster, is Engr. Noted Dec. 17.

Columbia, S. C.—Bonds have been voted by the citizens, the proceeds of which will be used for the extension of the sewer system. L. A. Griffith is Mayor.

★Augusta, Ga.—(Official)—See item under "Miscellaneous," Levee, also advertisement under "Contracts to Be Let."

Vineville (Macon post office), **Ga.**—A sewer system will be constructed through the property of the Suburban Realty Co. C. A. Caldwell, Georgia Academy for Blind, is Engr. The estimated cost is $12,000. Noted Oct. 8, under Macon.

Birmingham, Ala.—The Board of Commissioners has adopted an ordinance authorizing the construction of sanitary sewers in the vicinity of East Woodlawn and Gate City at an estimated cost of $21,000, and for sewers in Enon Ridge at an estimated cost of $12,000. Julian Kendrick is City Engr.

★+Canton, Ohio—(Official)—The contract for constructing the main sewer to the new sewage disposal plant has been awarded to JOHN F. CASEY CO., Pittsburgh, Penn. Item bids will appear in a future issue. Noted Nov. 5.

Dayton, Ohio—Press reports state that the City Commission contemplates issuing $40,300 in bonds for constructing sewers in Berm, Grafton, Norman and Wyoming St., and Burton Ave.

Oakwood, Ohio—Press reports state that bids will be received until Jan. 23, by the Village Clerk, for the sale of $21,000 in bonds for sewer work.

Cadillac, Mich.—At a recent election the citizens voted in favor of issuing $65,000 in bonds for a sewage disposal plant. Noted Dec. 17.

Green Bay, Wis.—Plans are being prepared by A. Brauns, City Engr., for the construction of about 1100 ft. of trunk sewers in the spring.

+Cherokee, Iowa—A contract for constructing an extension to the sanitary sewer system has been awarded to ARTHUR A. DOBSON, Lincoln, Neb.

Lenox, Iowa—Plans are being prepared by Theodore S. De Lay, Creston, Iowa, for a sewer system to be constructed during 1915.

Duluth, Minn.—Press reports state that the City Council has approved the plans for the sanitary sewer system to be constructed in New Duluth and Gary, estimated to cost $153,000. The first section will be constructed this winter and will cost $35,000. John Wilson is City Engr. Noted Dec. 10.

Sandstone, Minn.—Bids will be received by the Village Recorder until Jan. 18, for constructing sewer system.

Roundup, Mont.—The City Council has accepted and approved of plans prepared by C. A. Renshaw, Engr., for a sewer system for the city. Bonds for the improvement have been sold, and bids for work will be called in February. Noted Sept. 1 and Oct. 29.

+Blytheville, Ark.—It is reported that a contract for sewer work has been awarded to A. C. BROOKS, Birmingham, Ala., at $54,200.

Harrison, Ark.—An election will be held Feb. 22 to vote on the question of issuing $90,000 in bonds for installing a sewer system. A. C. Moor, Joplin, Mo., is Engr. Noted Nov. 5.

Pueblo, Colo.—(Official)—See item under Streets and Roads.

Aberdeen, Wash.—Plans are being prepared by Lewis D. Kelsey, City Engr., for the construction of trunk sewers in Sumner, Jeffries, Martin, Duffy and other streets, estimated to cost $40,000.

+Seattle, Wash.—A contract for constructing a sewer in Eli Ave. has been awarded to L. COLLUCCIO, 1642 Lane St., at $20,879. Noted Dec. 24.

Corning, Calif.—A special election will be held Jan. 12 to vote on the question of issuing $24,000 in bonds for extending the sewer system.

El Centro, Calif.—The City Council contemplates constructing a sewer system. F. H. Olsmtead, Los Angeles is Engr.-in-Charge.

Hayward, Calif.—The citizens of Ora Loma District will vote Jan. 16 on the question of issuing $62,000 in bonds for sewerage construction.

Stockton, Calif.—(Official)—E. C. Grunsky, Engr., San Francisco, advises us that he is about to submit plans for the extension of the sewer system and for the construction of a sewage disposal plant. Noted Dec. 24.

London, Ont.—The City Council has authorized work to be started at once on additional storm and sanitary sewers, estimated to cost $14,000. H. A. Brazier is Engr.

Stratford, Ont.—Plans and estimates have been submitted by A. B. Manson, City Engr. for constructing a main sewer from the sewage disposal plant to Romeo St., estimated to cost $70,000.

Toronto, Ont.—A by-law has been passed by the York Township Council for the construction of sewers in Oakwood and Conway St., estimated to cost $8000 and $3000, respectively. J. Barber, 57 Adelaide St., Toronto, is Engr. and W. A. Clarke, 40 Jarvis St., is Township Clk.

Athens, Greece—See item under "Water Supply—Irrigation."

GARBAGE

+Rutherford, N. J.—The city has awarded the contract for the removal of garbage and ashes for a period of three years to MICHAEL DONOVAN, Bayonne, N. J., at $14,000.

+Aspinwall, Penn.—The Boro Council, Dec. 21, awarded the contract for the collection and disposal of garbage for a period of five years to WALKER, STRATMAN CO., Pittsburgh, at $12,425.

Columbus, Ga.—Mayor John C. Cook, in his annual message, recommended the construction of a garbage disposal plant.

Miami, Fla.—The city will build a destructor plant under the supervision of B. H. Klyce, City Engr. Excavation and concrete work will be sublet. The estimated cost is $16,000. Noted Nov. 5.

Baton Rouge, La.—The city is considering several sites upon which to construct the proposed garbage incinerator. The superintendent of the Nye Odorless Cremator Co., it is reported, is assisting the commissioners in selecting the most suitable location.

Chicago, Ill.—Local press reports state that the city contemplates an issue of $750,000 in bonds for the construction of a garbage disposal plant.

Longbeach, Calif.—(Official)—Mayor Louis N. Whealton writes that the city is trying to solve the problem of garbage disposal.

STREETS AND ROADS

+Boston, Mass.—The contract for building a macadam roadway in Intervale St. from Columbia Rd. to Normandy St. has been awarded to J. C. COLEMAN & SONS CO., at $6442. Noted Dec. 24.

According to press reports, the City Council contemplates repaving a large portion of Albany and Tremont St. and also to pave Dorchester Ave. with wood blocks. L. K. Rourke is Comr. of Pub. Wks.

Providence, R. I.—(Official)—Bids were received Dec. 28 by the Board of Contract and Supply for paving, as follows: (A) Broad St., (B) Messer St., (C) Knight St., (a) asphalt, (b) bitulithic: Narragansett Improvement Co., (A) (a) $117,373, (B) (a) $18,656, (C) (a) $14,712; Borough Asphalt Co., (A) (a) $119,980, (b) $118,937, (B) (a) $19,260, (b) $19,073, (C) (a) $15,243, (b) $15,097; Daniel O'Connell's Sons, (A) (a) $138,149, (B) (a) $22,685, (C) (a) $17,897; Warren Bros. Co., (A) (b) $118,892, (B) (b) $19,631, (C) (b) $15,568. Noted Dec. 24.

Woonsocket, R. I.—The Committee on Streets and Roads has rejected all bids for paving Pond St. New bids will be called for later. F. A. Mills is City Engr. Noted Dec. 10.

Hartford, Conn.—Bids were received by the State Highway Commission Dec. 31, as follows:

East Lyme Township (Niantic post office)—About 4344 lin.ft. of (a) special gravel, (b) native stone macadam, (c) 8-in. gravel, on the Niantic-Blackhall Highway: A. D. Bridges Sons, Inc., Hazardville, Conn., (a) $8365, (b) $12,362, (c) $10,189; A. B. Caldwell, New Britain, Conn., (a) $8297, (b) $13,194, (c) $10,864; Board of Selectmen, Town of East Lyme, F. A. Beckwith, Chn., Niantic, Conn., (a) $9498; Bryan F. Maham, New London, Conn., (a) $10,174, (b) $14,700, (c) $11,052; John Arborio, 172 Congress Ave., New Haven, Conn., (a) $10,513, (b) $14,361, (c) $11,392.

Greenwich Township—Construction of an earth fill on the Boston Post Rd.: Daly & Merritt, Port Chester, N. Y., $3783; Charles A. R. Bruno, 217 Charles St., Bridgeport, Conn., $5049; Angelo Roina, Greenwich, Conn., $3767; Joseph Christiano, Greenwich, Conn., $4134; T. F. Foley & Co., South Norwalk, Conn., $4720; C. E. Williams, New Milford, Conn., $4405.

Norwfch Township—Resurfacing about 3177 lin.ft. of highway on West Town St.: William B. Wilcox, Norwich, Conn., $6401.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received by L. H. Pounds, Pres. of the Borough, until 11 a.m., Jan. 13, for improving Avenue C from Gravesend Ave. to West St., Dumont Ave., East 15th St. from Avenue O to Kings Highway, West St. from Church Ave. to 39th St., 15th Ave. from 40th to 42d St., 45th St. from 13th to 14th Ave., 50th St. from 13th to 14th Ave., 67th St. from 14th to 15th Ave., 70th St. from 13th to 15th Ave. and 71st St. from Fort Hamilton Parkway to 10th Ave.

Hackensack, N. J.—Bonds for $25,000 were sold Dec. 30, the proceeds of which will be used for improving roads.

Newton, N. J.—The Board of Freeholders is negotiating with the State Road Commissioner for the adoption of the following specifications for the proposed improved road from Newton to Ogdensburg: 24-ft. roadway, with macadam roadway 12-ft. wide.

Perth Amboy, N. J.—The City Council has authorized the preparation of an ordinance providing for the paving of Front St., from Fayette to Market St., with belgian blocks.

Latrobe, Penn.—Bids will be received by the Commissioners of Westmoreland County until Jan. 11 for the sale of $250,000 in bonds for road improvements.

Wilmington, Del.—The City Council will grade 10th, 11th and King St. at an estimated cost of $25,000.

Pittsboro, N. C.—At an election recently held, the citizens voted in favor of issuing $20,000 in bonds for roads in Haw River Township.

+Quitman, Ga.—A contract for paving has been awarded to C. A. COLLACOT, Chattanooga, Tenn., at $35,000. Noted Sept. 24.

Brooksville, Fla.—Bids will be received by the County Commissioners until Jan. 9 for the purchase of $300,000 in bonds for highway construction.

+St. Augustine, Fla.—Press reports state that the contract for paving Cincinnati Ave. has been awarded to SETH PERKINS & SONS. Noted Dec. 10.

+Tampa, Fla.—The contract for paving Massachusetts Ave. and Park St. with brick has been awarded to the EDWARDS CONSTRUCTION CO.

+Columbiana, Ala.—A contract for grading and draining the road from Vandiver, Shelby County, to the Jefferson County line, has been awarded by the Commissioners of Shelby County to ISAAC ELLARD, Birmingham, Ala., at $6542. Noted Dec. 10.

Vernon, Ala.—Press reports state that the citizens of Lamar County voted in favor of issuing $75,000 in bonds for constructing roads. Noted Dec. 10.

Collins, Miss.—According to press reports, the Board of Supervisors has authorized $16,000 in bonds for roads.

Alexandria, La.—Press reports state that the citizens of Rapides Parish Road District No. 2 will vote Jan. 19 on the question of issuing $100,000 in bonds for road construction.

New Orleans, La.—(Official)—Bids will be received by the Highway Department of the Board of State Engineers, Room 104, New Orleans Court Bldg., until noon, Jan. 30, for constructing the Baton Rouge-Clinton, Baton Rouge-Greensburg and Baton Rouge-St. Francisville Rd. W. E. Atkinson is State Highway Engr.

Johnson City, Tenn.—At an election held Dec. 12 the citizens voted in favor of issuing $30,000 in bonds for road improvements.

Barbourville, Ky.—The citizens of Knox County will hold an election, Mar. 15, to vote on the question of issuing $200,000 in bonds for road construction.

Niles, Ohio—Arrangements are to be made for paving Mason, Wood, Girard, Erie, Maple, Neal, Mill, Water, Third, Holford and Federal St. early in the spring.

Painesville, Ohio—At a recent election the question of issuing $10,000 in bonds for street paving was defeated.

Salem, Ohio—Plans will be submitted by D. M. French, City Engr., to the City Council, for the improvement of West Dry St.

Tiffin, Ohio—The City Council contemplates paving a portion of Wentz, Coe and West Market St. with brick on a crushed stone foundation. J. J. Oberlander is City Engr.

+Newcastle, Ind.—(Official)—A contract for constructing a county line highway has been awarded by the Commissioners of Henry, Fayette and Rush Counties to HOPPES & JOHNSON, Anderson, Ind., at $13,864. Noted Dec. 10.

+South Bend, Ind.—A contract for constructing a gravel road in Penn and Portage Townships has been awarded by the Commissioners of St. Joseph County to HOMER SHORT, North Judson, Ind., at $7835.

Rock Island, Ill.—Press reports state that the Board of Local Improvements has decided to pave 18th Ave. with brick instead of asphalt. The estimated cost is $26,000.

New London, Wis.—Press reports state that the City Council contemplates an expenditure of $30,000 for street improvements.

Prairie Du Chien, Wis.—The City Council has voted to pave a portion of Bluff St.

Lincoln, Neb.—Press reports state that plans are being prepared for paving Holdredge St. with asphalt. Theodore H. Berg is City Clk.

Hardin, Mont.—According to press reports, plans have been completed for street paving in District No. 2, estimated to cost $40,000.

Chillicothe, Mo.—The City Council has ordered the repaving of a section of South Locust St.

+Kansas City, Mo.—The contract for paving 27th St. from Lister to Van Brunt St. with concrete has been awarded to the TYNER CONSTRUCTION CO., at $10,207.

Devall Bluff, Ark.—Bonds for $60,000 have been sold, the proceeds of which will be used for roads in Prairie County Road Improvement District No. 1.

Bay City, Tex.—Bids will be received by the County Judge until Jan. 11 for the sale of $30,000 in bonds for constructing and improving roads in Road District No. 1.

Belton, Tex.—According to press reports, bids will be received by the Commissioners Court of Bell County until 10 a.m., Jan. 13, for the sale of $105,000 in bonds for constructing and improving roads in Road District No. 7. W. E. Hall is County Audr.

Boerne, Tex.—At the election held Dec. 18, the citizens voted in favor of issuing $25,000 in bonds for constructing roads in Precinct No. 1.

Corpus Christi, Tex.—According to press reports an election will soon be held to vote on the question of issuing $100,000 in bonds for street paving.

+Dallas, Tex.—The contract for paving South Pearl St. from Elm to Taylor St. has been awarded to ROACH-MANIGAN PAVING CO. at $40,00.

El Paso, Tex.—Press reports state that the City Council contemplates an expenditure of $53,450 for brick paving.

Mission, Tex.—The City Commission is receiving bids for the construction of about 18,000 lin.ft. of concrete sidewalks, gutters and curbs, the cost of which will be about $30,000.

+San Antonio, Tex.—The contract for paving Woodlawn Ave. from Houston St. to the Fredericksburg Rd. has been awarded to the TEXAS BITULITHIC CO., Dallas.

Waco, Tex.—Press reports state that an election will be held Jan. 22 to vote on the question of issuing $15,000 in bonds for paving streets.

Wharton, Tex.—Press reports state that bonds for about $275,000 have been sold, the proceeds of which will be used for constructing roads in District No. 1, Wharton County.

Pueblo, Colo.—(Official)—We have been advised by D. R. Gaymon, City Engr., that the city contemplates spending $185,000 for improving the Mineral Palace Paving District by paving, curbing and constructing sewers.

Bonners Ferry, Idaho—Bids will be received by the Board of County Commissioners until Jan. 13 for constructing a section of road No. 48 in Road District No. 28. R. S. McCrea is Clk.

Davenport, Wash.—The Commissioners of Lincoln County contemplate an expenditure of $46,000 for road work in the spring.

Montesano, Wash.—Press reports state that the Commissioners of Chehalis County contemplate an expenditure of $335,000 in the spring for constructing highways.

Prosser, Wash.—The construction of the Kennewick-Finley Rd. has been postponed indefinitely by the County Commissioners. Noted Dec. 3.

+Bandon, Ore.—A contract for grading, paving and constructing sidewalks and gutters has been awarded to W. H. WEBB at $11,900.

Manhattan Beach, Calif.—Bids will be received until 7:30 p.m., Jan. 20, for improving Eighth St. M. M. Murray is City Engr.

+Ontario, Calif.—THE HIGHWAY CONSTRUCTION CO., San Bernardino, has been awarded the contract at $58,138.58 for improving Euclid Ave. between G St. and the north city limits. Noted Dec. 10 and 24.

+Sacramento, Calif.—The State Highway Commission has awarded contracts for the construction of State highway as follows: Colusa County, between Williams and Colusa, 8.4 miles, to C. W. CROSS, Oakland, Calif., at $55,061; in Siskiyou County, between Hornbrook and Yreka, 16.9 miles, to E. T. JOHNSON, Portland, Ore., at $90,522; in Orange County, from San Juan Capistrano to Galivan, 5.5 miles to the M. R. CONSTRUCTION CO., Los Angeles, Calif., at $35,830; Los Angeles County, between Section 17 and the Liebre Mountain, 14.5 miles, to the LEE MOOR CONSTRUCTION CO., Los Angeles, Calif., at $281,646, this contract to be completed within 150 days. Noted Dec. 3 and 31.

+San Diego, Calif.—J. E. CLOUSE has been awarded the contract at $9911.75 for improving Pescadero St. from De For to Santa Barbara St.

+San Francisco, Calif.—A contract for paving the Great White Way has been awarded to the BLANCHARD-BROWN CO. at $59,156.

✚San Francisco, Calif.—Contracts have been awarded for paving San Bruno Ave. from Steuben St. to Oakdale Ave. to the FEDERAL CONSTRUCTION CO., at $38,658 and Fifth Ave. from Fulton to Geary St. to F. R. RITCHIE & CO., at $12,000.

✚Tulare, Calif.—The City Trustees have awarded a contract for paving 17 blocks to the FEDERAL CONSTRUCTION CO., San Francisco, at $90,494.

Point Grey, B. C.—The lowest bid received for paving University Ave. was that of Ledingham & Cooper, at $23,570.

Saanichton, B. C.—According to press reports work will soon be started on road improvements, estimated to cost $30,000. Hector S. Cowper is City Clk.

INDUSTRIAL WORKS

✚Cambridge, Mass.—The contract for the construction of a two-story, 50x100-ft. factory at Hamilton St., for the Boston Surburban Real Estate Co., Old South Bldg., Boston, has been awarded to H. E. SNOW, 169 Western Ave., Cambridge.

Olneyville, R. I.—The J. & K. Worsted Co., Providence, will construct a one-story, 62x272-ft. mill, on Hartford Ave. John H. Jones is Pres.

✚Bridgeport, Conn.—The contract for the construction of a three-story, 42x72-ft. plant, on Connecticut Ave., for the Bridgeport Pattern & Model Co., has been awarded to CHARLES A. BJORKLUND.

Camden, N. Y.—The Hydraulic Turbine Co., recently incorporated with a capital of $1,000,000, plans the expenditure of $250,000 for the construction and equipment of a plant. Russell S. Johnson is Pres.

Endicott, N. Y.—Plans are being prepared by the Endicott-Johnson Co. for the construction of a three-story, 100x200-ft. warehouse.

Syracuse, N. Y.—Bids will soon be received by H. W. Tamkin, City Engr., for the construction of a three-story and basement, 66x124-ft. warehouse, at Tracy and Wilkinson St. Estimated cost, $40,000.

Camden, N. J.—Plans have been prepared by Ballinger & Perrot, Archs., Philadelphia, Penn., for the construction of an eight-story, fireproof concrete office building, at Cooper St., opposite City Park, for the Victor Talking Machine Co. Estimated cost, $500,000. Noted Sept. 10, Sept. 24 and Nov. 19.

Plans have been prepared by William Steel & Sons Co., Archs., Philadelphia, Penn., for the construction of a five-story, 250x600-ft. brick and reinforced-concrete factory and a 300x640-ft. brick and reinforced-concrete warehouse, at Washington Park, for the Joseph I. Campbell Soup Co., Camden.

✚Newark, N. J.—The contract for the construction of a two-story, 50x150-ft. factory for Hermann Morris & Co. has been awarded to FRANCIS McCUE. The plant was recently destroyed by fire.

West Orange, N. J.—Thomas A. Edison, Inc., Belmont Ave., Silver Lake, N. J., plans to rebuild its plant, recently destroyed by fire, at Lakeside Ave. and Valley Rd., West Orange. Estimated cost, $1,000,000.

Glassport, Penn.—The Allegheny By-Product Coke Co. plans the expenditure of $100,000 on improvements to its plant. Construction to begin about Jan. 15. John F. Nicol is Mgr.

Philadelphia, Penn.—George H. Taber, Pittsburgh, has purchased a site on Stuart and Penrose Ave. containing 13½ acres, for the construction of a manufacturing plant.

✚Baltimore, Md.—The contract for the construction of a nine-story, 33x76-ft. factory for Morrow Bros. has been awarded to the TOWNSEND GRACE CO. Estimated cost, $80,000. Noted Sept. 17.

Bogalusa, La.—The Great Southern Lumber Co. plans the construction of a $1,000,000 byproducts plant and the remodeling of its paper mill. W. H. Sullivan is Gen. Mgr.

Baton Rouge, La.—The Sinclair Oil Co., Tulsa, Okla., plans the construction of an oil refinery at Baton Rouge. Estimated cost, $5,000,000.

✚New Orleans, La.—The CORRUGATED BAR CO., St. Louis, Mo., has been awarded the contract for supplying 6,000,000 lb. of steel bars and reinforcing work for the municipal cotton warehouses and a terminal. Estimated cost, $100,000. Noted Nov. 5, Dec. 24 and Dec. 31.

Memphis, Tenn.—H. W. Brennan is conducting a campaign, in Memphis, to raise $1,500 000 for the construction of a cotton mill. The Business Men's Club of Memphis is interested.

Covington, Ky.—The Reliance Textile & Dye Works has had plans prepared for the extension of its dyeing and finishing plant. Estimated cost, $25,000.

Louisville, Ky.—Plans have been prepared for the construction of a six-story, reinforced-concrete assembling plant for the Ford Motor Co., Detroit, Mich. The site contains 20,000 sq.ft.

Cleveland, Ohio—The Metals Welding Co. has increased its capital from $50,000 to $75,000, for the construction of a 35x130-ft. addition to its plant on Perkins Ave.

The Morgan Lithographing Co. plans the construction of a 170x250-ft. fireproof plant on Payne Ave. Estimated cost, $100,000.

Columbus, Ohio—The Jones Heel & Mfg. Co. has increased its capital from $30,000 to $75,000, for the construction of additions to its plant.

Massillon, Ohio—The Massillon Chair & Desk Co., recently incorporated with $300,000 capital, plans to construct a 100x250-ft. plant. Louis P. Manger is interested.

Chicago, Ill.—The Pullman Couch Co. has purchased a site for the construction of an eight-story, 100x159-ft. warehouse on State and 15th St. The estimated cost is $150,000 and construction will begin in the spring.

Chicago, Ill.—The Stewart-Warner Speedometer Co. will construct a six-story reinforced concrete addition to its plant at Diversey Parkway and Lincoln St. Estimated cost, $100,000.

✚Manitowoc, Wis.—The contract for the construction of a 160x200-ft. coal storage plant and dock for the Manitowoc Land & Fuel Co. has been awarded to the WORDEN-ALLEN CO., Milwaukee. Estimated cost, $50,000.

Oconto, Wis.—Plans are being prepared for the construction of a two-story, 40x100-ft. grain elevator warehouse and mill for J. A. Urquart.

St. Paul, Minn.—Local press reports state that the Central Warehouse Co. plans the construction of a $200,000 warehouse in the Midway district.

Kansas City, Mo.—The Missouri Can Co., 1210 West Ninth St., recently destroyed by fire, with a loss of $75,000, plans to rebuild its plant.

Poplar Bluff, Mo.—The Querius Lumber Co., recently destroyed by fire, with a loss of $40,000, will rebuild its plant at Poplar Bluff.

Boise, Idaho—The Modern Box Mfg. Co., Saint Maries, Idaho, contemplates the construction of a $30,000 box factory at Boise. Frederick Wooden and E. A. Knight, Spokane, Wash., are interested.

Seattle, Wash.—L. Y. Stayton, 510 California Bldg., Tacoma, plans the construction of a reinforced-concrete pile manufacturing plant, near Seattle. Estimated cost, $250,000.

Port Arthur, Ont.—The Western Drydock & Shipbuilding Co. plans the construction of an addition to its plant. The estimated cost is $25,000.

New Westminster, B. C.—The Mackie Mill & Mercantile Co., Gettysburg, Wash., will construct a shingle mill, with a capacity of 200,000 shingles per day.

Port Alberni, B. C.—A. J. Waskett plans the construction of a $25,000 shingle mill at Port Alberni.

Tampico, Mex.—W. E. Nelson, Arch., Brownsville, Tex., is preparing plans for the construction of a brick warehouse for the Urguta Estate. The estimated cost is $30,000.

FEDERAL GOVERNMENT WORK

Repairs to Post Office—Providence, R. I.—The following are the bids received for making repairs to the post office at Providence: Thomas F. Cullinan Co., $6986; Household Cabinet Works, Providence, R. I., $6500; F. G. Kingston & Co., Providence, $5554; Horton & Hemenway, Boston, Mass., $5495; Hope Building Co., Providence, $5097.

✚Storehouse—Washington, D. C.—The contract for constructing the storehouse at the Washington Navy Yard has been awarded to GEORGE E. WYNE, Washington, D. C., at $161,700. Noted Nov. 12 and Dec. 17.

Steel Towers—Washington, D. C.—Bids will be received by H. R. Stanford, Chief, Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a.m., Feb. 27, for constructing and erecting three 600-ft. steel towers at the following naval stations: San Diego, Calif.; Pearl Harbor, H. T., and Cavite, P. I.

Memorial—Washington, D. C.—See item under "Buildings."

★Steel Lock Gates—Wheeling, W. Va.—Bids will be received by Maj. T. H. Jackson, U. S. Engineer Offices, Wheeling, until 11 a.m., Jan. 30, for furnishing and erecting steel lock gates for Dam No. 15, Ohio River.

★Jetty Work—St. Petersburg, Fla.—The following are the bids received for building a stone jetty at the entrance to St. Petersburg Harbor: Edwards Construction Co., Tampa, Fla., $12,519; Simons-Mayrant Co., Charleston, S. C., $12,800. Noted Dec. 3.

Post Office—Middlesboro, Ky.—Bids were received as follows by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post office at Middlesboro, (a) stone-faced, light-colored limestone, (b) stone-faced, sandstone, (c) stone-faced, Bowling Green (Ky.) limestone, (d) brick-faced, stone base and trimmings of light-colored limestone, (e) sandstone, (f) Bowling Green limestone: John G. Unkefer & Co., Minerva, Ohio, (a) $62,840, (b) $74,340, (c) $68,340, (d) $62,000, (e) $69.840, (f) $65,340; William Everly, Indianapolis, Ind., (a) $66,747, (b) $68,106, (c) $66,420, (d) $63,871, (e) $64,873, (f) $63,471; George W. Stiles Construction Co., Chicago, Ill., (a) $67,474, (b) $71,974, (c) $69,812, (d) $65,752, (e) $69,128. (f) $68,348; William H. Fissell & Co., New York, (a) $67,450, (b) $74,450, (c) $73,300, (d) $66,450, (e) $73,450, (f) $70,930; R. S. Moore, Lafayette, Ind., (a) $68,200, (b) $74,132, (d) $66,219, (c) $70,504; W. M. Sutherland, St. Louis, Mo., (a) $68,283, (c) $70,616, (d) $66,199, (f) $68,694; Westchester Engineering Co., White Plains, N. Y., (a) $68,962, (b) $73,000, (c) $75,200, (d) $66,333, (e) $70,000, (f) $72,000; Volney E. Taylor, Huntington, W. Va., (a) $69,500, (b) $73,500, (d) $69,200, (e) $72,900; James Devault, Canton, Ohio, (a) $70,774, (b) $74,774, (d) $70,240; J. L. Crouse, Greensboro, N. C., (a) $71,773, (b) $73,773, (c) $76,226, (d) $70,882, (e) $72,382, (f) $73,882; Frank Cawood, Harlan, Ky., (a) $74,045, (b) $73,780, (c) $74,340, (d) $71,940, (e) $71,660, (f) $71,980; Bedford Stone & Construction Co., Indianapolis, Ind., (a) $75,684, (b) $75,000, (c) $77,000, (d) $74,224, (e) $76,300, (f) $75,300; Colonial Construction & Supply Co., Charlottesville, Va., (a) $78,899, (b) $80,899, (c) $83,394, (d) $77,271, (e) $76,679, (f) $80,424; Rigenrauch Co., Pittsburgh, Penn., (a) (b) (c) $95,139, (d) (e) (f) $92,159. Noted Nov. 12.

Cement—Leavenworth, Kan.—Bids will be received by F. H. Duehay, Supt. of Prisons, Washington, D. C., until 2 p.m., Jan. 23, for furnishing and delivering at the U. S. penitentiary, Leavenworth, 4000 bbl. of portland cement.

Addition to Post Office—Lincoln, Neb.—Bids will be received by Oscar Wenderoth, Superv. Arch., Washington, D. C., until 3 p.m., Feb. 18, for building an addition to the post office at Lincoln.

★Earthwork—Great Falls, Mont.—The following are the bids received for earthwork on Greenfields Distribution System, Greenfields, South and Mill Coulee Canals, involving about 385,000 cu.yd. of excavation: O'Connor & Helean, Great Falls, Mont., $43,691; J. E. Hilton, Billings, Mont., $52,537; MacArthur Bros. Co., 208 La Salle St., Chicago, Ill., $58,912; R. B. Fraser, Great Falls, $60,433; Grant Smith & Co., Fernwell Bldg., Spokane, Wash., $68,474; Charles Wilhite & Co., Boise, Idaho, $69,182; Tebbs & Taggart, Cowley, Wyo., $69,744; Nelson Rich, Prosser, Wash., $71,515; Bates & Rogers Construction Co., Spokane, Wash., $76,371; Foley Bros., Welch & Stewart, St. Paul, Minn., $76,174; Jurgens & Knipe, Glasgow, Mont., $44,126. Noted Nov. 26.

Post Office—Miles City, Mont.—Bids will be received by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p.m., Feb. 27, for the construction of a two-story and basement brick post office at Miles City.

★Excavation, Construction—St. Ignatius, Mont.—The following are the bids received for the construction of structures on Pablo Laterals "A" and "31A" and Sublaterals: (a) Schedule A; (b) Schedule B; (c) Schedule C; Miracle Concrete Corporation, Kalispell, Mont., (a) $8351; (b) $15,150; (c) $7883; Wilson Bros., Polson, Mont., (a) $11,951; (b) $21,043; (c) $12,076; A. L. Markhus, Polson, (a) $13,310; (b) $24,947; (c) $13,132; Municipal Construction Co., Helena, Mont., (a) $9996; (c) $21,123. Noted Nov. 26.

★Jetty Work—Sabine Pass, Tex.—The following are the bids received for jetty work at Sabine Pass: Charles Clark & Co., Galveston, Tex., $174,080; Edward Gillen Dock, Dredge & Construction Co., Racine, Wis., $183,000; David M. Picton & Co., Galveston, Tex., $176,600; Miller Engineering Co., Little Rock, Ark., $198,970. Noted Nov. 19.

★Post Office and Court House—Lawton, Okla.—Bids will be received by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p.m., Mar. 6, for the construction of a three-story and basement stone and brick post office and court house at Lawton.

Roof Work—Denver, Colo.—Bids will be received until 3 p.m., Jan. 11, by Oscar Wenderoth, Superv. Arch., Treasury Department, Washington, D. C., for roof work on the U. S. post office and court house.

Wood Stave Pipe—Montrose, Colo.—Bids will be received by the U. S. Reclamation Service, Montrose, until 4 p.m., Jan. 14, for the construction of 1764 lin.ft. of 17-in. wood stave pipe for the Uncompahgre Valley project. Alternative bids will be received for furnishing metal-banded or machine-banded wood stave pipe made either of Douglas fir or California redwood. F. D. Pyle is Mgr.

★Excavation, Etc.—Payson City, Utah—Bids will be received by the U. S. Reclamation Service Provo, Utah, until 2 p.m., Feb. 3, for construction, involving 158,000 yd. of excavation, 7000 yd. of concrete and other items. The work is located near Payson City, Utah, near the San Pedro, Los Angeles & Salt Lake R.R. and the Tintic Branch of the Denver & Rio Grande R.R. A. P. Davis is Ch. Engr.

Rock—Portland, Ore.—The only bid received at the U. S. Engineer office for furnishing 450,000 tons of rock for use on the north jetty at the mouth of the Columbia River, was from the Columbia Contract Co., at $1.10 per ton.

✚Bridges—Portland, Ore.—The contract for constructing eight steel swing bridges for the Dalles-Celilo Canal has been awarded to the COWLITZ BRIDGE CO., Yeon Bldg., Portland, Ore., at $15,863. Noted Nov. 5.

Repairs to Vessel—San Francisco, Calif.—Bids will be received by the Lighthouse Inspector, San Francisco, until 2 p.m., Jan. 13, for docking and repairing light vessel No. 70.

MISCELLANEOUS

Motor Fire Apparatus—Holyoke, Mass.—Press reports state that this city plans to spend $10,000 for the purchase of two combination trucks. The construction of a fire station is also contemplated.

✚Dredging and Wharf Construction—New Bedford, Mass.—(Official)—The State Harbor & Land Commission has awarded the contract for dredging and wharf construction to WILLIAM H. ELLIS & SON CO., 479 Meridan St., East Boston, at $347,910. William I. Williams is Ch. Engr. Noted Dec. 3 and 17.

Dock—Stamford, Conn.—The following bids were received for the construction of the municipal dock: Surburban Engineering Co., New York, N. Y., $60,834; Young & Hyde, New York, N. Y., $75,805; Harris Construction Co., Stamford, $77,578; W. B. Eyrich, Grantwood, N. J., $78,885; Daly & Merritt, Portchester, N. Y., $79,784. James C. Harding, 170 Broadway, New York, is Engr.

✚Monument—Albany, N. Y.—The contract for the erection of a memorial to the late Gen. Phillip Sheridan in Capitol Park has been awarded to DAVID C. FRENCH, at $25,000.

Stone Cutting—New York, N. Y.—(Official)—See item under "Water Supply—Irrigation."

★Subway—New York, N. Y.—(Official)—The Public Service Commission announces that the date for receiving bids for the construction of Section 4 of Routes Nos. 4 and 36, part of the Broadway-Fourth Ave. line, has been postponed indefinitely. Noted Dec. 17.

✚Motor Fire Apparatus—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for furnishing the fire department with 20 motor driven hose wagons was awarded to the INTERNATIONAL MOTOR CO., West End Ave., New York, at $73,580. Noted Dec. 10 and Dec. 24.

Riprap—New York, N. Y.—(Borough of Manhattan)—(Official)—The lowest bid received by the Commissioner of Docks and Ferries for furnishing, delivering and placing 50,000 cu.yd. of riprap, was that of the Frederick Starr Contracting Co., 1784 Broadway, New York, at 64c. per cu.yd. Noted Dec. 31.

Fire Hydrants—New York, N. Y.—(Boroughs of Manhattan and Bronx)—(Official)—The following bids were received by the Department of Water Supply, Gas and Electricity, for furnishing double nozzle fire hydrants for use in Manhattan and Bronx. A. P. Smith & Co., $10,040; John Fox & Co., $11,465; Kennedy Valve Mfg. Co., $11,845.

Motor Fuel Wagons—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 10:30 a.m., Jan. 15, by Robert Adamson, Fire Comr., Municipal Bldg., for furnishing and delivering four motor driven fuel wagons. The amount of security necessary will be 30% of the amount bid. For blank forms and further information apply at the office or the department, eleventh floor.

Fire Protection—New York, N. Y.—(Boroughs of Manhattan and Richmond)—The following bids were received, Dec. 30, by the Commissioner of Public Charities for installing fire protection work in the buildings on Randall's Island and those at the New York City Farm Colony: Spuyten Duyvil Construction Co., $27,170; Joseph Kresse, $27,760; Edmund D. Broderick, $28,900; Simon Russek, Inc., $29,553; J. M. Knapp 29,667; Marble Arch Co., $30,962; McHarg-Barton Co., $30,800 Neptune B. Smythe, Inc., $31,729; Louis Waschler, $33,164 William Werner, $35,888; Andrews Bldg. Co., Inc., $49,799 Noted Dec. 17.

Fire Station—Hoboken, N. J.—The Common Council, Dec. 31, rejected all bids received for the construction of the fire station at Second and Jefferson St. Noted Nov. 26, Dec. 17.

✚Broken Stone—Mount Holly, N. J.—(Official)—James Logan, County Engr., writes that the following bids were received by the Board of Chosen Freeholders for furnishing broken stone for the year 1915: LAMBERTVILLE STONE QUARRY CO., Lambertville, N. J., at 70c. per ton (awarded contract); Delaware River Quarry & Construction Co., Lambertville, 85c.; Bindsboro Stone Co., Bullion Bldg., Philadelphia, 60c. Noted Dec. 31.

✚Bathhouse—Newark, N. J.—(Official)—The city has awarded the contract for the construction of the East Side Bathhouse to PHILIP L. MACKINSON, Newark, at $81,089. J. S. Pigott, Newark, is Arch. Noted Dec. 17.

✚Wall—Philadelphia, Penn.—The Department of Public Works received the following bids for removing the existing wall and constructing a new brick wall along the south, east and west sides of Independence Square: P. J. HURLEY & CO., $11,070 (awarded contract); Mitchell Bros., $11,995; Eugene Tourison, $11,530; Henry E. Baton, $12,460; M. and J. G. McHugh, $13,299; P. J. Snyder, $14,900; American Paving & Construction Co., $16,000.

Pier—Wilmington, Del.—Local press reports state that the Chamber of Commerce contemplates the construction of a pier on the river front back of Eden Park. The estimated cost is $40,000.

★Dredging—Baltimore, Md.—(Official)—Bids will be received until 11 a.m., Jan. 20, by the Board of Awards, City Register's office, City Hall, for dredging the main channel north from Lazaretto Light to the piers of the transatlantic liners. Approximate quantity of material to be removed is 2,000,000 cu.yd. For details see advertisement under "Contracts to Be Let."

Automobile Trucks—Front Royal, Va.—W. Jackson Turner will receive bids for new or slightly used auto-trucks and busses for operation between Front Royal and Rappahannock.

Breakwater—Newport News, Va.—The Old Dominion Land Co. plans to issue $250,000 in bonds for making improvements to the Casino property. A reinforced-concrete breakwater will be constructed, extending from the Chesapeake & Ohio Ry. depot to the shipyard. W. B. Livezey is Pres.

Dredging—Mooresville, N. C.—All bids received Dec. 26 by C. V. Turlington, Mooresville, for 225,000 cu.yd. of dredging in Withrow's Creek, have been rejected. New bids will be received about Jan. 15. L. O. White, Statesville, is Engr.

Fair Buildings—Atlanta, Ga.—Charles A. Kauffman, Design. Engr. City Construction Dept., has prepared tentative plans for the development of 380 acres in Lakewood Park for the Southeastern Fair. The plans call for the construction of an aquarium at an estimated cost of $124,000; two stone bridges; grottos; and two buildings of the Roman Colosseum type.

★Levee and Sewer Construction—Augusta, Ga.—(Official)—Bids will be received by the City Council, River and Canal Commission, 747 Broad St., Augusta, until noon, Jan. 19, for constructing section 4, of the earth levee at Augusta. There will be 30,000 cu.yd. of excavation and 250,000 cu.yd. of fill. Bids also will be received for the construction of 3000 lin.ft. of reinforced concrete box sewer. For details see advertisement under "Contracts to Be Let."

Harbor Improvements—Jacksonville, Fla.—The Port Commission, F. W. Bruce, Ch. Engr., plans the construction of two piers, 200x1000 ft., apron wharves, sheds, water-works, drainage system, railway and machine shops. A bond issue of $1,500,000 was recently carried to provide for this work. Noted Dec. 24.

Arena—New Orleans, La.—Plans and specifications soon will be prepared for a large arena to be erected near the business center of the city. Dominick Tortorich and Thomas M'Carey are interested.

Caterpillar Tractor and Roller—Bowling Green, Ky.—(Official)—Bids will be received in January or February by M. H. Crump, Road Engr., Warren County, for one 10-ton gasoline or oil road roller and one 40 to 60 hp. caterpillar tractor.

Elimination of Grade Crossings—Cincinnati, Ohio—Press reports state that the city plans to eliminate all the dangerous crossings. The City Engineer has been requested to confer with the officials of the railroads and commence the preparation of plans. A bond issue of $1,000,000 will be made to cover the cost.

Hardware—Springfield, Ohio—Bids will be received until Jan. 27, by George W. Netts, Secy. Bd. Trustees, Memorial Bldg. Assn., Clark County, for furnishing hardware for the memorial hall.

Stadium—Evansville, Ind.—The lowest bid received by the City School Board for the construction of a stadium at the Garvin Park athletic field, was that of the M. J. Hoffman Co., Evansville, at $49,398. Noted Oct. 29.

✚Dredging—Indianapolis, Ind.—The Board of Public Works has awarded the contract for removing encroachments along the east side of White River to BERNARD NORTON, at $11,126. Noted Dec. 10 and 17.

Ditch—Richmond, Ind.—According to press reports, the Nettle Creek drainage ditch project has been approved. The plans call for the removal of about 175,000 cu.yd. of earth at an estimated cost of $20,000. Levi Peacock is County Surv.

✚Drain—Coldwater, Mich.—The contract for excavating the Little Swan Creek drain has been awarded to CLYDE A. WALB, Lagrange, Ind., at $12,750; the contract for building reinforced-concrete bridges was awarded to COLE & NORAN, Coldwater, at $4600. Noted Dec. 10.

Bathing Beaches and Playgrounds Bonds—Chicago, Ill.—Local press reports state that this city contemplates issuing $1,000,000 in bonds for the construction and improvement of bathing beaches, playgrounds and parks.

River Terminal—Quincy, Ill.—The Joint Terminal Commission, William K. Abbott, Chn., will soon order tentative plans to be prepared for terminals, docks, seawalls and breakwaters.

Drain—Madison, Wis.—Bids will be received until 2:30 p.m., Jan. 9, by the Town Board for furnishing the necessary materials and constructing the town drain. P. H. Hintze is Engr.

Ditches—Bemidji, Minn.—(Official)—Bids will be received until 2:30 p.m., Jan. 20, by J. L. George, County Audr., Beltrami County, for the construction of Judicial Ditch No. 23, requiring about 316,000 cu.yd. of earth excavation. The estimated cost is $59,949.

Bids will also be received on the same date for the construction of Judicial Ditches No. 26 and No. 28, requiring 115,000 and 204,618 cu.yd. of earth removal, respectively. The estimated cost of the former is $27,645, that of the latter $43,818. E. J. Bourgeois is Engr.

+**Ditch**—Fairmont, Minn.—The contract for the construction of Ditch No. 43 has been awarded to B. W. TYLER and J. N. ELTGRATH, at $11,400.

+**Dredging**—Minneapolis, Minn.—The Park Board has awarded the contract for dredging 175,000 cu.yd. at Cedar Lake to the HYDRAULIC DREDGING & ENGINEERING CO., at about $18,000. Two peninsulas will be eliminated and a swamp filled.

Ditch—Owatonna, Minn.—Bids will be received until 10 a.m., Jan. 11, by M. J. Parcher, County Audr., Steele County, for completing Judicial Ditch No. 1. Work consists of 42,000 cu.yd. of excavation and cleaning. George E. Ralph is Engr.

Stockyards—Billings, Mont.—Wallis Huidekoper and Charles O'Donnell, Billings, have purchased a site and have had plans prepared for the construction of stockyards and a packing plant. Bids will be received in the early spring.

Drainage—St. Ignatius, Mont.—The following bids were received on Dec. 15 for earth excavation, Pablo lateral A and sub-laterals, specifications No. 287: A. L. Marcus, Polson, $16,570; Charles Wilhite & Co., Boise, Idaho, $17,005; Wilson Bros., Polson, $19,447; Temple & Siroky, Heyburn, Idaho, $21,177; T. H. Lynch, Orland, Calif., $29,300. Charles P. Williams is Act. Superv. Engr.

+**Drainage**—Wynne, Ark.—(Official)—A communication from W. H. Newsom, Engr., Drainage District No. 2, Crittenden County, states that the contract for 5,164,000 cu.yd. of floating dredge work has been awarded to the R. H. & G. A. McWILLIAMS DRAINAGE CONSTRUCTION CO., Memphis, Tenn., at 8.76c. per cu.yd. Noted Nov. 26, Dec. 24 and 31.

Drainage Bonds—Angleton, Tex.—The Angleton Drainage District. Dec. 20, voted an additional issue of $80,000 in drainage bonds.

Ditches—Edna, Tex.—The Drainage Commissioners, County Drainage District No. 4, will receive bids until Jan. 12 for constructing canals, drains, ditches and levees in district No. 4, comprising 20,000 acres. About 100 miles of ditches will be constructed, having an estimated yardage of 400,000 cu.yd. S. L. Chalk, Box 592, San Antonio, is the Engr.

★**Fire Hydrants**—Sweetwater, Tex.—(Official)—Bids will be received by George T. Wilson, mayor, City of Sweetwater, until 2 p.m., Jan. 20, for furnishing 50 fire hydrants, 60 iron gate valves and other miscellaneous supplies. For details see advertisement under "Contracts to Be Let."

Market—Waco, Tex.—August A. Busch & Co., St. Louis, plans to erect a market at Austin and Eighth St.

Diversion Dam—Maxwell, N. M.—According to press reports, the Maxwell Irrigated Land Co. has secured options on 15,000 acres of land across the river. It is planned to build a diversion dam across the Red River above Hebron.

+**Refrigerating Plant**—Seattle, Wash.—The Seattle Port Commission has awarded the contract for installing three units of the refrigerating plant at the municipal docks to the VILTER MFG. CO., Milwaukee, Wis., at $50,000.

Drainage—Walla Walla, Wash.—Bids for the construction of the drainage system in the Attalia Drainage District were received from C. A. Broad, Spokane, and H. L. Wilson, Walla Walla. The bids were approximately $48,000 each.

Dredge Equipment—Portland, Ore.—The Seattle Port Commission will receive bids soon for the installation of new machinery in the dredge "Columbia."

Dike—Tillamook, Ore.—Bids will be received until Jan. 10 by H. F. Goodspeed, Tillamook, for constructing 13,400 lin.ft. of dike along the shores of Tillamook Bay.

+**Dredging**—Longbeach, Calif.—The contract for dredging about 64,000 cu.yd. of silt from Longbeach Harbor has been awarded to the LOS ANGELES DREDGING CO., Los Angeles, at $24,000. Noted Oct. 22, Dec. 24 and 31.

River Improvements—Los Angeles, Calif.—The Neuvo Land Co. plans to spend about $27,000 in improving San Jacinto River which runs through the Lakeview, Perris and Hemet Valley District.

Oil Tanks—Richmond, Calif.—The Royal Shell Co. of California has awarded the contract for the construction of ten oil storage tanks in Contra Costa County to the PETROLEUM IRON WORKS CO. at $136,500.

+**Metal Roofing**—San Francisco, Calif.—The Board of Public Works has awarded the contract for metal roofing the City Hall dome and lantern to the FORDERER CORNICE WORKS at $36,687.

Dock—San Francisco, Calif.—The Harbor Board will soon award the contract for the construction of a dock at the foot of Harrison St. for the Pacific Alaska Navigation Co.

Levee Work—Washington, Calif.—The township plans to spend $14,500 in enlarging and repairing the existing levee. The state engineering department will contribute $5000, the remainder will be raised by issuing bonds.

Motor Fire Apparatus—Halifax, N. S.—The Board of Control has recommended that $11,500 be included in this year's estimates for the purchase of a motor chemical engine. P. J. Broderick is Ch., Fire Dept.

Channel—Winnipeg, Man.—Bids will be received by S. H. Reynolds, Comn. Greater Winnipeg Water District, 901 Boyd Bldg., for furnishing the labor and material necessary for the construction of a channel between Indian and Snowshoe Bays.

Ferry and Wharf Extensions—West Vancouver, B. C.—This city plans to spend $6000 in making ferry extensions and $25,000 for repairs and extensions to the 14th St. wharf.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous."

Manchester, N. H.—Bids will be received until Mar. 1 for the construction of a church to cost $40,000. J. N. Quertin, 316 Kelley St., is Arch.

Belmont (Boston post office), **Mass.**—Plans are being prepared by Albert M. Pride, Arch., for the construction of a ten-story building at School and Belmont St. for the Highland Associates. Estimated cost $100,000.

Boston, Mass.—The Donnelly Advertising Agency has purchased a 190x200-ft. site on Washington St. for the construction of a concrete building. Estimated cost, $50,000.

+**Boston, Mass.**—The contract for the construction of a one-story 96x107-ft. Christian Science Church at Elm Hill Ave. and Howland St., Roxbury District, has been awarded to NORCROSS BROS. CO., Tremont Bldg.

+The contract for the construction of a ten-story, 23x192-ft. hotel at Washington and Avery St. for the Commonwealth Associates has been awarded to the HAYNES CONSTRUCTION CO., 178 Devonshire St.

Wakefield, Mass.—Preliminary arrangements are being made by Samuel Glazer and Harry Brooker, Boston, for the construction of a building on Wakefield Square for William Cohen. Estimated cost, $40,000.

Worcester, Mass.—All bids received for the construction of the $100,000 gymnasium for the Worcester Polytechnic Institute have been rejected. New bids will be received soon. Hewitt & Brown, South Minneapolis, is Arch.

Providence, R. I.—Clark & Howe, Archs., 76 Weybosset St., have completed plans for the construction of a school on Laurel Ave. Estimated cost, $190,000.

★**Bridgeport, Conn.**—(Official)—Bids will be received by the Board of Contract and Supply, Room 28, City Hall, until noon, Feb. 1, for the complete construction of an almshouse. See advertisement under "Contracts to Be Let."

Waterbury, Conn.—Bids will be received until Jan. 16, for the construction of a two-story and basement 87x120-ft. school by Louis A. Walsh, Arch., 51 Leavenworth St. Estimated cost, $85,000.

★**Binghamton, N. Y.**—(Official)—Bids will be received until 2:30 p.m., Jan. 21, by the State Hospital Commission, Capitol, Albany, for the construction of a building for chronic patients at the Binghamton State Hospital. Lewis M. Farrington is Asst. Secy. of the Comn. See Advertisement under "Contracts to Be Let" in the Dec. 31 issue.

Brighton (Rochester post office), **N. Y.**—Plans have been prepared by Howard W. Cutler for the construction of a building for the Iola Sanatorium. Estimated cost, $136,000.

Croghan, N. Y.—Plans are being prepared by D. D. Kreff, Arch., Watertown, N. Y., for the construction of parochial school for the St. Stephens R. C. Church. Estimated cost. $50,000.

Manhasset, N. Y.—Bids will be received until Jan 8, by the Board of Education, for the construction of a two-story school. Estimated cost, $70,000. F. H. Briggs, Plandome, L. I., is Arch.

New York, N. Y.—(Borough of Bronx)— Matthew W. Del Gaudio, 1910 Webster Ave., is preparing plans for the construction of two five-story apartments at Arthur Ave. and 184th St., for the Vico Realty Co., 47 Jay St. Estimated cost, $100,000.

+**New York, N. Y.**—(Borough of Bronx)—The contract for the construction of a school for the Church of Our Lady of Mercy, 2506 Marion Ave., has been awarded to McDERMOTT & HANIGAN, Inc., 103 Park Ave. J. V. Van Pelt is Arch.

(Borough of Bronx)—B. H. and C. N. Whinston, Archs., 148th St. and Third Ave., are preparing plans for the construction of a five-story building for the Young Folk's Circle of Forest Ave. Synagogue. Estimated cost, $50,000.

New York, N. Y.—(Borough of Manhattan)—(Official)—Sidney Diamant, Consult. Engr., 15 East 40th St., has been retained as structural engineer in connection with the eight-story fireproof building to be constructed at 588 Fifth Ave. for Frank Bros. Alfred Freeman, 29 West 34th St. is Arch.

★**New York, N. Y.**—(Borough of Manhattan)—(Official)—All bids received, Dec. 4, by the Board of Trustees of the Bellevue Hospital, for alteration to the main building of Harlem Hospital have been rejected. New bids will be received until 3 p.m., Jan. 13. Noted Dec. 17.

(Borough of Manhattan)—Plans have been prepared for the construction of a 13-story apartment house at 88th St. and West End Ave. Estimated cost, $1,200,000. C. V. Paterno, M. D., is interested.

(Borough of Manhattan)—Gronenberg & Leuchtag, Archs., 303 Fifth Ave., have completed plans for the construction of a six-story, 50x90-ft. apartment, at 113th St. and Seventh Ave., for the William Building Corporation, 132 Nassau St. Estimated cost, $60,000.

(Borough of Manhattan)—Bids will be received by Sommerfeld & Steckler, Archs., 31 Union Sq., for the construction of a 54x111 ft. synagogue at 22-28 West 114th St., for the Congregation Kel Israel Amshe Poland, 20-22 Forsyth St. Estimated cost $75,000.

★**Yorktown Heights, N. Y.**—(Official)—Bids will be received until noon, Jan. 12, by William B. Osgood Field, Pres. Bd. of Mgrs. of the New York State Training School for Boys, 2 West 45th St., New York, N. Y., for the construction of seven cottages for the training school. See advertisement under "Contracts to Be Let" in Dec. 31 issue.

Belleville, N. J.—All bids opened Dec. 29 by the Board of Education were rejected as they exceeded the appropriation. The lowest bid was submitted by the Altoria Construction Co., 3 East 44th St., New York, N. Y., at $108,667. The amount available is about $104,000. Noted Dec. 17.

Camden, N. J.—See item under "Industrial Works."

+Jersey City, N. J.—The contract for the rebuilding of St. Johns Episcopal Church on Summit Ave., recently destroyed by fire, has been awarded to WILLIAM ROBERTSON. Noted Nov. 5.

Morristown, N. J.—Valentine & Kissam, Archs., New York, N. Y., are preparing plans for the construction of an addition to the Memorial Hospital. Estimated cost, $75,000.

Newark, N. J.—The Board of Freeholders has had plans prepared for an addition to the Overbrook Hospital. Estimated cost, $200,000.

+Newark, N. J. — (Official) — Contracts for the interior work for the new wing and alterations at the city hospital have been awarded as follows: Masonry work, WILLIAM G. SARWELL, at $46,300; electrical work, BEAVER ENGINEERING CO., at $35,000; metal work, W. F. SHAFFER, INC.

Bids will be received until 4.15 p.m., Jan. 12, by the Board of Education for the construction of the McKinley School. Estimated cost, $102,000. R. D. Argue is Secy. of Bd. Noted Dec. 31.

Bedford, Penn.—David Goldner, Arch., 815 Highland Bldg., Pittsburgh, is preparing plans for Lee F. Hoffman, for the construction of an 82x120-ft., four-story building. Estimated cost $150,000.

Coaldale, Penn.—Plans are being prepared by Clye S. Adams, Arch., Philadelphia, for the construction of a two-story high school. Estimated cost, $50,000.

Philadelphia, Penn.—Plans are being prepared by John T. Windrim, Arch., for the construction of a group of seven buildings at 39th and Filbert St. for the Presbyterian Hospital. Estimated cost, $1,000,000.

Philadelphia, Penn.—Bids will soon be received for the construction of a school at James and Pratt St., Tacony. Estimated cost, $165,000. J. Horace Cook is Supt. of School Bldgs.

Bids will soon be received for the construction of an addition to the Southwark School. Estimated cost, $100,000. J. Horace Cook is Supt. of School Bldgs.

Plans are being prepared by B. T. Medoff & Son, Archs., for the construction of a theater at 31st and Wilt St., for Joseph Fisher, 720 Sansom St. Estimated cost, $50,000.

Bids will be received by R. H. Harte, M. D., Dir. Dept. of Pub. Health and Charities, Room 584 City Hall, until noon, Jan. 12, for the construction of new buildings to the Philadelphia Hospital for Contagious Diseases. Philip H. Johnson, 1824 Land Title Bldg., is Arch.

Pittsburgh, Penn.—Preliminary plans have been prepared by Alden & Harlow, Archs., Farmers' Bank Bldg. for the construction of the South Hills High School on Ruth and Secane St., Mt. Washington. Estimated cost $265,000.

Pittsburgh, Penn.—Huehl, Schmid & Holmes, Archs., Chicago, Ill., are preparing plans for the construction of a temple on Grant Blvd. and Lytton Ave., for the Syria Improvement Association. Estimated cost, $300,000.

Scranton, Penn.—Preliminary arrangements are being made for the construction of a building for St. Paul's Catholic Church. Estimated cost, $100,000.

Wilkes-Barre, Penn.—Plans have been prepared by Owen McGlynn, Arch., for the construction of a two-story school, to cost $60,000.

York, Penn.—Plans are being prepared by B. F. Willis, Arch., West Market St., for the construction of an administration building, nurses' home, power house and other structures for the York County Poor Board. Estimated cost, $350,000.

Washington, D. C.—Plans are being prepared by Tracy & Swartout, Archs., 244 Fifth Ave., New York, N. Y., for the construction of a $2,000,000 George Washington Memorial for the George Washington Memorial Association.

+Richmond, Va.—The contract for the construction of a school on Bainbridge St. has been awarded to A. M. WALKUP & CO., American Bank Bldg., at $99,820. Noted Dec. 10.

Richmond, Va.—Plans are being prepared by Carneal & Johnston for the construction of a ten-story, 25x150-ft. apartment house at Fifth and Grace St. Estimated cost, $150,000. Morton G. Talhimer, First National Bank Bldg., is interested.

Asheville, N. C.—(Official)—The lowest bid received for the construction of an addition to the Mission Hospital was that of Longest & Tessier Co., Greensboro, N. C. W. H. Lord is Arch. Noted Dec. 24.

+Columbia, Tenn.—The contract for the construction of a 191x200-ft. high school has been awarded to W. T. WILLERFORD, Nashville, at $58,300. Hart & Gardner, Nashville, are Archs.

+Cincinnati, Ohio—Contracts for the construction of the Chemistry Building for the University of Cincinnati have been awarded, by the Board of Directors, as follows: JOHN LACKER & SON, excavation, masonry and concrete footings, $11,103; ROOS BROS., reinforced concrete, $29,155; M. MARCUS BUILDING CO., carpentry, $12,750; POTTHOFF CONSTRUCTION CO., structural and ornamental iron and steel, $7227; HARKNESS & TOWLER, sheet metal work and roofing, $1079; DAVID HUMMEL BUILDING CO., brick and terra cotta work, tile partitions and granite work, $34,830; J. J. VOGELPOHL CO., heating, $8847; WILLIAMSON HEATER CO., ventilating, $12,089; HENKEL & SULLIVAN, grading and road work, $7439. Noted Oct. 8 and Nov. 26.

Cleveland Heights (Warrensville post office), **Ohio**—Plans have been prepared by Frederick W. Striebinger, Arch., 1900 Euclid Ave., Cleveland for the construction of a group of buildings on Lee and Mayfield Ave. for the Masons of Cleveland Heights and Euclid. Estimated cost, $125,000.

Hamilton, Ohio—The city has sold bonds for $200,000 the proceeds of which will be used for constructing a city hall. Noted Dec. 31.

McCutchenville, Ohio—The Board of Education will construct a high school for which $40,000 in bonds have been authorized.

Toledo, Ohio—The city has petitioned the City Council to issue $650,000 in bonds to be used for the construction of a city hall in Toledo.

Youngstown, Ohio—(Official)—Frank H. Hale, Engr., advises that plans have not been prepared for the $40,000 building in connection with the new $400,000 telephone plant. Noted Dec. 24.

Huntington, Ind.—Plans are being prepared for the construction of a 150x200-ft. school. Estimated cost, $150,000. Z. T. Dungan is Secy. of Bd. of Education.

Newcastle, Ind.—The citizens of Newcastle have petitioned the County Commissioners to appropriate $40,000 for the construction of a county hospital.

Battle Creek, Mich.—The Y. W. C. A. Building Committee plans the construction of a building at Maple, Van Buren St. and North Ave. Estimated cost, $50,000. I. L. Stone is Chn. of Bldg. Com.

Saginaw, Mich.—Bids will be received about June 1 for the construction of a three-story, 60x200-ft. school. Estimated cost, $60,000. Allen & Curtis are Archs.

Chicago, Ill.—G. P. Racine of G. P. Racine & Co. has purchased a 100x160-ft. site on Racine Ave. near Wilson Ave. for the construction of an eight-story fireproof hotel. Estimated cost $175,000. Construction will be started in March.

Milwaukee, Wis.—Plans have been prepared and submitted to the Building Inspection Department for the construction of a $50,000 apartment house on Twelfth St. between Grand Ave. and Wells St.

Cedar Falls, Iowa—Proudfoot, Bird & Rawson, Archs., Hubbell Bldg., Des Moines, are preparing plans for the construction of a three-story and basement vocational building for the Iowa State Teachers' College. The estimated cost is $100,000.

Pella, Iowa—Bids will be received about Feb. 15 for the construction of a two-story and basement high school. Estimated cost, $48,000. James S. Cox, Estherville, is Arch.

Wichita, Kan.—Philanthropists of Wichita and officers of the Lake Mohawk Conference plan the construction of a school for Indians on a 20-acre site recently purchased.

Omaha, Neb. — The Creighton University plans the construction of an $80,000 gymnasium on the university campus.

Sioux Falls, S. D.—The Elks of Sioux Falls plan the construction of a three-story, 60x68-ft. club building on Dakota Ave. between Ninth and Tenth St. The estimated cost is $75,000.

Alton, Mo.—An addition estimated to cost $50,000 will be constructed to the Cathedral Orphanage, at Alton.

St. Louis, Mo.—The bill providing $75,000 for the construction of a stone building for the House of Detention and Juvenile Court has been passed by the House of Delegates. Noted Dec. 10.

Austin, Tex.—The First Methodist Church will construct a $100,000 building in Austin.

+Galveston, Tex.—The contract for the construction of the municipal building has been awarded, by the City Commission to the GROSS CONSTRUCTION CO., Waco, at $205,693. Noted Sept. 18, 1913 and Sept. 3, 1914.

Houston, Tex.—The Seth Ward Memorial Methodist Church plans the construction of a building to cost about $50,000.

+Logan, Utah—(Official)—The contract for the construction of a four-story 75x100-ft. hotel and bank building for the Hotel Logan Co., has been awarded to the HYDE & THOMPSON BUILDING CO. The heating and plumbing contract has been awarded to F. W. SPENCER & CO., Salt Lake City.

+(Official)—The contract for the construction of the three-story, 68x115-ft., chemical laboratory for the Utah Agricultural College has been awarded to HYDE & THOMPSON BUILDING CO., Logan, Utah. Noted Dec. 3.

Walla Walla, Wash.—The County Commissioners voted to expend about $150,000 on a courthouse at Walla Walla. Henry Osterman, Arch., is preparing plans. Noted Aug. 7, Oct. 23 and Nov. 6, 1913.

Monmouth, Ore.—The Board of Regents of the Oregon Normal School have petitioned the next legislature to appropriate $50,000 for the construction of a training school at Monmouth.

Portland, Ore.—Plans have been prepared for the construction of a four-story building for the women of Reed College. The estimated cost is $120,000. William T. Foster is Pres.

+Longbeach, Calif.—The BAKER IRON WORKS, Los Angeles has been awarded the contract for the structural steel work for the Class A building for Markwell Bros. The building was designed and is being constructed by the Longbeach Improvement Co. Estimated cost, $300,000. Noted Oct. 1.

Los Angeles, Calif.—The students of the University of Southern California plan the construction of a $60,000 building as a memorial to James H. Hoose. George F. Bovard is Pres.

(Continued on page 14)

+Sewage Collecting System—Dunellen, N. J.—Bids were received, Dec. 7, by the Borough Council for constructing a sewage collecting system from (A) Engineer's Estimate; (B) H. K. CORBIN & CO., INC., 170 Broadway, New York, N. Y. (awarded contract); (C) Bruno Pizzimenti, Seneca Falls, N. Y.; (D) Di Napoli & Toriello Construction Co., Hackensack, N. J.; (E) Cantrell Construction Co., Philadelphia, Penn.; (F) John C. Scrade, Inc., Brooklyn, N. Y.; (G) Fusco Construction Co., Newark, N. J.; (H) Kelly-McFeeley Co., Camden, N. J.; (I) Peter D'Amato, Newark, N. J.; (J) Joseph Sigretto, Woodhaven, N. Y.; (K) Peekskill Construction Co., Peekskill, N. Y.; (L) Harrison & Burton, New York, N. Y.; (M) Frank Puglia, Paterson, N. J.; (N) Jones & McRoberts, Ltd., Pittsburgh, Penn.; (O) D. M. Rosser, Kingston, Penn.; (P) Joseph Johnson's Sons, West New Brighton, N. Y.; (Q) A. H. Lupton & Son, Bridgeton, N. J.; (R) T. Foster Callahan, Elizabeth, N. J.; (S) H. C. Brooks Co., Martinsburg, W. Va.; (T) Joseph Dimando, Inc., Mamaroneck, N. Y.; (U) Langan Engineering & Construction Co., Jersey City, N. J.; (V) Cenedella & Co., Milford, Mass.; (W) Schneider Stelle & Co., New Brunswick, N. J.; (X) A. D. Ambrosio, Hartford, Conn. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K	L
10,400 lin.ft. 8-in. vitrified pipe sewer, 0-6 ft. deep	$0.47	$0.33	$0.43	$0.48	$0.41	$0.44	$0.47	$0.425	$0.47	$0.325	$0.47	$0.47
39,600 lin.ft. 8-in. vitrified pipe sewer, 6-8 ft. deep	0.59	0.45	0.47	0.55	0.50	0.49	0.52	0.568	0.53	0.66	0.57	0.59
6600 lin.ft. 8-in. vitrified pipe sewer, 8-10 ft. deep	0.73	0.70	0.70	0.77	0.73	0.63	0.67	0.76	0.60	0.80	0.79	0.72
1400 lin.ft. 8-in. vitrified pipe, sewer, 10-12 ft. deep	0.92	0.96	1.00	1.07	0.92	0.94	0.77	0.99	0.89	1.05	1.10	0.89
800 lin.ft. 8-in. vitrified pipe sewer, 12-14 ft. deep	1.17	1.18	1.25	1.46	1.33	1.06	0.92	1.53	1.13	1.40	1.40	1.42
100 lin.ft. 8-in. vitrified pipe sewer, 14-16 ft. deep	1.47	1.46	2.00	1.84	1.67	1.65	1.25	1.83	1.83	2.00	1.74	2.22
1000 lin.ft. 10-in. vitrified pipe sewer, 0-6 ft. deep	0.59	0.40	0.50	0.57	0.57	0.52	0.60	0.505	0.54	0.60	0.62	0.54
2700 lin.ft. 10-in. vitrified pipe sewer, 6-8 ft. deep	0.71	0.60	0.60	0.65	0.65	0.60	0.67	0.6375	0.60	0.80	0.70	0.63
1900 lin.ft. 10-in. vitrified pipe sewer, 8-10 ft. deep	0.86	0.90	0.80	0.92	0.80	0.73	0.80	0.83	0.83	0.95	0.94	0.79
1300 lin.ft. 10-in. vitrified pipe sewer, 10-12 ft. deep	1.06	1.19	1.05	1.36	1.01	1.02	0.87	1.06	1.27	1.15	1.27	0.96
3900 lin.ft. 10-in. vitrified pipe sewer, 12-14 ft. deep	1.32	1.35	1.30	1.70	1.40	1.15	1.00	1.57	2.22	1.50	1.51	1.74
800 lin.ft. 10-in. vitrified pipe sewer, 14-16 ft. deep	1.64	2.04	2.00	2.00	1.70	1.75	1.37	1.87	2.76	1.75	1.82	2.29
100 lin.ft. 12-in. vitrified pipe sewer, 0-6 ft. deep	0.71	0.58	0.60	0.66	0.62	0.62	1.00	0.61	0.60	0.75	0.73	0.59
100 lin.ft. 12-in. vitrified pipe sewer, 6-8 ft. deep	0.84	0.77	0.75	0.75	0.72	0.71	1.15	0.77	0.75	1.00	0.80	0.68
100 lin.ft. 12-in. vitrified pipe sewer, 8-10 ft. deep	1.01	1.03	1.00	1.05	0.88	0.87	1.30	0.98	1.00	1.25	1.11	0.84
100 lin.ft. 12-in. vitrified pipe sewer, 10-12 ft. deep	1.22	1.28	1.50	1.43	1.22	1.09	1.50	1.24	1.50	1.50	1.47	1.01
200 lin.ft. 12-in. vitrified pipe sewer, 12-14 ft. deep	1.50	1.57	2.00	1.87	1.58	1.22	2.00	1.81	2.55	1.65	1.69	1.79
100 lin.ft. 15-in. vitrified pipe sewer, 0-6 ft. deep	0.94	0.77	0.80	0.92	0.91	0.80	1.10	0.83	0.95	1.00	1.03	0.89
100 lin.ft. 15-in. vitrified pipe sewer, 6-8 ft. deep	1.07	0.96	1.00	1.02	1.04	0.93	1.25	0.98	1.16	1.15	1.17	1.00
100 lin.ft. 15-in. vitrified pipe sewer, 8-10 ft. deep	1.25	1.22	1.30	1.33	1.35	1.13	1.50	1.20	1.33	1.50	1.46	1.15
100 lin.ft. 15-in. vitrified pipe sewer, 10-12 ft. deep	1.49	1.43	1.60	1.76	1.57	1.43	1.75	1.46	2.60	1.75	1.80	1.27
200 lin.ft. 15-in. vitrified pipe sewer, 12-14 ft. deep	1.79	1.77	2.00	2.21	2.03	1.58	2.00	2.00	2.95	1.90	2.03	1.40
1500 lin.ft. 15-in. vitrified pipe sewer, 14-16 ft. deep	2.15	1.87	2.30	2.58	2.21	2.17	2.50	2.35	3.37	2.02	2.36	2.55
300 lin.ft. 15-in. vitrified pipe sewer, 16-18 ft. deep	2.59	2.32	2.80	2.75	3.12	2.83	3.00	2.76	3.52	2.75	2.82	3.05
2300 5-in. Y branches on 8-in. pipe	0.60	0.32	0.30	0.48	0.55	0.30	1.00	0.35	0.50	0.40	0.56	0.50
500 5-in. Y branches on 10-in. pipe	0.71	0.42	0.40	0.70	0.81	0.45	1.00	0.51	0.60	0.58	0.78	0.70
8 5-in. Y branches on 12-in. pipe	0.82	0.50	0.50	0.90	0.95	0.50	1.00	0.80	0.75	0.72	0.95	0.90
80 5-in. Y branches on 15-in. pipe	0.98	0.64	0.75	1.53	1.45	1.00	1.50	1.02	1.00	1.30	1.12	1.40
700 5-in. one-eighth bends	0.36	0.10	0.20	0.29	0.39	0.30	0.50	0.35	0.45	0.40	0.45	0.25
200 5-in. Y branches with caps	0.61	0.25	0.50	0.48	1.18	0.50	1.00	0.64	0.40	0.40	0.73	0.35
500 lin.ft. 5-in. vitrified pipe risers	0.76	0.72	0.70	0.43	0.56	1.05	1.00	0.81	0.40	0.75	0.34	1.00
9000 lin.ft. 5-in. vitrified house connections	0.46	0.55	0.40	0.39	0.41	0.50	0.37	0.49	0.35	0.40	0.50	0.50
1600 lin.ft. laying 6-in. c.i. force main	0.32	0.30	0.35	0.42	0.38	0.60	0.50	0.30	0.35	0.75	0.67	0.25
3000 lin.ft. ½" galvanized iron pipe line	0.25	0.20	0.30	0.12	0.24	0.50	0.27	0.22	0.25	0.30	0.45	0.30
25 tons c.i. bell and spigot pipe	23.00	22.00	23.00	22.00	24.00	24.00	25.00	20.70	50.00	40.00	40.00	21.00
2 tons c.i. specials	55.00	60.00	56.00	60.00	73.50	70.00	50.00	55.00	60.00	60.00	90.00	60.00
160 manholes	40.00	40.00	40.00	42.00	46.00	40.00	52.00	47.43	38.00	40.00	45.00	40.00
70 flushtanks	70.00	75.00	75.00	80.00	81.60	90.00	100.00	79.43	70.00	71.00	84.00	75.00
Sewage pumping station Bound Br. R'd n'r Schwartz Pl. (lump sum)	1850.00	1900.00	2000.00	900.00	1812.00	3200.00	2700.00	2356.00	2500.00	1885.00	2600.00	2900.00
Sewage pumping station Bound Br. R'd n'r Washington Av. & 6th St.	3085.00	1500.00	2500.00	1400.00	2656.00	4000.00	3750.00	3154.00	3500.00	2675.00	2400.00	3600.00
Sewage pumping machinery in P.S. B'd Br. Rd near Schwartz Pl.	4045.00	2600.00	2600.00	1600.00	3482.00	3200.00	2000.00	2900.00	2500.00	2500.00	3400.00	4315.00
Sewage pumping machinery Washington Ave. & 6th St.	2960.00	3700.00	3800.00	3700.00	3968.00	3300.00	4700.00	3633.00	3500.00	4490.00	3900.00	4114.00
1000 ft. b.m. lumber for foundations	45.00	35.00	75.00	45.00	56.50	40.00	47.00	50.00	40.00	40.00	45.00	30.00
100 lin.ft. piles	0.50	1.00	0.75	0.60	1.50	0.75	0.30	1.00	0.50	0.50	0.90	1.00
1000 ft. b.m. sheathing left in place	35.00	35.00	40.00	38.00	35.00	25.00	47.00	50.00	36.00	40.00	28.00	30.00
700 cu.yd. excavation and embankment	1.00	1.00	1.50	0.50	2.35	1.00	0.50	1.00	1.25	0.60	0.95	0.60
200 cu.yd. extra earth excavation	0.60	1.00	1.50	0.75	1.00	1.00	0.47	0.50	1.50	0.60	0.56	0.60
200 cu.yd. rock excavation	3.00	2.00	2.00	2.00	2.50	2.00	1.00	3.50	2.00	3.00	2.80	2.00
200 cu.yd. earth filling	1.00	0.60	0.60	0.25	0.45	0.30	0.50	0.50	0.35	0.30	0.62	0.50
100 cu.yd. stone or gravel filling	2.00	1.50	2.00	2.25	2.30	2.00	2.00	1.25	3.00	2.50	1.15	2.00
100 cu.yd. additional concrete	9.00	6.50	8.00	7.00	5.50	10.00	12.00	6.60	10.00	5.50	7.25	10.00
1000 lb. additional steel reinforcement	0.04	0.03	0.04	0.04	0.03	0.03	0.05	0.03	0.03	0.025	0.05	0.05
13,000 sq.yd. resurfacing macadam	0.30	0.40	0.25	0.18	0.27	0.39	0.27	0.30	0.30	0.25	0.34	0.50
Extended totals	$91,624	$82,604	$84,115	$86,806	$89,577	$90,361	$92,343	$93,254	$94,565	$94,691	$97,709	$99,675

	M	N	O	P	Q	R	S	T	U	V	W	X
10,400 lin.ft. 8-in. vitrified pipe sewer, 0-6 ft. deep	$0.49	$0.64	$0.55	$0.52	$0.65	$0.60	$0.70	$0.75	$0.70	$0.80	$0.90	$0.85
39,600 lin.ft. 8-in. vitrified pipe sewer, 6-8 ft. deep	0.50	0.75	0.65	0.63	0.69	0.75	0.80	0.95	0.80	1.00	1.06	1.15
6600 lin.ft. 8-in. vitrified pipe sewer, 8-10 ft. deep	0.75	1.00	0.65	1.23	0.82	0.90	0.90	1.20	1.43	1.23	1.50	1.50
1400 lin.ft. 8-in. vitrified pipe, sewer, 10-12 ft. deep	1.40	1.10	1.20	1.45	1.17	1.25	1.25	1.40	1.79	1.63	1.98	1.85
800 lin.ft. 8-in. vitrified pipe sewer, 12-14 ft. deep	1.65	1.30	1.50	1.85	1.62	1.85	2.00	1.75	1.97	2.11	2.55	2.25
100 lin.ft. 8-in. vitrified pipe sewer, 14-16 ft. deep	2.25	1.50	1.60	2.40	1.82	2.50	3.00	2.05	2.46	2.67	3.75	3.00
1000 lin.ft. 10-in. vitrified pipe sewer, 0-6 ft. deep	0.47	0.80	0.65	0.60	0.73	0.72	0.80	0.80	0.75	0.88	0.98	0.91
2700 lin.ft. 10-in. vitrified pipe sewer, 6-8 ft. deep	0.60	0.90	0.85	0.82	0.77	0.95	0.95	1.10	0.76	1.08	1.25	2.25
1900 lin.ft. 10-in. vitrified pipe sewer, 8-10 ft. deep	1.00	1.10	1.10	1.13	1.00	1.10	1.10	1.40	1.52	1.31	1.60	2.55
1300 lin.ft. 10-in. vitrified pipe sewer, 10-12 ft. deep	1.40	1.20	1.60	1.35	1.25	1.60	1.50	1.75	1.93	1.71	2.00	3.00
3900 lin.ft. 10-in. vitrified pipe sewer, 12-14 ft. deep	2.25	1.40	1.65	1.85	2.10	2.25	2.50	2.00	2.04	2.19	2.60	3.50
800 lin.ft. 10-in. vitrified pipe sewer, 14-16 ft. deep	2.75	1.50	1.90	2.50	2.70	3.25	3.75	2.75	2.61	2.75	3.84	5.25
100 lin.ft. 12-in. vitrified pipe sewer, 0-6 ft. deep	0.65	0.90	0.75	0.80	1.10	0.85	0.95	0.85	0.74	1.10	1.20	1.10
100 lin.ft. 12-in. vitrified pipe sewer, 6-8 ft. deep	0.75	1.00	0.85	1.30	1.44	1.00	1.15	1.17	0.82	1.35	1.45	1.25
100 lin.ft. 12-in. vitrified pipe sewer, 8-10 ft. deep	1.10	1.10	1.35	1.35	1.73	1.40	1.30	1.45	1.57	1.75	1.86	2.00
100 lin.ft. 12-in. vitrified pipe sewer, 10-12 ft. deep	1.50	1.30	1.55	1.70	1.78	2.00	1.80	1.75	2.00	2.25	2.27	2.50
200 lin.ft. 12-in. vitrified pipe sewer, 12-14 ft. deep	2.50	1.40	1.90	2.00	2.14	2.80	2.90	2.00	2.10	2.75	2.84	3.10
100 lin.ft. 15-in. vitrified pipe sewer, 0-6 ft. deep	0.80	1.15	1.00	1.05	1.20	1.00	1.25	1.20	0.94	1.50	1.40	1.45
100 lin.ft. 15-in. vitrified pipe sewer, 6-8 ft. deep	0.90	1.30	1.10	1.20	2.45	1.25	1.50	1.40	1.01	1.67	1.65	1.75
100 lin.ft. 15-in. vitrified pipe sewer, 8-10 ft. deep	1.60	1.40	1.60	1.45	2.88	1.75	2.00	1.75	1.76	2.07	2.06	2.15
100 lin.ft. 15-in. vitrified pipe sewer, 10-12 ft. deep	2.25	1.60	1.75	1.95	3.00	2.25	2.50	2.00	2.20	2.65	2.47	3.10
200 lin.ft. 15-in. vitrified pipe sewer, 12-14 ft. deep	2.75	1.70	1.90	2.50	3.28	3.00	3.00	2.40	2.38	3.32	3.04	4.50
1500 lin.ft. 15-in. vitrified pipe sewer, 14-16 ft. deep	3.25	1.90	2.20	2.90	3.73	3.50	4.00	3.00	2.85	4.22	4.14	5.85
300 lin.ft. 15-in. vitrified pipe sewer, 16-18 ft. deep	4.00	2.00	2.90	3.50	3.95	4.25	5.00	4.00	3.09	5.32	5.35	6.35
2300 5-in. Y branches on 8-in. pipe	0.65	0.60	0.45	0.50	0.60	0.50	0.60	0.55	0.60	0.50	0.48	1.10
500 5-in. Y branches on 10-in. pipe	0.75	0.70	0.50	0.65	0.80	0.75	0.90	0.70	0.82	0.65	0.65	1.15
8 5-in. Y branches on 12-in. pipe	2.00	0.80	0.65	0.85	1.10	1.25	1.25	0.90	1.00	0.85	0.83	1.75
80 5-in. Y branches on 15-in. pipe	2.20	1.50	0.95	1.50	1.50	1.25	1.50	1.50	1.72	1.50	1.26	2.25
700 5-in. one-eighth bends	0.60	0.30	0.45	0.30	0.50	0.40	0.40	0.30	0.36	0.40	0.20	0.45
200 5-in. Y branches with caps	0.80	0.60	0.65	0.40	0.60	0.50	1.00	0.40	0.46	0.60	0.47	0.35
500 lin.ft. 5-in. vitrified pipe risers	1.00	0.50	0.70	0.25	0.60	0.50	1.00	0.40	0.25	0.60	0.60	0.45
9000 lin.ft. 5-in. vitrified house connections	0.30	0.40	0.45	0.80	0.69	0.50	0.80	0.55	0.94	0.50	0.65	0.65
1600 lin.ft. laying 6-in. c.i. force main	0.35	0.30	0.40	1.00	0.35	0.40	0.50	0.50	1.25	0.40	0.28	0.85
3000 lin.ft. ½" galvanized iron pipe line	0.45	0.30	0.15	0.25	0.10	0.10	0.50	0.40	0.76	0.40	0.15	0.45
25 tons c.i. bell and spigot pipe	40.00	30.00	25.00	24.50	24.00	24.00	25.00	22.50	69.00	25.00	22.00	30.00
2 tons c.i. specials	80.00	60.00	60.00	65.00	60.00	60.00	80.00	80.00	60.00	65.00	55.00	32.00
160 manholes	40.00	40.00	50.00	45.00	52.50	45.00	50.00	60.00	75.00	48.00	38.00	59.00
70 flushtanks	75.00	70.00	100.00	90.00	80.00	70.00	75.00	90.00	85.00	85.00	72.00	87.00
Sewage pumping station Bound Br. R'd n'r Schwartz Pl. (lump sum)	2500.00	2000.00	3000.00	3000.00	2500.00	3500.00	4000.00	3500.00	2105.00	2284.00	2640.00	3279.00
Sewage pumping station bound Br. R'd n'r Washington Av. & 6th St.	3140.00	3000.00	4100.00	4000.00	3000.00	4000.00	4000.00	4600.00	2027.00	2585.00	3170.00	4300.00
Sewage pumping machinery in P.S. B'd Br. R'd n'r Schwartz Pl.	2500.00	4000.00	3000.00	3200.00	3800.00	3000.00	3000.00	2350.00	2085.00	4350.00	2350.00	1350.00
Sewage pumping machinery Washington Ave. & 6th St.	3700.00	3000.00	4100.00	4500.00	4000.00	3500.00	3740.00	3740.00	3795.00	4040.00	3600.00	1350.00
1000 ft. b.m. lumber for foundations	65.00	40.00	50.00	40.00	35.00	50.00	40.00	40.00	50.00	50.00	48.00	35.00
100 lin.ft. piles	1.00	0.50	0.60	0.40	0.50	1.00	0.50	1.50	0.75	0.50	0.80	1.25
1000 ft. b.m. sheathing left in place	58.00	40.00	40.00	30.00	35.00	35.00	30.00	35.00	50.00	30.00	45.00	35.00
700 cu.yd. excavation and embankment	8.70	1.00	0.75	0.75	2.80	2.00	2.00	0.75	1.00	1.00	2.50	0.65
200 cu.yd. extra earth excavation	2.00	0.50	1.75	0.75	2.00	3.00	2.00	1.00	0.75	1.50	3.00	0.75
200 cu.yd. rock excavation	1.50	3.00	0.50	3.00	2.00	3.00	3.50	3.00	3.00	4.00	1.25	3.00
200 cu.yd. earth filling	0.30	1.00	0.25	0.20	0.50	1.00	1.00	0.75	0.35	1.50	0.75	0.75
100 cu.yd. stone or gravel filling	3.00	2.00	2.00	2.25	2.50	2.00	2.00	2.00	1.75	2.50	2.30	2.50
100 cu.yd. additional concrete	6.00	9.00	10.00	7.00	10.00	9.00	8.50	7.00	8.00	10.00	12.00	80.00
1000 lb. additional steel reinforcement	0.05	0.04	0.04	0.04	0.05	0.04	0.05	0.04	0.03	0.05	0.03	0.05
13,000 sq.yd. resurfacing macadam	0.20	0.30	0.50	0.40	0.40	0.40	0.50	0.60	0.69	0.60	0.50	0.50
Extended totals	$101,241	$102,627	$105,746	$113,634	$115,967	$116,775	$130,265	$133,782	$134,793	$137,713	$143,298	$171,722

BUILDINGS

(Continued from page 12.)

St. Johns, Newfoundland—Bids will soon be received for the construction of a building for the Cochrane St. Church, to cost $80,000. Ross & MacDonald, Montreal, Que. are Archs.

Tampico, Mexico—Plans are being prepared by W. E. Nelson, Arch., Brownsville, Tex., for the construction of a six-story, 130x130-ft., brick and concrete office building for the Urguta Estate. Estimated cost, $300,000.

The Buffalo Slag Co., Buffalo, N. Y., announces the removal of its offices to 217 Ellicott Sq.

Balcom & Darrow, Engrs., announce that they have moved from 70 East 45th St., and are now located at 10 East 47th St., New York, N. Y.

The Goulds Mfg. Co., Seneca Falls, N. Y., announces that a branch office was recently opened in the Third National Bank Building, Atlanta, Ga. This office will be in charge of A. B. Tanner.

The Concrete Mixing & Placing Co., 123 W. Madison St., Chicago, which has handled the pneumatic concrete mixer and conveyor in the West, announces that it has extended its business to include the eastern states. H. B. Kirkland is Pres.

Automobile Trade—According to Alfred Reeves, General Manager of the Automobile Chamber of Commerce, 515,000 motor vehicles, valued at $485,000,000, were manufactured in 1914. These were made by 450 companies. It is estimated that there were 1,500,000 automobiles registered in the various states at the end of 1911.

The Koehring Machine Co., Columbus, Ohio, announces that a new office will be opened Jan. 1 by W. W. Williams in the Provident Bank Bldg., Cincinnati, C. O. Owens will be in charge of this office, which will be a branch of the Columbus office, and will handle Koehring mixers, Howard traction rollers, Sternberg trucks, and other lines of allied equipment.

Municipal Improvements—The city of Philadelphia, Penn., will award contracts for municipal work during 1915, amounting to approximately $8,000,000. This is the sum provided for in the tax levy budget recently passed by the City Council. Two important undertakings will be finished next year—the sewer system and the extension of the water works, including a filtration plant. The city will not wait until spring to start the public improvement work. As much as possible will be done during January, February and March to provide work for laborers, inspectors, foremen and others.

Sullivan Drills in St. Louis—Although three separate contractors are driving the 1800-ft. section of the Hill Creek Intersecting Sewer, all of them are using Sullivan air compressors and drills. There are six belt-driven two-stage compressors in use, five having a pressure displacement of 1150 cu.ft. per min. and one of 628 cu.ft. per min. There are 46 rock drills in use, being the Sullivan "FF-12" type, a reciprocating piston machine with a hollow piston, a 1-in. tube and water jet discharging water through hollow steel drill to clear away the cuttings. The drill is 2⅝ in. and it is recalled that this is the size of drill and make which was used on the Mount Royal Tunnel of the Canadian Northern Ry. in Montreal.

The Galion Iron Works & Manufacturing Co., Galion, Ohio, manufacturer of culvert pipe, road makers' machinery, contractors' and municipal supplies, has made a Christmas presentation of a life insurance policy to each of its employees. These policies are issued through the Group Insurance Department of The Equitable Life Assurance Society of the U. S. and guarantee absolutely, in the event of death from any cause whatsoever, to pay the salaries of such employees to their families each month for an entire year. Mr. D. C. Boyd, Pres. and Gen. Mgr. of the company, when interviewed in connection with this group insurance transaction, said, "We regard every one in our service as an important integral part of our company and of distinct value in carrying our purposes into effect. The officers of the company have the keenest interest in the welfare of each individual connected with us and have taken every possible precaution to surround them with the most modern equipment for their safety and comfort. We know of no other way in which we could more efficiently manifest our concern for our employees than through the protection of their families and it is our hope that these life insurance policies will add something to their feeling of security."

The Composition Floor Manufacturers' Association has been formed to unite all reliable and experienced manufacturers of composition flooring using the "oxychloride of magnesia" process. The main objects are to be the establishment of standards in quality, the publication of specifications for foundations, a publicity campaign truthfully stating the qualities of the material and giving reliable directions for maintenance and care in use. For twenty years promoters have been selling formulas, under patents or trade secrets, for plastic cements which would give an elastic and sanitary flooring. Yet the process of manufacture and the chemical combination is an old one, having first been published by Sorel, a French chemist, in 1866. Calcined magnesite is combined with a solution of chloride of magnesia, giving a stone-like substance known as oxychloride of magnesia. Its peculiarity is that it will combine with organic substances to give a more elastic and resilient flooring than will lime cements. But composition floorings are being made by hundreds of inexperienced manufacturers without attempt at chemical control. Few understand that less than 20% of the material sold in the United States as powdered calcined magnesite is fit for making composition flooring, or that successful manufacturers must know the exact amounts of oxide of magnesium and lime in magnesite and the impurities in the chloride of magnesia. As a result of this situation many composition floorings installed have turned out generally unsatisfactory. The Composition Floor Manufacturers Association invites all manufacturers willing to help in eliminating the present unsatisfactory conditions to join. Applications should be sent to the secretary of the Association, M. J. Traub, 37 West Van Buren Street, Chicago, Ill.

Labor Unions Must Pay Damages

After years of litigation, the Supreme Court of the United States, Jan. 5, held that some two hundred Connecticut labor union members must pay $252,130.09 damages under the Sherman anti-trust law for a nation-wide boycott of D. E. Loewe & Co., Danbury, Conn., hat manufacturers, who refused to unionize their shops. The bank accounts and homes of many of the men already are under attachment to pay the judgment, and the next step probably will be foreclosure.

Leading lawyers of Congress disagreed today on whether this decision meant that union workmen would be liable in the future for damages on account of boycotts. Some hold that the Clayton anti-trust law, passed last year after this suit had been tried, would make another such prosecution impossible.

It was in the Danbury hatters' case that the Supreme Court decided in 1908 that labor unions were subject to the terms of the Sherman anti-trust law, and sent the suit back to the New York Federal courts for trial. The judgment, the largest ever before the court under the Sherman law, as well as the vigorous defense of the union men, attracted widespread attention to the litigation.

The decision of the court was unanimous. Justice Holmes, announcing the decision said:

"It requires more than the blindness of justice, not to see that many branches of the United Hatters and the Federation of Labor, in pursuance of a plan emanating from headquarters, made use of such lists (unfair dealers) and of the primary and secondary boycott in their efforts to subdue the plaintiffs to their demands. The union label was used and a strike of the plaintiffs' employees was ordered and carried out to the same end and the purpose to break up the plaintiffs' commerce affected by the quality of the acts."

This left the controversy, he added, narrowed down to the responsibility of the defendants for what was done by the labor organizations. The defendants were laboring men as a rule not employed by Loewe & Co., but living in nearby towns, and a few were national officials of the hatters' union. On the question of responsibility, the justice said:

"The court in substance instructed the jury that if these members paid their dues and continued to delegate authority to their officers unlawfully to interfere with the plaintiffs' interstate commerce in such circumstances that they knew or ought to have known, and such officers were warranted in the belief that they were acting in the matters within their delegated authority, then such members were jointly liable, and no others. It seems to us, that this instruction sufficiently guarded the defendants' rights, and that the defendants got all that they were entitled to ask in not being held chargeable with knowledge as matter of law."

The damages, which under the law were three-fold the injury suffered, were approved over the objection that some of them accrued since the action began.

Exporters Oppose Ship Purchase Bill

As a result of a canvass just completed by the "American Exporter" of 2447 leading exporters of the country, 559 replies were received, of which 85 expressed approval of the Government ship purchase bill, 20 were in favor under certain conditions, 229 were opposed, while the balance who answered excused themselves from expressing an opinion, because of unfamiliarity with the bill, a desire not to go on record, or because their export shipping is handled for them by others.

The canvass was made by mail beginning December 17, and ending January 4, thus being completed before the debate on the measure began in the Senate. Those asked to express their views were 1196 manufacturers known to be engaged in or seeking export trade, and 1257 export commission houses, manufacturers' export agents, New York buying offices for foreign freight forwarders, and included all members of the American Manufacturers' Export Association, the American Exporters & Importers' Association and a large portion of the Merchants' Association. It included firms in practically every State of the union, and, among manufacturers, makers of everything from toothpicks to locomotives.

None of those invited to express their views were ship owners. The terms shipping and exporting are often confused in discussing oversea trade, hence emphasis is laid on the fact that the views gathered are those of the men who pay the freight and depend on the shipping facilities offered and not those of the owners or agents of ships. Those who were asked to give their views were the very people who would supposedly benefit from the operation of the bill, and their indifference and actual opposition by a vote of more than two to one is considered significant.

As the vote shows, the experience of shippers is that the thirteen lines to South America and the numerous lines to Central America have provided and do provide ample facilities. Nevertheless many who testify to that fact state that they are in favor of the bill. In addition to those who favored the bill, there were those who gave qualified approval to Government competition with private capital and Government ownership. Those qualified answers were in several cases somewhat obscure, in some cases expressing approval purely as a war emergency measure, the Government to withdraw when the emergency was to pass, while others expressed approval provided subsidies cannot be paid.

CONTRACT PRICE

Sewage Collecting System—North Plainfield, N. J. — Bids were received, Dec. 8, by the Borough of North Plainfield for constructing a sewage collecting system (Contract No. 1) from (A) Engineer's Estimate (B) Harrison-Burton Co., New York, N. Y.; (C) John C. Shrade, Inc., Brooklyn, N. Y.; (D) H. C. Brooks Co., Martinsburg, W. Va.; (E) Frank Puglia, Paterson, N. J.; (F) D. Donnegan Co. and F. N. Lewis, Brooklyn, N. Y.; (G) Cantrell Construction Co., Philadelphia, Penn.; (H) Peekskill Construction Co., Peekskill, N. Y.; (I) Cauldwell-Wingate Co. and Atlantic Construction & Supply Co., New York, N. Y.; (J) Burke & Bonham, Inc., Plainfield, N. J.; (K) Joseph L. Sigretto & Co., Woodhaven, N. Y.; (L) Kelly-McFeeley Co., Camden, N. J.; (M) Bruno Pizzimenti, Seneca Falls, N. Y.; (N) Fusco Construction Co., Newark, N. J.; (O) Schneider Stelle & Co., New Brunswick, N. J.; (P) Joseph Johnson's Sons, West New Brighton, N. Y.; (Q) Weldon Contracting Co., Rahway, N. J.; (R) Cenedella & Co., Milford, Mass.; (S) Pasquale Mauriella, Orange, N. J., A. D. Ambrosio & Co., Hartford, Conn. The item bids were as follows:

CONTRACT 1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
200 lin.ft. 8-in. vitrified pipe sewers, 0-6 ft. deep	$0.47	$0.44	$0.40	$0.45	$0.45	$0.46	$0.41	$0.47	$0.40	$0.56	$0.70	$0.53	$0.35	$0.50	$0.42	$0.50	$0.54	$0.60	$0.76
10,000 lin.ft. 8-in. vitrified pipe sewers, 6-8 ft. deep	0.59	0.44	0.47	0.45	0.50	0.50	0.50	0.57	0.48	0.76	0.70	0.68	0.43	0.52	0.45	0.58	0.65	0.75	0.92
4000 lin.ft. 8-in. vitrified pipe sewers, 8-10 ft. deep	0.73	0.57	0.59	0.65	0.80	0.60	0.73	0.79	0.70	0.89	0.85	0.96	0.65	0.67	0.63	0.80	0.78	1.10	1.60
1000 lin.ft. 8-in. vitrified pipe sewers, 10-12 ft. deep	0.92	0.82	0.85	0.85	1.00	0.90	0.92	1.10	1.06	1.15	1.15	1.20	0.95	0.90	0.94	1.15	1.10	1.50	1.74
100 lin.ft. 8-in. vitrified pipe sewers, 12-14 ft. deep	1.17	1.40	0.97	1.35	1.30	0.96	1.33	1.40	1.25	1.37	1.25	2.02	1.45	1.25	1.94	1.45	1.50	2.25	1.94
100 lin.ft. 8-in. vitrified pipe sewers, 14-16 ft. deep	1.47	2.00	1.50	1.85	1.75	1.06	1.67	1.74	1.67	1.60	1.50	2.47	2.05	1.40	2.24	2.02	2.00	2.75	2.19
100 lin.ft. 15-in. vitrified pipe sewers, 0-6 ft. deep	0.94	0.89	0.77	1.00	0.80	0.90	0.91	1.03	0.79	0.96	1.15	0.94	0.80	1.00	0.79	1.02	1.25	1.00	1.50
100 lin.ft. 15-in. vitrified pipe sewers, 6-8 ft. deep	1.07	0.95	0.85	1.15	0.85	1.00	1.04	1.17	0.95	1.20	1.25	1.00	1.25	1.15	1.05	1.17	1.50	1.25	1.55
200 lin.ft. 15-in. vitrified pipe sewers, 8-10 ft. deep	1.25	1.05	1.05	1.40	1.25	1.20	1.35	1.46	1.25	1.46	1.50	1.42	1.65	1.35	1.57	1.44	1.60	2.00	1.65
600 lin.ft. 15-in. vitrified pipe sewers, 10-12 ft. deep	1.49	1.15	1.30	1.60	1.65	1.30	1.57	1.80	1.45	1.75	1.60	1.72	2.00	1.50	1.77	1.80	2.00	2.35	1.85
800 lin.ft. 15-in. vitrified pipe sewers, 12-14 ft. deep	1.79	1.40	1.45	1.90	1.90	1.50	2.00	2.03	1.75	2.05	1.75	2.58	2.65	1.80	2.17	2.50	2.50	2.85	2.30
900 lin.ft. 15-in. vitrified pipe sewers, 14-16 ft. deep	2.15	2.00	2.00	2.25	2.15	1.80	2.17	2.36	2.20	2.37	2.25	3.06	3.40	2.25	2.39	2.75	3.00	3.40	2.80
300 lin.ft. 15-in. vitrified pipe sewers, 16-18 ft. deep	2.59	2.50	2.60	2.75	2.50	2.25	3.00	2.82	2.75	2.71	2.40	3.36	4.25	3.00	3.23	3.20	3.50	4.10	2.95
200 lin.ft. 15-in. vitrified pipe sewers, 18-20 ft. deep	3.10	3.00	3.00	3.35	3.25	2.50	3.90	3.30	3.50	3.11	3.00	3.90	5.15	4.00	4.22	4.00	3.80	4.90	3.75
100 lin.ft. 15-in. vitrified pipe sewers, 20-22 ft. deep	3.70	4.00	3.50	4.40	4.00	2.50	5.08	3.92	4.00	3.60	3.75	4.48	5.85	5.00	6.20	4.75	4.00	5.50	4.75
150 lin.ft. 24-in. vitrified pipe sewers, 0-6 ft. deep	2.00	1.48	1.60	1.80	1.65	1.55	1.72	1.75	1.60	1.74	1.79	1.82	1.75	1.47	1.82	1.90	2.00	1.75	2.45
200 lin.ft. 24-in. vitrified pipe sewers, 6-8 ft. deep	2.17	1.58	1.75	1.95	1.75	1.75	1.89	1.90	1.80	2.03	2.25	2.02	1.95	1.77	1.97	2.05	2.25	1.75	2.65
500 lin.ft. 24-in. vitrified pipe sewers, 8-10 ft. deep	2.39	1.68	1.90	2.15	1.90	2.00	2.09	2.26	2.20	2.38	2.60	2.37	2.30	2.00	2.44	2.21	2.53	1.75	2.70
900 lin.ft. 24-in. vitrified pipe sewers, 10-12 ft. deep	2.68	1.88	2.20	2.35	2.25	2.50	2.25	2.60	2.60	2.73	3.00	2.73	2.65	2.30	2.84	2.56	3.20	2.00	2.80
1300 lin.ft. 24-in. vitrified pipe sewers, 12-14 ft. deep	3.05	2.10	2.40	2.65	2.50	2.70	2.97	2.88	3.00	3.12	3.25	3.46	3.35	2.87	3.24	3.05	3.45	3.00	3.35
1900 lin.ft. 24-in. vitrified pipe sewers, 14-16 ft. deep	3.42	2.50	2.90	3.05	2.85	3.00	3.30	3.21	3.50	3.50	3.60	3.86	4.35	3.25	3.84	3.40	3.95	4.00	3.45
2700 lin.ft. 24-in. vitrified pipe sewers, 16-18 ft. deep	4.05	3.00	3.50	3.60	3.25	3.50	3.50	3.72	4.00	3.92	4.00	4.46	5.15	4.85	5.00	4.25	4.40	5.00	4.25
1700 lin.ft. 24-in. vitrified pipe sewers, 18-20 ft. deep	4.67	3.50	3.95	4.20	4.00	3.50	4.65	4.17	4.75	4.37	4.50	5.04	6.10	5.87	7.50	4.60	4.90	5.50	4.60
100 lin.ft. 24-in. vitrified pipe sewers, 20-22 ft. deep	5.40	4.00	4.70	5.15	5.00	3.50	5.50	4.74	5.50	4.85	5.50	5.67	7.05	7.00	10.00	5.00	5.58	5.50	5.50
600 5-in. Y branches on 8-in. pipe	0.60	0.40	0.30	0.45	0.40	0.22	0.50	0.56	0.25	0.40	0.40	0.35	0.40	1.00	0.48	0.50	0.70	0.40	1.75
100 5-in. Y-branches on 15-in. pipe	0.98	0.85	0.90	1.10	1.50	0.65	1.30	1.12	0.70	1.00	1.30	1.02	1.00	1.50	1.26	1.50	1.50	0.75	2.50
250 5-in. Y-branches on 24-in. pipe	2.01	2.10	2.00	2.75	3.00	1.68	3.00	2.24	2.00	1.50	3.40	2.29	2.00	3.00	3.50	3.75	3.25	2.00	3.95
800 5-in. ⅛-bends	0.36	0.25	0.20	0.30	0.40	0.14	0.35	0.45	0.22	0.40	0.25	0.35	0.20	0.50	0.24	0.85	0.30	0.40	0.50
350 5-in. Y-branches	0.61	0.35	0.40	0.75	0.75	0.25	0.50	0.73	0.30	0.70	0.30	0.65	0.40	0.50	0.47	0.45	0.30	0.60	0.75
2000 lin.ft. 5-in. vitrified pipe risers	0.76	0.75	0.60	0.50	0.85	1.00	0.55	0.34	0.70	0.60	0.80	0.81	0.75	1.00	0.60	0.75	0.70	0.60	0.70
5000 lin.ft. 5-in. house connections	0.46	0.40	0.40	0.45	0.30	0.60	0.40	0.50	0.55	0.40	0.40	0.49	0.35	0.42	0.50	0.65	0.35	0.65	0.58
1700 lin.ft. laying 6-in. c.i. force main	0.32	0.30	0.30	0.35	0.35	0.35	0.38	0.67	0.29	0.45	0.60	0.30	0.30	0.50	0.28	0.90	0.40	0.45	0.95
720 lin.ft. laying 24-in. c.i. pipe line in balustrade	0.82	0.50	0.65	1.00	0.85	1.00	0.92	0.95	0.50	1.00	2.00	1.16	1.25	1.75	0.86	7.00	0.70	1.75	2.00
500 lin.ft. laying 24-in. c.i. pipe line 0-6 ft. deep	1.15	0.75	0.95	1.25	0.85	1.00	1.14	1.40	0.75	1.00	2.00	1.04	1.75	1.75	0.97	5.00	1.10	1.75	2.89
700 lin.ft. ½-in. galvanized-iron pipe line	0.25	0.25	0.20	0.25	0.35	0.20	0.34	0.45	0.25	0.25	0.30	0.24	0.30	0.30	0.15	0.25	0.30	0.50	0.10
160 tons c.i. pipe	23.00	22.50	22.00	22.50	30.00	22.00	23.50	40.00	22.00	24.00	25.00	20.70	22.00	25.00	23.00	24.00	24.00	25.00	27.00
5 tons c.i. specials	55.00	57.00	60.00	60.00	75.00	55.00	72.00	90.00	58.00	65.00	65.00	55.00	55.00	50.00	60.00	65.00	80.00	80.00	90.00
85 manholes	55.00	60.00	45.00	54.00	48.00	65.00	70.00	45.00	70.00	40.00	45.00	49.16	50.00	60.00	45.00	44.00	52.00	70.00	45.00
17 flushtanks	70.00	65.00	90.00	70.00	85.00	75.00	80.00	84.00	81.00	75.00	75.00	80.85	75.00	100.00	70.00	88.00	80.00	100.00	100.00
Sewage pumping station, West End Ave. near Green Brook	2793.00	1839.00	4200.00	2860.00	2900.00	4750.00	2656.00	2400.00	3100.00	3000.00	2000.00	2941.00	2900.00	3800.00	3500.00	3000.00	3700.00	2500.00	5000.00
Machinery in sewage pumping station (lump sum)	2960.00	3740.00	3200.00	3740.00	3700.00	4500.00	3960.00	3900.00	4000.00	3500.00	3800.00	3633.00	3700.00	4700.00	3400.00	3750.00	3600.00	3900.00	4000.00
1000 ft. b.m. lumber for foundations	45.00	30.00	40.00	40.00	65.00	30.00	50.00	45.00	50.00	40.00	40.00	50.00	50.00	50.00	48.00	40.00	50.00	65.00	45.00
200 lin.ft. piles	0.50	0.30	0.50	0.50	1.00	0.50	1.50	0.90	0.40	0.70	0.50	1.00	1.00	0.50	0.80	0.40	1.00	0.50	10.25
10,000 ft. b.m. sheathing left in place	35.00	30.00	20.00	30.00	45.00	20.00	25.00	28.00	35.00	35.00	30.00	50.00	40.00	50.00	35.00	30.00	40.00	35.00	45.00
500 cu.yd. excavation and embankment	1.00	0.70	1.00	2.00	3.00	1.00	2.50	0.95	1.75	1.00	0.60	1.00	1.50	0.60	1.50	0.75	0.50	1.00	0.75
100 cu.yd. extra earth excavation	0.60	1.50	1.00	1.00	2.00	0.50	1.00	0.56	0.60	0.60	0.90	0.80	2.00	0.60	1.50	0.75	2.00	1.00	0.75
100 cu.yd. rock excavation	3.00	2.00	3.00	1.50	2.50	3.00	2.50	2.80	4.00	3.00	3.00	3.50	1.50	1.00	2.50	2.50	3.50	1.00	4.00
1000 cu.yd. earth filling	1.00	0.60	0.30	0.50	0.40	0.50	0.40	0.65	0.60	0.25	0.30	0.50	1.00	1.00	0.75	0.60	1.00	0.60	0.75
50 cu.yd. stone and gravel filling	2.00	2.00	2.00	2.00	3.00	1.00	2.30	1.15	2.75	1.00	2.50	1.25	2.00	2.00	2.75	2.20	1.00	2.50	2.00
200 cu.yd. concrete	9.00	7.00	6.50	6.00	7.00	6.00	6.00	7.25	7.00	10.00	5.50	8.50	8.00	10.00	8.00	7.00	8.00	7.00	7.85
260 cu.yd. concrete balustrade	20.00	17.50	7.50	8.00	8.00	6.50	9.50	11.00	9.00	12.00	14.00	12.00	10.00	12.00	15.00	12.00	9.00	9.00	20.00
8000 lb. steel reinforcement	0.04	0.04	0.03	0.04	0.05	0.025	0.03	0.05	0.04	0.03	0.025	0.03	0.05	0.05	0.03	0.04	0.04½	0.05	0.08
11,700 sq.yd. resurfacing macadam	0.30	0.35	0.20	0.21	0.20	0.30	0.40	0.34	0.50	0.40	0.30	0.30	0.25	0.37	0.30	0.35	0.30	0.35	0.60
Extended totals	$86,819	$72,598	$72,772	$77,322	$78,102	$78,788	$84,314	$85,924	$86,899	$87,073	$87,393	$92,309	$93,042	$93,148	$94,314	$95,954	$98,300	$100,012	$111,792

Contracts to Be Let

Bids received until Jan. 21, 1915.

Building at State Hospital

Binghamton, N. Y.

Sealed proposals for Construction, Heating, Plumbing and Electric work for new building for Chronic Patients; for New Boiler, Stack, etc., at the Binghamton State Hospital, Binghamton, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until two-thirty p.m., Jan. 21st, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and endorsed, and shall be accompanied by a certified check in the sum of 5% of the amount of bid for Construction work; in the sum of $1250 for Heating work; in the sum of $500 for Plumbing work; in the sum of $250 for Electric work, and in the sum of 5% of the amount of bid for New Boiler, Stack, etc. The contractors to whom awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty (30) days after official notice of award of contract, and in accordance with the terms of Specifications Nos. 2100, 2114, 2115, 2116 and 2191. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Binghamton State Hospital, at the New York Office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice, and upon the desposit of certified check in the sum of $10.00 made payable to the State of New York, for each division of the work, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher.

Dated Albany, N. Y., December 23, 1914.

LEWIS M. FARRINGTON,
Assistant Secretary.

⁂

Bids received until Jan. 20, 1915.

Dredging in the Harbor of Baltimore

DEPARTMENT OF PUBLIC IMPROVEMENTS,
SUB-DEPARTMENT: HARBOR BOARD.

Baltimore, Md.

PROPOSALS FOR DREDGING THE MAIN CHANNEL NORTH FROM LAZARETTO LIGHT TO THE PIERS OF THE TRANSATLANTIC LINERS, all as shown on plans, will be received until 11 o'clock forenoon of Wednesday, January 20th, 1915.

Proposals must be addressed to the Board of Awards and sent to the City Register's Office, City Hall, accompanied by a certified check of the bidder for $2,000.00 drawn on a Clearing House Bank and payable to the Mayor and City Council of Baltimore.

The right is reserved to reject any or all proposals. Bond in the amount of the contract price will be required for the proper performance of the contract.

Approximate quantity of material to be dredged is 2,000,000 cubic yards.

Approved: O. F. LACKEY,
JOHN HUBERT, Harbor Engineer.
Acting President, Board of Awards.

Plans and specifications can be obtained at the office of the Harbor Engineer, City Hall, Baltimore, Md.

⁂

DEPARTMENT OF THE INTERIOR, U. S. RECLAMATION SERVICE, Washington, D. C., December 31, 1914.—Sealed proposals will be received at the office of the U. S. Reclamation Service at Provo, Utah, until 2 o'clock P. M., February 3, 1915, for construction involving 158,000 yards of excavation, 7,000 yards of concrete and other items. The work is located near Payson City, Utah, near the San Pedro, Los Angeles and Salt Lake R.R. and the Tintic Branch of the Denver and Rio Grande R.R. For particulars, address United States Reclamation Service, Provo, Utah, or Washington, D. C. A. P. DAVIS, Director and Chief Engineer.

Bids received until Jan. 12, 1915.

Cottages, etc. at Training School

Yorktown Heights, N. Y.

Sealed proposals for Construction, Heating, Plumbing and Electric work for Seven Cottages; for Construction work of Power House and Coal Pocket (this does not include boiler plant, plumbing or electric work) and for Water Supply System, for the New York State Training School for Boys, Yorktown Heights, N. Y., will be received by Mr. William B. Osgood Field, President of the Board of Managers of the New York State Training School for Boys, at the Department of Architecture, Room 1224, Woolworth Bldg., New York City, until Tuesday, January 12, 1915, at noon, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and endorsed, and shall be accompanied by certified check in the sum of 5% of the amount of bid for Construction, Heating and Plumbing work; in the sum of $150 for Electric work; in the sum of $1500 for Power House and Coal Pocket, and in the sum of $450 for Water Supply System. The contractors to whom awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty (30) days after official notice of award of contract, and in accordance with the terms of specifications Nos. 2098, 2192, 2193, 2194, 2099 and 2107. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York office of the Department of Architecture, Room No. 1224, Woolworth Building; at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, upon reasonable notice and upon the deposit of certified check in the sum of $10 made payable to the State of New York, for each division of the work, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher.

Bids received until Jan. 19, 1915.

Earth Levee

Augusta, Ga.

SEALED PROPOSALS, addressed to the City Council of Augusta, Georgia, will be received by the River and Canal Commission at its office, 747 Broad Street, Augusta, Georgia, at 12 o'clock Tuesday, January 19th, for furnishing all labor and outfit and constructing section No. 4 of the earth levee at Augusta, Georgia, requiring 250,000 cubic yards of earth fill and 30,000 cubic yards of excavation. This will be scraper or wagon work.

Also at the same time and place bids will be received for the construction of:

960 lineal feet of reinforced concrete box sewer 7 feet by four and one-half feet.
420 lineal feet of 48-inch brick sewer.
530 lineal feet of 42-inch brick sewer.
760 lineal feet of 36-inch brick sewer.
330 lineal feet of 24-inch pipe sewer.

Certified check for $300.00 will be required with each bid.

The City reserves the right to reject any and all bids.

A bond will be required from the successful bidder.

Plans and specifications can be had on application to the undersigned.

NISBET WINGFIELD, Chief Engineer,
747 Broad St., Augusta, Ga.

⁂

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., January 2, 1915.—SEALED PROPOSALS will be opened in this office at 3 p.m., March 6, 1915, for the construction complete (including mechanical equipment, except elevator and approaches) of the United States Post Office and Court House at Lawton, Oklahoma, Three story and basement building; ground-area, 6,700 square feet; fireproof construction; stone and brick facing; tin roof. Drawings and specifications may be obtained after January 23, 1915, from the Custodian of site at Lawton, Oklahoma, or at this office, in the discretion of the Supervising Architect. O. WENDEROTH, Supervising Architect.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

The Record of Building Operations

Returns from 154 cities in the United States have been received and compiled regarding their building operations for 1914, and the previous year. The figures show that building is much better than generally supposed, especially in the Central States, where it is considered that in 154 cities having a population of 24,664,539, about half the total urban population of the country, plans were filed for buildings estimated to cost $771,017,852 in 1914, while operations calculated to cost $838,945,302 were planned in 1913.

In the Eastern States, 59 cities, the plans filed in 1914 called for $326,957,204, compared with $366,084,621 in 1913.

In 46 cities in the Central States the operations in 1914 were estimated at $290,281,422, compared with $292,128,028 in the previous year.

In 30 cities in the Southern States, the operation last year called for $57,532,371, compared with $66,572,691 in 1913.

On the Pacific Coast a heavy loss is noted, made up chiefly in one city. In 19 cities in the Western States the building returns in 1914 were $96,246,855, and in 1913 $114,159,962.

EASTERN STATES

Population Census of 1910	City	Building 1914	Operations 1913
100,253	Albany, N. Y.	$6,294,738	$9,051,758
52,127	Altoona, Penn.	1,077,725	1,016,428
31,267	Amsterdam, N. Y.	1,250,000	1,500,000
34,668	Auburn, N. Y.	352,432	301,104
558,485	Baltimore, Md.	11,823,376	9,110,824
48,443	Binghamton, N. Y.	2,225,646	1,942,790
670,585	Boston, Mass.	20,520,555	17,532,330
102,054	Bridgeport, Conn.	3,665,432	2,949,177
56,878	Brockton, Mass.	1,215,689	1,240,960
423,715	Buffalo, N. Y.	10,709,006	12,108,243
104,839	Cambridge, Mass.	6,300,105	6,588,685
22,754	Central Falls, R. I.	201,380	373,455
32,452	Chelsea, Mass.	722,150	440,775
38,537	Chester, Penn.	1,221,200	623,000
21,839	Cumberland, Md.	333,163	645,018
28,523	Easton, Penn.	851,000	910,000
34,371	East Orange, N. J.	1,763,586	1,712,981
73,409	Elizabeth, N. J.	1,346,933	2,479,664
64,186	Harrisburg, Penn.	1,269,500	1,467,040
98,915	Hartford, Conn.	4,044,481	5,795,351
44,115	Haverhill, Mass.	1,149.935	1,015,115
70,324	Hoboken, N. J.	768,342	492,260
57,730	Holyoke, Mass.	1,183,271	1,379,882
267,779	Jersey City, N. J.	3,501,505	5,551,245
18,659	Kearney, N. J.	535,755	729,978
47,227	Lancaster, Penn.	689,956	688,629
85,892	Lawrence, Mass.	1,088,730	741,560
70,063	Manchester, N. H.	1,586,347	1,652,889
23,150	Medford, Mass,	1,474,495	1,621,047
347,469	Newark, N. J.	9,472,409	16,317,973
96,652	New Bedford, Mass.	3,039,736	3,067,700
43,916	New Britain, Conn.	1,214,840	1,042,325
133,605	New Haven, Conn.	4,379,842	3,620,061
27,149	Newport, R. I.	565,466	1,049,128
28,867	New Rochelle, N. Y.	617,055	861,128
4,766,883	New York, N. Y.		
	Bronx	20,296,843	20,072,489
	Brooklyn	38,366,890	30,720,101
	Manhattan	45,470,965	72,970,685
	Queens	18,311,450	17,507,955
	Richmond	2,272,898	3.377,193
30,445	Niagara Falls, N. Y.	1,222,727	1,571,355
54,773	Passaic, N. J.	857,349	953,264
125,600	Paterson, N. J.	1,544,036	1,520,914
1,549,008	Philadelphia, Penn.	34,940,980	40,133,860
533,905	Pittsburgh, Penn.	18,194,682	15,353,848
20,550	Plainfield, N. J.	549,213	911,750
27,936	Poughkeepsie, N. Y.	692,040	1,077,785
32,642	Quincy, Mass.	1,417,443	1,158,022
96,071	Reading, Penn.	1,147,850	848,850
218,149	Rochester, N. Y.	8,733,257	9,634,124
129,867	Scranton, Penn.	3,409,920	1,430,231
88,926	Springfield, Mass.	4,905,034	5,303,620
28,836	Stamford, Conn.	1,601,231	1,305,100
137,249	Syracuse, N. Y.	2,838,973	4,521,198
96,815	Trenton, N. J.	1,736,502	2,068,093
76,813	Troy, N. Y.	480,880	2,566,178
74,419	Utica, N. Y.	1,791,482	4,452,947
27,834	Waltham, Mass.	590,490	472,655
67,105	Wilkes-Barre, Penn.	1,145,209	1,922,348
18,924	Wilkinsburg, Penn.	433,400	385,435
31,860	Williamsport, Penn.	255,335	686,995
145,986	Worcester, Mass.	4,808,353	4,902,613
44,750	York, Penn.	485,791	634,510
12,386,243		$326,957,204	$366,084,621

CENTRAL STATES

Population Census of 1910	City	Building 1914	Operations 1913
69,067	Akron, Ohio	$3,733,500	$5,226,925
29,807	Aurora, Ill.	985,921	783,865
45,166	Bay City, Mich.	404,135	391,765
25,768	Bloomington, Ill.	298,000	560,200
50,217	Canton, Ohio	1,405,445	1,006,025
32,811	Cedar Rapids, Iowa	1,788,000	1,816,000
2,185,183	Chicago, Ill.	83,262,110	89,169,077
363,591	Cincinnati, Ohio	8,785,158	8,331,327
560,663	Cleveland, Ohio	27,308,960	23,851,160
181,511	Columbus, Ohio	6,895,061	5,508,358
27,871	Danville, Ill.	467,504	421,268
43,028	Davenport, Iowa	1,872,172	1,428,921
116,577	Dayton, Ohio	2,642,569	4,000,000
86,368	Des Moines, Iowa	1,937,144	1,755,759
465,766	Detroit, Mich.	26,845,225	30,199,758
78,446	Duluth, Minn.	2,877,803	4,097,221
58,547	East St. Louis, Ill.	970,368	1,021,118
24,978	Evanston, Ill.	2,318,695	2,069,741
38,550	Flint, Mich.	800,000	500,000
63,933	Fort Wayne, Ind.	2,347,885	2,130,972
112,571	Grand Rapids, Mich.	3,621,919	4,168,000
35,279	Hamilton, Ohio	501,856	484,855
233,650	Indianapolis, Ind.	7,792,808	9,361,973
82,331	Kansas City, Kan.	1,076,563	1,252,859
248,381	Kansas City, Mo.	17,204,970	10,578,193
20,081	LeFayette, Ind.	735,000	191,014
43,973	Lincoln, Neb.	1,003,287	1,678,350
25,531	Madison, Wis.	1,374,634	1,372,882
378,857	Milwaukee, Wis.	9,783,921	13,619,559
301,408	Minneapolis, Minn.	15,214,525	12,857,935
24,199	Moline, Ill.	959,524	1,624,697
16,185	Norwood, Ohio	689,011	813,340
19,444	Oak Park, Ill.	2,311,490	2,344,393
124,096	Omaha, Neb.	4,610,456	4,110,733
66,950	Peoria, Ill.	3,269,220	2,588,517
22,324	Richmond, Ind.	400,000	500,000
77,403	St. Joseph, Mo.	627,574	876,003
687,029	St. Louis, Mo.	12,568,584	15,350,012
214,744	St. Paul, Minn.	13,651,986	9,441,221
50,510	Saginaw, Mich.	679,755	524,019
47,828	Sioux City, Iowa	1,972,952	2,076,058
51,678	Springfield, Ill.	1,056,320	804,014
40,384	Superior, Wis.	1,541,619	1,574,857
168,497	Toledo, Ohio	6,085,182	5,886,291
43,684	Topeka, Kan.	547,280	928,767
79,066	Youngstown, Ohio	3,055,221	2,849,006
7,763,931		$290,281,422	$292,128,028

SOUTHERN STATES

Population Census of 1910	City	Building 1914	Operations 1913
18,762	Asheville, N. C.	$776,017	$624,863
154,839	Atlanta, Ga.	4,637,352	5,110,324
20,640	Beaumont, Tex.	712,864	303,880
132,685	Birmingham, Ala.	3,143,250	5,966,851
34,014	Charlotte, N. C.	1,041,777	1,490,371
44,604	Chattanooga, Tenn.	1,057,087	1,046,930
20,554	Columbus, Ga.	487,516	428,174
52,270	Covington, Ky.	553,480	529,333
92,104	Dallas, Tex.	5,243,610	8,476,080
18,241	Durham, N. C.	854,684	252,105
39,279	El Paso, Tex.	1,934,697	1,341,264
23,975	Fort Smith, Ark.	158,464	446,782
73,312	Fort Worth, Tex.	2,181,931	2,113,553
31,161	Huntington, W. Va.	1,153,497	1,175,520
57,699	Jacksonville, Fla.	1,667,470	2,974,652
36,346	Knoxville, Tenn.	408,947	410,698
223,928	Louisville, Ky.	4,389,745	4,034,180
131,105	Memphis, Tenn.	2,946,764	4,094,358
51,521	Mobile, Ala.	573,135	607,145
25,278	Muskogee, Okla.	104,550	338,574
339,075	New Orleans, La.	2,959,751	4,092,828
30,309	Newport, Ky.	172,000	128,000
67,452	Norfolk, Va.	2,014,681	2,554,723
22,982	Pensacola, Fla.	446,719	375,341
127,628	Richmond, Va.	3,283,345	3,132,480
65,064	Savannah, Ga.	1,385,680	1,321,835
28,015	Shreveport, La.	1,270,957	1,352,172
37,782	Tampa, Fla.	1,373,071	1,484,064
18,182	Tulsa, Okla.	1,636,550	1,517,118
331,069	Washington, D. C.	8,962,780	9,270,513
2,349,875		$57,532,371	$66,572,691

WESTERN STATES

Population Census of 1910	City	Building 1914	Operations 1913
23,383	Alameda, Calif.	$345,563	$571,614
40,434	Berkeley, Calif.	1,821,100	2,236,700
17,358	Boise, Idaho	163,055	476,341
29,078	Colorado Springs, Colo.	444,350	411,628
213,381	Denver, Colo.	3,730,458	3,797,148
24,892	Fresno, Calif.	1,122,505	1,776,666
319,198	Los Angeles, Calif.	17,282,881	30,635,921
150,174	Oakland, Calif.	4,619,835	8,569,903
25,580	Ogden, Utah	840,680	894,811
64,205	Oklahoma, Okla.	1,972,442	174,727
30,291	Pasadena, Calif.	2,133,781	2,787,507
207,214	Portland, Ore.	9,334,075	12,972,090
44,696	Sacramento, Calif.	2,329,978	3,416,058
92,777	Salt Lake City, Utah	2,983,246	2,053,860
39,578	San Diego, Calif.	3,116,176	7,135,299
416,912	San Francisco, Calif.	28,177,572	21,036,264
237,194	Seattle, Wash.	12,655,600	9,321,115
104,402	Spokane, Wash.	984,047	3,428,208
83,743	Tacoma, Wash.	2,189,511	2,474,102
2,164,490		$96,246,855	$114,159,962

Building Operations in December

Comparison of building returns from plans filed are most misleading; in fact, they indicate a falling off, which is untrue. In the Eastern States a decrease of $16,000,000 is shown, but December, 1913, was abnormally large, both in Newark and the Borough of Manhattan, New York. The indicated loss in these two cities would about make up for the total loss in all of the Eastern cities from which returns are available. The operations are larger than in November, both 1914 and 1913.

In the Central States there is a loss of slightly more than $3,000,000, while in the Southern cities the loss amounts to a little more than $100,000. In the Western States returns in 1914 were practically the same as last year despite a falling off of $1,500,000 in Los Angeles.

EASTERN STATES

	Month of December	
	1914	1913
Albany, N. Y.	$330,460	$234,353
Baltimore, Md.	506,680	541,805
Boston, Mass.	3,323,862	1,389,260
Bridgeport, Conn.	186,424	236,665
Buffalo, N. Y.	347,000	1,284,000
Elizabeth, N. J.	33,518	140,816
Hartford, Conn.	284,605	260,995
Hoboken, N. J.	1,015	77,120
Jersey City, N. J.	193,735	440,297
Newark, N. J.	306,632	3,185,828
New Haven, Conn.	494,970	227,130
New York, N. Y.		
Manhattan	814,000	14,774,650
Bronx	251,500	1,029,348
Brooklyn	1,390,200	2,957,385
Queens	811,305	1,586,129
Paterson, N. J.	68,630	152,125
Philadelphia, Penn.	1,011,510	1,445,435
Pittsburgh, Penn.	3,473,100	800,248
Reading, Penn.	9,675	3,350
Rochester, N. Y.	363,599	725,185
Scranton, Penn.	1,769,163	150,988
Springfield, Mass.	197,502	495,649
Syracuse, N. Y.	145,403	193,975
Worcester, Mass.	108,540	347,655
Totals	$16,423,028	$32,671,391

CENTRAL STATES

	1914	1913
Akron, Ohio	$136,020	$304,415
Chicago, Ill.	6,214,050	5,934,500
Cincinnati, Ohio	209,045	376,390
Cleveland, Ohio	1,216,775	2,071,780
Columbus, Ohio	1,005,200	432,550
Des Moines, Iowa	48,700	114,600
Detroit, Mich.	1,242,675	1,807,565
Duluth, Minn.	78,975	83,855
Grand Rapids, Mich.	125,750	150,605
Indianapolis, Ind.	219,460	701,469
Kansas City, Kan.	37,425	178,715
Kansas City, Mo.	223,600	472,695
Milwaukee, Wis.	393,410	644,463
Minneapolis, Minn.	521,400	1,148,645
Omaha, Neb.	216,475	149,475
St. Louis, Mo.	379,966	770,233
St. Paul, Minn.	510,640	705,184
Toledo, Ohio	139,945	199,320
Totals	$12,919,511	$16,246,459

SOUTHERN STATES

	1914	1913
Atlanta, Ga.	$154,724	$216,001
Birmingham, Ala.	100,307	172,194
Chattanooga, Tenn.	9,950	48,780
Dallas, Tex.	110,025	238,450
Louisville, Ky.	188,330	137,820
Memphis, Tenn.	52,200	115,346
New Orleans, La.	274,172	202,133
Richmond, Va.	212,502	170,399
Tampa, Fla.	29,300	70,455
Washington, D. C.	433,036	396,957
Totals	$1,564,546	$1,678,535

WESTERN STATES

	1914	1913
Denver, Colo.	$593,510	$59,171
Los Angeles, Calif.	651,639	2,150,951
Oakland, Calif.	278,891	528,681
Portland, Ore.	1,601,355	640,565
Salt Lake City, Utah	1,171,450	137,875
San Diego, Calif.	160,503	403,000
San Francisco, Calif.	717,903	1,956,339
Seattle, Wash.	1,298,165	549,735
Spokane, Wash.	18,700	63,625
Tacoma, Wash.	73,260	114,038
Totals	$6,565,376	$5,603,880

RAILWAYS

West Virginia—Baltimore & Ohio R.R.—According to press reports this company plans to extend its Palatine branch on the east side of Fairmont, W. Va. F. L. Stuart, Baltimore, Md., is Ch. Engr.

Florida—Atlantic Harbor R.R.—This company has been incorporated to construct a railway from Jacksonville to Fort George Island, Fla., about 30 miles. George J. Percival, Atlantic City, N. J., is Pres.

Louisiana—Monroe & Texas R.R.—This company has been incorporated to construct a railway from Monroe, La., through Ouachita, Jackson, Winn., Natchitoches and Sabine parishes to the Sabine River. The officers are F. R. Pierce, Pres., L. Brandt, Vice-Pres., C. L. Chesboro, Secy. and A. B. Pierce, Treas.

+Kentucky—Paducah & Illinois R.R.—According to press reports this company has awarded a contract to MORSE, SHEPHERD & DOUGHERTY, St. Paul, Minn., for double-tracking its railway from Paducah, Ky., to the Ohio River, about 12 miles.

Ohio—Cleveland, Cincinnati, Chicago & St. Louis Ry.—According to press reports, this company is arranging for the construction of extensive railway yards about two miles north of Galion, Ohio. George P. Smith, Cincinnati, Ohio, is Ch. Engr.

Wisconsin—Chicago, Milwaukee & St. Paul Ry.—The Wisconsin Railway Commission recently ordered this company to make various improvements to its line in Milwaukee, Wis. These include grade separation work from 38th St. to Fond du Lac Ave., about 2¼ miles. C. F. Loweth, Chicago, Ill., is Ch. Engr.

Montana—Butte, Boise & San Francisco Ry.—This company plans to start work in the spring on the construction of its proposed railway to connect Butte, Mont., Boise, Idaho and San Francisco, Calif., about 1020 miles. This line will cross the continental divide three times but with no grades exceeding 2% and these for short distances only. The estimated cost of the line from Butte to Boise is about $55,000 per mile. L. O. Leonard, Boise, Idaho, is Pres. Noted May 28.

Idaho—Butte, Boise & San Francisco Ry.—See item under Montana.

+Washington—Chicago, Milwaukee & Puget Sound R.R.—A contract has been awarded by this company, according to press reports, to HANS PEDERSON, Madison Blk., Seattle, for grading its line near Hoquiam, Wash.

Oregon—Valley & Sibletz R.R.—This company which operates a 20-mile railway from Airlie, Ore., plans to construct an additional 10 miles of track in the spring. R. L. Donald, Northwestern Bank Bldg., Portland, Ore., is Mgr.

California—Butte, Boise & San Francisco Ry.—See item under Montana.

ELECTRIC RAILWAYS

Monticello, N. Y.—The Monticello & Middletown Ry. Co. is making surveys and plans to start work soon on the construction of its proposed electric railway to connect Middletown, Wurtsboro, Rock Hill, Bridgeville, Monticello, White Lake and Methel, about 45 miles. Blake A. Mapledoram, Monticello, is Gen. Mgr. and Ch. Engr. Noted Dec. 31.

West Orange, N. J.—The town has granted permission to the Public Service Ry. Co. to construct and operate a street railway extension from the boundary line of West Orange and Orange to Valley St., West Orange. R. E. Danforth, Newark, is Gen. Mgr.

Easton, Penn.—The Council has granted permission to the Easton Transit Co. to reconstruct all its lines on the South Side. Harrison R. Fehr, Allentown, is Pres., Gen. Mgr. and Pur. Agt.

Norristown, Penn.—(Official)—The Reading Transit & Light Co. was recently granted permission to lay a grooved rail on DeKalb, Airy, Brown, Powell and Swede St. The work will be done under the direction of S. Cameron Corson, Borough Engr.

Warren, Penn.—According to press reports a syndicate of Cleveland, Ohio, capitalists plans the construction of an electric railway from Warren to Sharon, to connect with the Cleveland-Youngstown line.

New Castle, Del.—The Wilmington, New Castle & Delaware Ry. Co. is preparing to install about 5½ miles of new road bed on its line. W. E. Meyers, New Castle, is Gen. Supt.

Girard, Ga.—The Columbus R.R. Co. contemplates the construction of an electric railway in Lower Girard to complete the loop in Columbus. John S. Bleeker, Columbus. John S. Bleeker, Columbus, is Mgr.

Macon, Ga.—The Macon Ry. & Light Co. has applied to the City Council for a franchise to extend and relocate its lines in Macon. L. S. Boggs, Macon, is Gen. Mgr.

Rochester, Ind.—The United Public Service Co. has been incorporated to construct an electric railway in Rochester. The incorporators include John E. Beyer, Earl E. Deyer and Charles A. Davis.

Peoria, Ill.—The Illinois Traction System is preparing to double-track its Prospect Heights line in East Bluff. H. J. Vance, Peoria, is Pur. Agt.

Colfax, Iowa—The Des Moines Ry. Co. contemplates the extension of its line from Colfax to Newton. F. M. Harris, Des Moines, is Treas. and Pur. Agt.

Cannon Falls, Minn.—The St. Paul Southern Electric Co. proposes to construct an electric railway to connect Cannon Falls, Zumbrota, Pine Island and White Rock, about 30 miles. W. L. Sonntag, St. Paul, Minn., is Gen. Mgr.

Winsted, Minn.—Plans are being made by the Electric Short Line Ry. Co. for the completion of its electric railway to Winsted. DeKoven Hunter, Minneapolis, is Gen. Mgr.

Omaha, Neb.—The Omaha & Council Bluffs St. Ry. Co. is considering plans for the extension of its Harney line south from the Sixth St. terminus to Gibson. W. A. Smith, Omaha, is Vice-Pres. and Gen. Mgr.

Waco, Tex.—Plans are being prepared by the Southern Traction Co. to construct a one-mile extension south from Elm St. B. B. Stitcher, Dallas, is Gen. Mgr.

Nowata, Okla.—Plans are being considered by the Farmers' St. Car Association, Lincoln, Neb., for the construction of an electric interurban railway from Nowata to Vinita.

Provo, Utah—Plans are being prepared by the Salt Lake & Utah R.R. Co. for the construction of an electric railway to connect Provo, Springville and Payson, about 18 miles. W. C. Orem, Salt Lake City, is Pres. and Gen. Mgr.

Vancouver, Wash.—The Portland, Vancouver & Northern Ry. Co. has been incorporated to construct and operate an electric railway from Vancouver, Wash., to Portland, Ore. Henry Crass, Vancouver is Pres. and George W. Ford, Secy.

San Francisco, Calif.—Plans are being prepared by M. M. O'Shaughnessy, City Engr., for the construction of a municipal electric railway on Church St.

Montreal, Que.—The Montreal & Southern Counties Ry. Co. plans to extend its line to Youville St. in Montreal. W. B. Powell, Montreal, is Vice-Pres. and Gen. Mgr.

Regina, Sask.—The Regina Municipal Ry. Co. plans to construct a 1½-mile extension to its line this spring. D. W. Houston, Regina, is Supt.

LIGHT, HEAT AND POWER

Manchester, N. H.—It is reported that the Manchester Traction, Light & Power Co. is preparing to place its wires underground in the business section of the city. J. Brodie Smith is Vice-Pres. and Gen. Mgr.

✚Lyndonville, Vt. — (Official) — The Village Board has awarded contracts for the hydro-electric equipment for its new power station to: The S. MORGAN SMITH CO., York, Penn., for two 450-hp. Francis type turbines in cast-iron spiral cases, each turbine to be regulated by Woodward oil pressure governor; GENERAL ELECTRIC CO., Schenectady, N. Y., for the complete electrical equipment.

Salem, Mass.—Press reports state that the Salem Electric Lighting Co. will construct an addition to its plant on Peabody St., Salem. S. F. Smith is Mgr. of the company.

New Britain, Conn.—Bids will be received until noon, Jan. 20, by Walter P. Crabtree, Arch., 272 Main St., New Britain, for the construction of a heating plant for the new vocational High School on Bassett St. It will be of brick, one story, 47x79 ft., with a 125-ft. chimney of either radial brick or reinforced concrete. Bids are to be received at the same time for the construction of the school building. Noted Nov. 12 and 26.

★Bath, N. Y.—(Official)—Bids will be received until 11 a.m., Feb. 2, by Joseph A. Goulden, Pres. Bd. of Trustees, New York State Soldiers & Sailors Home, Bath, for alterations to the electric plant at the Home. See advertisement under "Contracts to Be Let."

Buffalo, N. Y.—Press reports state that the Water Committee of the Board of Alderman has recommended awarding the contract for the electrical apparatus in the Porter Ave. pumping station to the Buffalo Electric Construction Co. at $48,900. The estimated cost of the complete plant is $95,000. Noted Dec. 24.

La Salle, N. Y.—The Village Board is considering the establishment of a municipal electric-light plant.

★Letchworth Village (Thiells post office), **N. Y.**—(Official) —Bids will be received until 11 a.m. Jan. 30, by Frank A. Vanderlip, Pres. Bd. of Mgrs., Letchworth Village, for heating, plumbing and electric work for the laundry building, and for the construction heating plant and underground piping, plumbing, drainage and electric work for a power house at the Letchworth Village. See advertisement under "Contracts to Be Let."

Atlantic City, N. J.—(Official)—Bids will be received until 2:30 p.m. Jan. 14, by the Board of City Commissioners for electrical conduits, including approximately the following: 4600 lin.ft. electrical conduit consisting of four "pump log" ducts with top board complete; 35 lin.ft. 2½-in. wrought-iron galvanized pipe; three 2½-in. brass check valves, and eight standard manholes complete. William H. Bartlett is Dir. of Pub. Safety. Frank Shinnen is Ch. of Electrical Bureau.

Branchville, N. J.—The Board of Chosen Freeholders of Sussex County, Newton, is considering the installation of an electric-lighting plant at the almshouse. Equipment with gasoline engine operation is being investigated.

Newark, N. J.—(Official)—The Public Service Electric Co. will establish a power plant to consist of four buildings at Point-no-Point on the Passaic River. The plans include a turbine room, 100x160 ft., a switchhouse, 70x110 ft., and a boiler house 120x160 ft., each to be 100 ft. high. Coal bunkers will be installed in a separate building. The estimated cost of the plant is $200,000. Noted July 2.

Winchester, Va.—It is reported that the Northern Virginia Power Co., Winchester, is considering plans for raising the concrete dam across the Shenandoah River at Millville, to increase the output of its hydro-electric plant at that point. D. M. Swink, Winchester, is Mgr. of the company.

Chester, W. Va.—It is reported that the City Clerk has been authorized to advertise for bids for the construction of a municipal electric-light plant.

✚Wadley, Ga.—The City Council has awarded the contract for the construction of a municipal electric-light plant for which bonds were recently voted, to the SINGLETON SMITH CO., 405 Mulberry St., Macon, Ga.

Adairville, Ky.—It is reported that the village is considering the installation of an electric-light plant, replacing the acetylene-gas plant which was recently burned.

Cleveland, Ohio—Bids will be received until noon, Jan. 22, by the Commissioner of Purchases and Supplies, City Hall, for furnishing electric meters and paper insulated lead covered cable for the municipal light department. F. W. Ballard is Comr. of Heat and Light Dept., 1443 East Third St.

Lorain, Ohio—It is reported that plans for the installation of a municipal electric-light plant, to cost about $125,000, have been completed, and bids will soon be asked. D. D. Lewis is Dir. Bd. of Pub. Serv. Noted Nov. 19.

Lorain, Ohio—(Official)—Bids will be received until noon, Jan. 18, by the Board of Education for installing a heating and ventilating system in the high school building, Washington Ave. and Sixth St. E. Bruell is Clk. of the Bd.

Milford, Ind.—Emil Stroh has been granted a franchise for the installation and operation of an electric-light plant, and will purchase the necessary equipment.

✚Bay City, Mich.—The Electric Light Committee of the City Council has awarded the contract for a new 1200-kw. electrical generator for the municipal electric-light plant to the WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburgh, Penn. William H. Fitzhugh is Secy., Mgr. and Supt. of the plant.

Carbondale, Ill.—Bids will be received until Jan. 21 by James B. Dibelka, State Arch., 29 South LaSalle St., Chicago, Ill., for the construction of a power plant, to cost about $40,000, for the State Normal University, Carbondale. The building will be of brick, one story, 38x51 ft.

Marshfield, Wis.—The American Gas Construction Co., Newton, Iowa, has offered an alternative to the Common Council of Marshfield: (a) To be granted a franchise to build, equip and operate an artificial gas plant as a private utility; (b) to construct the same plant, including 15 miles of gas mains, as a municipal property, at a contract price of $52,000. No decision has yet been announced.

New Richmond, Wis.—The State Railroad Commission has granted permission to the New Richmond Power Co. to issue $10,000 in bonds, the proceeds of which will be used for building new transmission lines and buying some new equipment. O. W. Mosher, New Richmond, is Secy. and Mgr.

Turtle Lake, Wis.—It is reported that plans are being considered for the construction of a municipal electric-light plant.

Mapleton, Minn.—A company has been organized by local business men to take over the electric-light plant owned by C. L. Sellers. The company will be known as the Mapleton Electric Co., and will apply for a 30-year franchise to operate in Mapleton. V. J. Creiner is Pres. and E. Sellers is Mgr. of the new company.

St. Joseph, Mo.—Press reports state that plans are under consideration for the construction of an addition to the boiler house of the plant of Swift & Co. The cost of the improvement is estimated at $100,000. The building will be of reinforced concrete, and six 500-hp. boilers will be installed with room for two more. Alden B. Swift is Local Mgr.

Glenwood, Ark.—It is reported that O. E. Grimes and associates, Tulsa, Okla., have secured options on land along Caddo Creek for the purpose of building a hydro-electric plant capable of developing about 2500-hp. The cost is estimated at $250,000.

Wolfe City, Tex.—The Wolfe City Light Co. has been organized with a capital stock of $6000 to build an electric-light and power plant. M. Tasker is interested.

Mogollon, N. M.—It is reported that the Socorro Mining & Milling Co. will spend about $90,000 in completing its electric power plant at Mogollon.

Sandpoint, Idaho—Press reports state that the Idaho Power & Concentrating Co., Sandpoint, is considering the addition of a hydro-electric unit to its plant.

Soda Springs, Idaho—At a recent special election, the citizens voted in favor of a bond issue of $15,000 to be used for the establishment of a municipal electric-light plant. Paul Tipton is City Clk.

Phœnix, Ariz.—The Falls Power & Electric Co., a coöperative concern composed of farmers residing northeast of this city has obtained a franchise for the construction of an electric transmission line from the Arizona Falls power plant to supply power to a number of irrigation pumping plants and for other industrial purposes.

Oka, Que.—The Bishop of the Monastery of Oka has engaged Fred M. Hoadley, Consult. Engr., Montreal, Que., to report upon the possibilities of building a hydro-electric plant on the river adjacent to the monastery. The energy generated at the proposed plant will be used for all purposes in the institution.

BRIDGES

Beverly, Mass.—The Board of Aldermen is considering two plans for a new bridge over the railway tracks at School St. A steel bridge with concrete floor and concrete covering for the steel work beneath the floor is estimated to cost $7700, while a steel bridge with wood floor and exposed steel can be built for $5800.

Bridgeport, Conn.—Tentative plans have been prepared by Alfred H. Terry, City Engr., for the construction of a bridge over the Pequonnock River between Grand and Arctic St. The estimated cost is $232,150. The plans call for a bridge 50 ft. wide, with a double leaf lift span of 80 ft., and two steel deck spans of 52 ft. each. Mr. Terry has also recommended a new bridge, 60 ft. wide, at East Washington St., to cost about $160,000. The Board of Aldermen is holding these plans in abeyance. Noted Oct. 8.

Cobleskill, N. Y.—At a recent special town meeting, the citizens voted in favor of building a new bridge over Cobleskill Creek.

★✚Atlantic City, N. J.—The Board of Chosen Freeholders of Atlantic County has awarded the contract for the construction of a 386-ft. bridge over Hospitality Creek on the Somers Point-Longport Blvd., to EDWARD FAY & SON, at $25,000. A. H. Nelson, 636 Guarantee Trust Bldg., Atlantic City, is County Engr.

New Castle, Penn.—It is reported that plans are being prepared for a new bridge over Neshannock Creek at South Jefferson St. C. E. Brown is City Engr.

★Baltimore, Md.—(Official)—Bids will be received until noon, Jan. 19, by the State Roads Commission, 601 Garrett Bldg., for about 1.5 miles of sheet asphalt for the Hanover St. Bridge and approaches, Contract No. Bc17-Sec. 6: and at the same time for the construction of two reinforced-concrete bridges over the main branch of the Patapsco River between Baltimore and Anne Arundel Counties, one to have sixteen 30-ft. and one 32-ft. spans; the other to be composed of seven 15-ft. spans. Contract No. Bc17-Secs. 7 and 8. O. E. Weller is Chn. of the State Roads Comn. See advertisement under "Contracts to Be Let."

✚Richmond, Va.—(Official)—The Circuit Court of Henrico County has awarded the contract for the construction of a reinforced concrete bridge over the Chickahominy River between Hanover and Henrico Counties to BERKELEY & SCHMIDT, Richmond, Va. S. P. Waddill is Clk. of Henrico County. Noted Dec. 24.

Fayetteville, N. C.—(Official)—The Commissioners of Cumberland County have postponed indefinitely the matter of building a number of concrete bridges in the county at an estimated cost of from $25,000 to $30,000. R. P. Bolton is Register of Deeds for Cumberland County. Noted Oct. 1 and 22.

Rome, Ga.—The Commissioners of Roads and Revenue of Floyd County have engaged Greiner & Whitman, 1308-1310 Fidelity Bldg., Baltimore, Md., as Engr. in Charge, and William C. Spiker, 1123 Hurt Bldg., Atlanta, Ga., as Associate Engr., to prepare plans and supervise the construction of three bridges, at an estimated total cost of $200,000. Kieffer Lindsey is County Engr. of Floyd County. Noted Dec. 3.

Clearwater, Fla.—The Indian Rocks Realty Co. has been granted a permit to build a bridge over the channel at Indian Rocks. It is proposed to build a steel drawbridge. Noted June 4, 1914.

✚Jacksonville, Fla.—The contract for the construction of a reinforced concrete viaduct over the marsh, Hogan Creek and the tracks of the Seaboard Air Line and the St. Johns River Terminal Co. has been awarded to the HILLYER & SPERRING CO., Jacksonville, at about $120,000. Noted Aug. 7 and Dec. 25, 1913: Aug. 6, 1914.

✚Eufaula, Ala.—The Board of Revenue, of Barbour County, Clayton, has awarded the contract for the construction of a 216-ft. reinforced concrete bridge over Barbour Creek to J. H. SCRUGGS & C. E. ARD, Birmingham, at $6000. R. P. Boyd, Montgomery, is Asst. State Engr. Noted Dec. 10 and 17.

✚Greenville, Miss.—(Official)—The Board of Supervisors of Washington County has awarded the contract for the construction of 18 steel bridges of from 32- to 70-ft. span in the Bogue Phalia Drainage District to the W. T. YOUNG BRIDGE CO., Nashville, Tenn., at $8928. The Morgan Engineering Co., Memphis, Tenn., is Engr. of the district. Noted Oct. 1 and 15, Dec. 17.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Feb. 5, by the Board of Commissioners of Hamilton County, for checkered steel plate covering over eyebars of the lower trusses of the Cleves Bridge Miami and Whitewater Townships. Albert Reinhardt is Clk., Bd. of Comrs.

Columbus, Ohio—(Official)—Bids will be received until noon, Feb. 5, by the Board of Commissioners of Franklin County for constructing the approaches to the Williams Bridge in Perry, Norwich and Franklin Townships, Engineer's Estimate No. 152, and for constructing the Brand Bridge over the north fork of Indian Run, Washington Township, Engineer's Estimate No. 153. John Scott is Clk. of Comrs. Noted Dec. 10 and Jan. 7.

✚Covington, Ind.—(Official)—The Board of Commissioners of Fountain County has awarded the contract for the construction of a steel bridge with concrete abutments and piers, over the Wabash River at Covington, to the VINCENNES BRIDGE CO., Vincennes, Ind., at $28,250. H. W. Newton is County Audr. Noted Dec. 24.

Laporte, Ind.—Bids will be received until Jan. 15, by the Board of Commissioners of LaPorte County for the construction of 12 steel bridges on concrete abutments, ranging from 24 to 46 ft. in length.

✚Danville, Ill.—The City Council has awarded the contract for the construction of a reinforced concrete bridge over the North Fork of the Vermillion River at Bridge St. to J. J. JOBST, Peoria, at $80,000. The bridge will be about 800 ft. long and 40 ft. wide. Noted Sept. 24, Oct. 8, Nov. 12 and Dec. 10.

Pecatonia, Ill.—(Official)—Bids will be received until 1:30 p.m., Jan. 27, by the Town Clerk of Pecatonia, for the construction of two reinforced-concrete bridges, the Slough Bridge, Pecatonia Township, and the Denny Bridge, Seward Township, both in Winnebago County. J. S. Tarbert is Town Clk.

✚Ladysmith, Wis.—The County Highway Commissioner of Rusk County has awarded the contract for a 350-ft. bridge over the Chippewa River to the WAUSAU IRON WORKS, Wausau, Wis., at $9769.

✚Viroqua, Wis.—The County Highway Commissioner of Vernon County has awarded the contract for the construction of a 120-ft. steel bridge over the Kickapoo River near Seeleysburg, to the WORDEN-ALLEN CO., Milwaukee, at $4874.

✚Ottawa, Kan.—The Board of Commissioners of Franklin County has awarded the contract for the construction of a bridge over the Marais des Cygnes River near Richter to the CANTON BRIDGE CO., Kansas City, Mo., at $8985. Noted Nov. 12, Dec. 10 and 31.

✚Yates Center, Kan.—(Official)—The Commissioners of Woodson County have awarded the contract for the construction of the Plum Creek Bridge, Owl Creek Township, to C. A. CRAINER, Yates Center, and for the Pierson Bridge, Eminence Township, to the CANTON BRIDGE CO., Kansas City, Mo. T. T. Davis is County Clk. Noted Dec. 24.

Wayne, Neb.—Bids will be received until Jan. 19 by C. W. Reynolds, Clk. of Wayne County, for the construction of steel or corrugated culverts in the county during 1915.

St. Louis, Mo.—The Sureme Court of Missouri has decided that the Missouri Pacific Ry. must bear the entire expense of constructing a reinforced concrete viaduct at the Chouteau Ave. crossing, in connection with the work of the separation of grades at this point, J. R. Stephens, St. Louis, Mo., is Ch. Engr. of the Missouri Pacific Ry.

Glenwood, Ark.—It is reported that the Board of Commissioners of Pike County, Murfreesboro, is considering a petition to build an additional steel bridge over Caddo Creek at Glenwood. The local bridge committee is composed of K. E. Halliman, William Fagan and M. L. Turner.

San Antonio, Tex.—It is reported that the Commissioners Court of Bexar County has authorized the County Auditor to advertise for the construction of a 70-ft. bridge over the Medina River at the Applewhite crossing. The cost is estimated at $5500.

San Antonio, Tex.—(Official)—We are advised by Ha Helland, City Engr., that the City Council is not at prese considering the construction of a reinforced concrete bridg over the San Antonio River at Garden St. Noted Dec. 24.

✚Pawnee, Okla.—(Official)—The Board of Commissione of Pawnee County has awarded the contract for the constru tion of a steel bridge in the county, to the OREGONI BRIDGE CO., Lebanon, Ohio, and Oklahoma, Okla.

Pueblo, Colo.—Press reports state that bids will be receive until Jan. 18, by John M. Jackson, City Clk., for repairs t the First St. Bridge over the Fountain River.

Chehalis, Wash.—Bids will be received until Feb. 3 by th Commissioners of Lewis County for the construction of thre steel bridges, one wooden bridge and one trestle.

Spokane, Wash.—The Engineering Department of Spokan County has recommended to the County Commissioners th construction of a concrete bridge over the Spokane River a Nine Mile, instead of the steel and wood structure originall contemplated. The latter structure would cost $15,000, whil a concrete bridge will cost $21,000. Charles McClung i Deputy County Engr.

Dallas, Ore.—Polk County has included in its budget fo 1915 the sum of $70,000 to pay its share of the cost of th proposed bridge over the Willamette River between Polk and Marion Counties. The bridge will cost about $210,000, and the expense will be equally shared by the two counties and the city of Salem. Plans were prepared by H. L. Bowlby, State Highway Engr. Noted Aug. 6, Sept. 3 and Dec. 3, under Salem, Ore.

Portland, Ore.—Bids will soon be asked for three concrete bridges on the Columbia Highway in Multnomah County, to span Moffatt, Pierce and Tanners Creeks. H. L. Bowlby, Salem, Ore., is State Highway Engr.

★Portland, Ore.—(Official)—Bids will be reecived until 2 p.m., Feb. 23, by the Columbia River Interstate Bridge Commission, for the construction of the Columbia River Interstate Bridge and approaches. W. N. Marshall is Secy. of the Comn. For details, see advertisement under "Contracts To Be Let." Noted Oct. 16, 1913, Jan. 15 and Nov. 26, 1914.

Glendale, Calif.—The lowest bid received by the City Trustees for the construction of a bridge over Verdugo Wash on Canada Blvd., was that of Mesmer & Rice, Marsh-Strong Bldg., Los Angeles, at $28,200. The work also includes 4400 lin.ft. of protection work. Noted Jan. 29 and Sept. 17.

Fredericton, N. B.—Bids will be received until Jan. 18, by John Morrison, Minister of Pub. Wks., Fredericton, for rebuilding the Great Salmon River Mouth Bridge, Parish of St. Martin's, St. John County, N. B.

Calgary, Alta.—(Official)—Bids will be received until 10 a.m., Feb. 12, by J. M. Miller, City Clk., for furnishing and erecting about $40,000 worth of steel for the superstructure of a bridge over the Bow River at Ninth St., W. There will be four trusses, each 135 ft. long and weighing 400 tons. George Craig is City Engr. Noted June 4, 1914.

WATER SUPPLY—IRRIGATION

Boston, Mass.—Bids will be received until Jan. 20, by the Supply Department, for 725 tons of iron castings and 32 tons of composition castings for the Water Department. D. Frank Doherty, City Hall, is Supt.

✚Boston, Mass.—The contract for 3965 tons of 4- to 30-in. water pipe and specials has been awarded to STANDARD CAST IRON PIPE & FOUNDRY CO., Bristol, Penn., at $85,170. Other bidders were: Florence Iron Works, $85,468; Warren Foundry Co., $92,711; and United States Cast Iron Pipe & Foundry Co., $77,149. D. Frank Doherty is Supt. of Supply Dept. Bids opened Jan. 6. Noted Dec. 31.

Meriden, Conn.—Bids will be received until Jan. 19 by the Board of Public Works for the construction of a pump house complete at Hough Mills. Plans are on file with W. S. Clark, City Engr.

★Bedford Hills, N. Y.—(Official)—Bids will be received until 2 p.m., Jan. 29 by James Wood, Pres. Bd. of Mgrs., New York State Reformatory for Women, Bedford Hills, for constructing a new large open well at Bedford Hills. For details see advertisement under "Contracts to Be Let."

Clyde, N. Y.—According to press reports the Clyde Water Works Co. contemplates selling its water works to the village. W. R. Vrooman is Pres. of the Village.

✚New York, N. Y.—(Borough of the Bronx)—(Official)—The contract for dismantling and transporting pumping engine from the Baldwin station to 179th St. station, has been awarded to CHRISTOPHER NALLY, 710 Columbus Ave., New York, at $6875. Noted Jan. 7.

Port Henry, N. Y.—The citizens plan to spend $12,000 for the enlargement of the water system. A. C. Linden is Clk., Bd, of Trustees.

Peapack, N. J.—The boroughs of Peapack and Gladstone plan to construct a municipal water system.

★Philadelphia, Penn.—(Official)—Bids will be received until Feb. 9 at Room 216 City Hall, Philadelphia, for a sedimentation basin at the Torresdale filters. Plans are on file at Room 701, City Hall, Philadelphia.

✚Philadelphia, Penn.—The contract for c.-i. water pipe, hydrants and specials has been awarded by the Board of Public Works to STANDARD CAST IRON PIPE & FOUNDRY CO., Bristol, at $7000.

✚Reading, Penn.—The following contracts have been awarded by the Council for supplies for the water department: c.-i. pipe and specials to R. D. WOOD & CO., $29,207; meters, THOMPSON METER CO., $11,475; gate valves, EDDY VALVE CO., $2730, and fire hydrants to EDDY VALVE CO., $650.

Takoma Park (Washington post office), **D. C.**—The Water and Sewer Commission has recommended to the Town Council the construction of a reservoir and improvement of the water system. The estimated cost is $10,000. H. Stevens, 208 Union Trust Bldg., Washington, is Engr.

Shadyside, W. Va.—According to press reports an election will soon be held to vote on the question of issuing $45,000 in bonds, the proceeds of which will be used for the construction of a municipal water system. Noted Nov. 19.

Columbus, S. C.—(Official)—Bids will be received until 10 a.m., Jan. 29, by the City Commissioners, for making extensions to the water system. F. C. Wyse is Engr. and Supt. Noted Nov. 26.

Atlanta, Ga.—W. Zode Smith, Gen. Mgr. of the water-works, has recommended to the City Council an expenditure of $500,000 for the installation of two pumps for the water-works.

Clearwater, Fla.—Bids will be received until Jan. 15, by R. T. Daniel, City Clk., for making extensions to the municipal water system. Noted June 11 and Nov. 19.

+Seabreeze, Fla.—The contract for constructing a water system has been awarded to F. S. PERHAM, Jacksonville, Fla., at about $15,000. C. M. Rogers, Daytona, is Engr. Noted July 9.

Tarpon Springs, Fla.—The contract for a 50-hp. Diesel engine and a 500-gal. triplex pump has been readvertised and bids will be received until Jan. 18, by A. F. Albaugh, Pres. of the Council. The J. C. McCrary Co., Atlanta, Ga., is Engr. Noted Dec. 31.

+Binghamton, Tenn.—The contract for making extensions to the water and sewer systems has been awarded to J. W. BLAKE, at $8000.

Dyersburg, Tenn.—(Official)—The city contemplates purchasing a 1,000,000-gal. two-stage centrifugal pump directly connected to a 2300-volt three-phase motor for the water and light department. S. R. Blakeman is Supt.

Louisville, Ky.—Plans have been prepared, according to press reports, for the construction of a 24-in. water main, two miles long, for the Louisville Water Co. The estimated cost is $175,000. W. O. Head is Pres. of the company.

+Cincinnati, Ohio—The contract for c.-i. water pipe and specials has been awarded to UNITED STATES CAST IRON PIPE & FOUNDRY CO., Chicago, Ill., at $54,490. Bids opened Dec. 30. Noted Dec. 24.

+Newark, Ohio—The contract for furnishing 500 meters has been awarded by the Director of Public Service to THOMSON METER CO., Brooklyn, N. Y.

Zanesville, Ohio—(Official)—The W. J. Sherman Co., Nasby Bldg., Toledo, Ohio, has been retained by the city of Zanesville to prepare plans for improvements to the municipal water system. Noted Dec. 24.

+South Bend, Ind.—(Official)—Bids were received Dec. 20, by the Board of Public Works, for c.-i. pipe and specials for 1915, as follows: LYNCHBURG FOUNDRY CO., Lynchburg, Va., for c.-i. pipe from 4- to 12-in., at $21.70 (awarded contract); American Cast Iron Pipe Co., 6- to 24-in., $23.11; Massillon Iron & Steel Co., 6- to 12-in., $22.75; U. S. Cast Iron Pipe & Foundry Co., 4-in., $24., 6-in. and up, $22; R. D. Wood & Co., and Glamigan Pipe & Foundry Co. J. R. Hazinski is City Clk. Noted Dec. 17.

Anna, Ill.—(Official)—Bids will be received until Feb. 3, by E. S. Alden, Pres., Bd. of Local Impvt., for making extensions to the water system. The estimated cost is $8000. Noted Dec. 31.

Ipava, Ill.—The city plans to spend $6000 for the improvement of the water system and for making extensions.

+Iowa Falls, Iowa—The contract for laying water mains and sewer pipe has been awarded to MOORE & MOORE, Waterloo, Iowa, at $23,828. Bids opened Dec. 29. Noted Nov. 26 and Dec. 24.

Linn Grove, Iowa—The installation of a water system is under consideration.

Gilbert, Minn.—Two plans are being considered by the village officials for the installation of a new water supply.

Fort Scott, Kan.—We have been advised that bids will be received in February for the construction of a mechanical filtration plant. Noted Oct. 29 and Dec. 31.

Manhattan, Kan.—Plans are being prepared by Worley & Black, Kansas City, Mo., for the installation of a water system, estimated to cost $50,000. Fred Walter is City Engr.

Broken Bow, Neb.—According to press reports plans have been prepared by Charles F. Sturtevant, Holdredge, for the construction of a water system, estimated to cost $15,000.

Hayti, S. D.—The citizens contemplate installing a municipal water system, estimated to cost $8000.

Billings, Mont.—(Official)—Bonds for $450,000 have been sold, the proceeds of which will be used for the construction of a water system. C. E. Durland is City Engr. Noted Nov. 12 and Dec. 10.

Benton, Ark.—See item under "Sewers."

Gurdon, Ark.—Plans have been prepared and submitted to the Council for the installation of a municipal water, sewer and electric light systems. The estimated cost is $102,000. Bonds have not yet been voted. A. C. Moore, Bartlett Bldg., Joplin, Mo.

Harrison, Ark.—An election called for Dec. 22 has been postponed until March. The question of voting bonds for $90,000, the proceeds of which will be used for the purchase and enlargement of the water system, will be voted on. George C. Frew is Mayor. Noted Nov. 5.

Redrock, Okla.—An election will be held Jan. 28 to vote on the question of issuing about $30,000 in bonds, the proceeds of which will be used for the construction of a municipal water system. The Benham Engineering Co., Oklahoma, Okla., is Engr. Noted Dec. 24.

Alburquerque, N. M.—A report on the installation of a municipal water system has been submitted by the Council Committee. Noted Dec. 24.

Miami, Ariz.—The Inspiration Consolidated Copper Co. plans to build a pumping station for supplying water for its ore plant. A 226,000-gal. steel tank will be erected and a 20-in. pipe line constructed.

Phoenix, Ariz.—The Queen Creek Power & Water Co., recently incorporated by John Schrock, Wichita, Kan., and others, with a capital of $750,000, plans to build an irrigation system near Higley.

Milwaukee, Ore.—The following bids have been received for construction of three miles of water mains to connect with the Bull Run water system: Giebisch & Joplin, Portland, $16,469; James Kennedy Construction Co., $17,272; $16,313; Andrew & Harrar, $17,145; V. R. Dennis, $19,132; Heinicke Bros., $17,443; J. F. Shea, $16,955; Jacobson-Bade Co., $16,422; Elliott Contracting Co., $17,902. A temporary injunction has been issued restraining the Council from entering into a contract for the work. Noted May 21 and Jan. 7.

Glendora, Calif.—Bids will be received until Jan. 18, by the Board of Trustees, for 28,000 ft. of w.-i. pipe, black-dipped; gate valves and fire hydrants. F .G. Dessery is City Engr.

San Diego, Calif.—The Water Department has been authorized by the Council to proceed with the construction of the Pine Creek diverting dam. The estimated cost is $705,000.

Brantford, Ont.—(Official)—We have been advised that at the recent election bonds for $100,000 were voted. The proceeds of this sale will be used to pay for the completion of the water system, most of the work of which has been done. T. H. Jones is City Engr. Noted Dec. 17.

Essex, Ont.—The Council contemplates making extensions and improvements to the water system, at an estimated cost of $6500. W. D. Beaman is Clk.

Ottawa, Ont.—The city will spend $425,000 to construct the Lea distribution system, bonds for which have been voted. R. S. Lea and W. S. Lea, Montreal, Que., have prepared the plans. Noted Nov. 19.

Port Dalhousie, Ont.—At a recent election the citizens voted in favor of issuing bonds for $50,000, the proceeds of which will be used for the construction of a water system.

Saanichton, B. C.—According to press reports bids will be received soon for the construction of a new water system, estimated to cost $375,000. Bonds for this purpose have been voted. Noted Oct. 1 and 15.

Vancouver, B. C.—According to press reports bids were received Dec. 28, by the City Council, for making extensions to the water system of West Vancouver, as follows: Ledingham & Cooper, $115,661; Pacific Bridge Co., $114,779; Cotton & Co., $112,354; W. Greenless, $124,354; McDougal & Co., $109,968; and Naylor Bros., $138,554. The two bidders for constructing a dam, trestle and trench were: F. Davis, $64,483 and Vancouver Wood Pipe Co., $57,249. Noted Dec. 24.

SEWERS

Boston, Mass.—Bids will be received until Jan. 21 by the Public Works Department for the construction of the Dorchester Brook sewer. L. K. Rourke is Comr.

Boston, Mass.—Bids will be received until Jan. 18 by the Public Works Department for cleaning 7700 catch basins in various parts of the city. L. K. Rourke is Comr.

West Hartford, Conn.—Bids were received Dec. 23 by the Board of Selectmen for constructing the Boulevard sewer system as follows: (a) Small tile; (b) large tile: Petrossi Bros., (a) $27,939; (b) $28,804; R. T. Ryan, Hartford, (a) $28,004; (b) $28,768; O'Neill Bros., (a) $30,005; (b) $30,290; C. H. Slocum, (a) $30,792; (b) $31,208; .Pierson Construction Co., Bristol, (a) $35,170; (b) $35,593.

New York, N. Y.—(Borough of Richmond)—Bids will be received by Charles J. McCormack, Pres. of the Borough until noon, Jan. 19, for constructing a temporary combined sewer in 12th St. and a reinforced-concrete receiving basin on the north side of Richmond Terrace.

Syracuse, N. Y.—Plans are being prepared by the Engineers of the Intercepting Sewer Board for the sewer treatment plant to be constructed on the shores of Onondaga Lake.

+Syracuse, N. Y.—Press reports state that the contract for constructing a system of storm water sewers in the First and Second Wards has been awarded to the C. T. HOOKWAY CO. at $60,000.

★Newark, N. J.—(Official)—Bids will be received until 2 p.m., Feb. 2, by the Passaic Valley Sewerage Commissioners, Essex Bldg., Newark, for the construction of the southerly portion of Section 18 of the Main Intercepting sewer in Paterson. John S. Gibson is Clk. For details see advertisement under "Contracts to Be Let," Paterson.

★+Paterson, N. J.—The contract for constructing Section 17, Central Portion of the Main Intercepting sewer has been awarded to the NEW YORK & NEW JERSEY CONSTRUCTION CO., 30 East 42d St., New York, at $179,531. Noted Dec. 3 and Jan. 7.

★Paterson, N. J.—(Official)—Bids were received Jan. 5 by the Passaic Valley Sewerage Commissioners for constructing Section 18, central portion, of the Main Intercepting Sewer as follows: Fusco Construction, Newark, $220,440; Harrison & Craig Co., Newark, $200,600; New York & New Jersey Construction Co., New York, $166,570; Mason, Hilton & Co., New York, N. Y., $158,450. Noted Dec. 17.

★Allentown, Penn.—The lowest bid submitted was that of Frank Cannon, Allentown, at $15,906. for the construction of the 14th Ward storm sewer. Noted Dec. 3.

Baltimore, Md.—(Official)—Bids were received on Sanitary Contract No. 143, Section 8, of the west low level interceptor as follows: Smith & Ruggles, Baltimore, $29,754; M. O'Herron & Son, Baltimore, $30,175; Ryan & Reilly Co., Baltimore, $30,314; James Ferry & Sons, Baltimore, $34,858; Carezza Bros. & Co., Baltimore, $39,252.

Sandusky, Ohio—(Official)—Bids will be recived by John J. Molter, Dir. of Pub. Ser., until noon, Feb. 1, for constructing a storm and sanitary sewer in Monroe St. Noted Dec. 31.

Janesville, Wis.—Press reports state that plans are being prepared by C. V. Kerch, City Engr., for constructing several miles of sewers.

Superior, Wis.—All bids received for the construction of a sewer between Catlin and Fisher Ave., from Broadway to 14th St., were rejected, as they exceeded the appropriated amount. Noted Dec. 31.

+Iowa Falls, Iowa—See item under "Water Supply—Irrigation."

+Hibbing, Minn.—A contract for constructing the storm water and sanitary sewers in the Alice addition has been awarded to BUTLER & COONS CONTRACTING CO., Hibbing. Noted Dec. 31.

St. Paul, Minn.—According to press reports the City Council has decided to construct a sewer on the east of Snelling Ave., from Fairmount Ave. to St. Clair St., and on Fairmount Ave., from Pascal to Snelling Ave., estimated to cost $6000.

Springfield, Mo.—Press reports state that plans are being prepared by S. Fisher, City Engr., for constructing a sewer in the Eighth Ward. Estimated cost, $80,000. Noted Nov. 12.

Benton, Ark.—According to press reports an election will be held about Jan. 15, to vote on the question of issuing $100,000 in bonds for constructing a sewer system and water works.

Afton, Okla.—(Official)—An election will be held Jan. 21, to vote on the question of issuing $37,000 in bonds for constructing a sanitary and storm sewer system. The Benham Engineering Co., Oklahoma City, is Consulting Engr. Noted Dec. 3.

Chelsea, Okla.—At a recent election the citizens voted in favor of issuing $30,000 in bonds for a sanitary sewer system.

Ontario, Calif.—Bids will be received by R. O. Brackenridge, City Clk., until Feb. 1, for the sale of $55,000 in bonds, the proceeds of which will be used for constructing sewers.

Ottawa, Ont.—(Official)—We have been advised that the City Council does not contemplate constructing pipe sewers in Bank St. Noted Dec. 31.

Toronto, Ont.—(Official)—Bids will be received by H. C. Hocken, Chn. of Bd. of Control, until noon, Jan. 19, for reconstructing a part of Section No. 2 of the High Level Interceptor.

Toronto, Ont.—Bids will be received by the Board of Control, until Jan. 19, for constructing sewers in a number of streets.

Vancouver, B. C.—According to press reports plans were submitted by S. B. Bennett, Municipal Engr., for connecting lateral sewers with the Canoe Creek and China Creek trunk sewers in South Vancouver and were passed by the Joint Sewerage Commission.

GARBAGE

Boston, Mass.—Bids will be received until Jan. 21 for the removal of offal, ashes and refuse in the various city districts. L. K. Rourke is Comr. Pub. Wks.

Weehawken, N. J.—(Official)—Bids will be received until 8 p.m., Jan. 18, by the Township Committee, for the removal of ashes and garbage. Thomas Carroll is Township Clk.

+Baton Rouge, La.—The contract for installing a garbage incinerator has been awarded to the NYE ODORLESS CREMATORY CO., Macon, Ga., at $4700. Noted Jan. 7.

New Orleans, La.—(Official)—At 10:30 a.m., Feb. 23, in the office of W. B. Thompson, Comr. Pub. Utilities, City Hall, there will be sold at public auction a franchise for installing and operating in the City of New Orleans, for a period of five years, illuminated sanitary trash cans; according to the specifications in ordinance No. 2031, Commission Council Series. George Ferrier, Jr., is Clk. of Commission Council.

★Hibbing, Minn.—Bids for the construction of an incinerator for disposal of the village garbage were received on Dec. 29 from; G. A. Oveson, International Falls, $5250 (for three units); McGuire Incinerator Co., $9680 (for two units). Noted Dec. 31.

Independence, Kan.—Press reports state that the city will build a garbage destructor plant to cost about $5000. C. H. Kerr is Mayor.

+Berlin, Ont.—(Official)—The contract for the construction of an incinerator has been awarded to the IDEAL INCINERATOR CO., Toronto. The estimated cost is $14,000. A. H. Millar is City Clk. Noted Dec. 10.

Ottawa, Ont.—(Official)—A communication from L. McL. Hunter, Roadway Engr., states that the by-law providing for the construction of an incinerator to serve the west end of the city has been passed. The estimated cost is $50,000. Noted Nov. 26.

Toronto, Ont.—Bids will be received until noon, Feb. 16, by H. C. Hocken, Mayor, Chn. Bd. of Control, for furnishing and installing furnaces and machinery for the refuse incinerating plant. The estimated cost is $60,000. Plans on file at the office of G. B. Wilson, St. Comr., City Hall. Noted Sept. 24, Oct. 22, Nov. 26.

STREETS AND ROADS

+Hartford, Conn.—The contract for the construction of about 4344 lin.ft. special 6-in. gravel road in East Lyme Township has been awarded by the State Highway Commission to A. B. CADWELL at approximately $7493. Noted Jan. 7.

★+Albany, N. Y.—(Official)—Bids were received by John N. Carlisle, State Highway Comr., 55 Lancaster St., Jan. 5, for the construction of public highways by State Aid as follows:

Road No. 5543, Cattaraugus County, 6.95 miles: Lake Shore Construction Co., Dunkirk, $131,784; Ribstine-Holter Co., Inc., Rochester, $133,473; Thomas F. Shaughnessy, Albany, $129,076; LYMAN H. BEVANS, Albany, $128,431 (contract awarded); J. B. Hurley, Inc., Fredonia, $133,382; James Rossney, Buffalo, $130,162.

Road No. 1170, Cattaraugus County, 0.44 mile: Frank M. Foote, Arcade, $5876; Vodder Construction Co., Delevan, $6361; Lake Shore Construction & Supply Co., Dunkirk, $6122; E. H Brown, Hempstead, $6106; JAMES ROSSNEY, Buffalo, $584 (awarded contract).

Road No. 5525, Cayuga County, 4.56 miles: Thomas Brady Rochester, $54,313; Flood & Van Wirt Co., Hudson Falls, $54,079; P. H. Murray, Rochester, $53,831; Semper Bros., Watertown, $54,313; JOHN H. GORDON, Albany, $53,248 (awarded contract); Paddleford & King, Sherburne, $54,069.

Road No. 5627, Delaware County, 3.90 miles: De Graf & Hogeboom, Inc., Kingston, $47,714; S. V. Van Wagonen, Inc., Rondout, $46,666; SCHUNNEMUNK CONSOLIDATED CO., Highland Mills, $45,291 (awarded contract); St. Lawrence Construction Co., Menands, $46,147; Catskill Construction Co., Catskill, $48,592; Frank E. Gore, New York, $48,133; John H. Gordon, Albany, $47,844.

Road No. 5541, Essex County, 5.98 miles: C. W. Tryon, Boyntonville, $60,912; J. H. Culkin, Oswego, $56,879; James Anderson, Monands, $58,163; W. L. Lawton, Glens Falls, $62,487; KEESEVILLE ROAD CO., Keeseville, $54,693 (awarded contract); William G. Fox, Saratoga Springs, $55,373.

Road No. 5540, Essex County, 10.15 miles: James Anderson, Monands, $96,225; KEESEVILLE ROAD CO., Keeseville, $92,249 (awarded contract); J. A. Culkin, Oswego, $96,145; Bruno Pizzimenti, Seneca Falls, $99,931; Bluff Point Stone Co., Plattsburgh, $94,339; Boynton & McNally, Keeseville, $97,303.

Road No. 1222, Franklin County, 0.22 mile: Beede Bros., Keene Valley, $3932; Rumpf & Stevens, Lake Placid, $3821; R. B. Kennedy, Utica, $3813; Flood & Van Wirt Co., Hudson Falls, $4147; William B. Peggs, Canton, $4132; John B. Dower, Ballston Spa., $3613. All bids were rejected.

Road No. 1054, Alden-Darien Center, Genesee County, 3.88 miles: Lyden Contracting Corporation, Albany, $38,919; Greenfield Construction Co., Hornell, $39,631; Atlanta Construction Co., Atlanta, $39,345; James Rossney, Buffalo, $39,052; E. J. Munn Contracting Co., Buffalo, $39,528; E. H. BROWN, Hempstead, $38,811 (awarded contract); and 13 others.

Road No. 5538, Genesee County, 2.84 miles: Wood & Tompkins, Hilton, $28,655; E. H. Brown, Hempstead, $28,093; Dale Engineering Co., Utica, $28,616; Greenfield Construction Co., Hornell, $28,933; CHILSON & GIBSON, Buffalo, $26,939 (awarded contract); James Rossney, Buffalo, $28,416; Michael L. Ryan, Cortland, $27,524; Thomas F. Murray, Le Roy, $27,991.

Road No. 766-767, Monroe County, 7.12 miles: Whitmore-Rauber-Vicinius, Rochester, $79,999; Harry B. Harrison, East Rochester, $84,041; NEWPORT CONSTRUCTION CO., Herkimer, $76,259 (awarded contract); Leary & Morrisson, Rochester, $85,503.

Road No. 1221, Putnam County, 2.55 miles: John L. Hayes, Yonkers, $38,156; James L. Kehoe, Newburgh, $38,941; De Graff & Hogeboom, Inc., Kingston, $38,554; AMOS D. BRIDGES' SONS, Hazardville, Conn., $37,097 (awarded contract); St. Lawrence Construction Co., Albany, $38,409; and others.

Road No. 5536, St. Lawrence County, 8.35 miles: A. J. Rockwood, Rochester, $112,845; Beede Bros., Keene Valley, $110,589; James Anderson, Menands, $107,204; Richard Hopkins, Troy, $114,444; H. P. BURGARD, Fulton, $104,843 (awarded contract); R. B. Kennedy, Utica, $109,245; T. H. Gill Co., Binghamton, $110,068; Semper Bros., Watertown, $115,873; P. H. Murray, Rochester, $112,310; Frank E. Gore, New York City, $108,146.

Road No. 5534, Saratoga County, 4.95 miles: John P. Dugan, Amsterdam, $54,346; Phelan & Sullivan, Utica, $32,328; De Graffe & Hogeboom, Kingston, $54,782; J. P. Scanlon Construction Co., Albany, $54,246; William G. Fox, Saratoga Springs, $54,835; JOHN B. DOWER, Ballston Spa, $53,430 (awarded contract); Michael H. Ripton, Rochester, $55,244; and ten others.

Road No. 5542, Saratoga County, 4.55 miles: Phelan & Sullivan, Utica, $40,925; Michael H. Ripton, Rochester, $42,348; Amos D. Bridges' Sons, Inc., Hazardville, Conn., $40,538; De Graffe & Hogeboom, Inc., Kingston, $41,465; Brady & Oltarch, Inc., New York, $42,105; Valley Construction Co., Sidney, $41,518; WILLIAM G. FOX, Saratoga, $39,656 (awarded contract); and 14 others.

Road No. 986, Sullivan County, 10.97 miles: Edward P. Abrogast, Stroudsburg, Penn., $120,821; James L. Kehoe, Newburgh, $15,723; C. W. Tryon, Boyntonville, $109,824; Frank E. Gore, New York , $116,063; William A. Martin, Poughkeepsie, $108,394; FULTON ENGINEERING CO., Inc., Albany, $103,314 (awarded contract); A. Vito Construction Co., Thompson, Conn., $12,117; John L. Guinan Contracting Co., Brooklyn, $122,999; I. M. Ludington & Sons, Rochester, $119,746.

Road No. 5508, Ulster County, 6.50 miles: S. B. Van Wagonen, Rondout, $94,997; Russo-Parker Construction Co., Hudson, $99,690; RUDDY SAUNDERS CONSTRUCTION CO., Troy, $89,821 (contract awarded); Municipal Asphalt Co., New York, $99,805; Frank E. Gore, $99,996; Blankfield & Donovan, Kingston, $94,003; Frank Salvricci and James J. Kennedy, Eddyville, $95,927; Levenson Wrecking Co., Hoboken, N. J., $95,416.

Road No. 1224, Washington County, 5.33 miles: Flood & Van Wirt Co., Hudson Falls, $49,435; William S. McLachlin, Whitehall, $45,184; Michael H. Ripton, Rochester, $46,345; Griswell & Mallory, Mechanicsville, $47,538; James Anderson, Menands, $45,380; Fulton Engineering Co., Inc., Albany, $49,649; Brady & Oltarsh Constructing Co., Inc., New York, $44,469; Albert F. Johnson, New York, $48,729; WILLIAM G. FOX, Saratoga Springs, $39,941 (awarded contract); Amos D. Bridges' Sons, Inc., Hazardville, Conn., $4,279. Noted Dec. 17.

Bolivar, N. Y.—At a recent election the citizens voted in favor of paving 1½ miles of street, estimated to cost $30,000.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received by L. H. Pounds, Pres. of the Borough until 11 a.m., Jan. 20, for improving Canarsie Lane, from Flatbush to Nostrand Ave., Clara St. from 36th to West St.,, East Eighth St. from Ocean Parkway to Johnson St., East 12th St. from Ave. U to Gravesend Neck Rd., Foster Ave. from Flatbush to Nostrand Ave., 39th St. from 14th Ave. to West St., 78th St. from 17th to 18th Ave., and 79th St. from 22d to 23d Ave.; also for 2000 tons of limestone to be delivered to the municipal asphalt plant, Seventh St. Basin, Gowanus Canal.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by Marcus M. Marks, Pres. of the Borough until 2 p.m., Jan. 21, for improving the market spaces under the Williamsburg Bridge from Bridge to Columbia St.

Port Dickinson, N. Y.—Bonds for $39,000 were sold, the proceeds of which will be used for paving Chenango St. Noted Dec. 31.

+Syracuse, N. Y.—The contract for resurfacing South State St., from Erie Canal to East Onondaga St., has been awarded to the WARNER QUINLAN CO., at $9884.

+Yonkers, N. Y.—The contract for paving Lawrence St. has been awarded to WARREN BROS., Boston, Mass., at $15,918.

Chesterfield, N. J.—Bids will be received by the Township Committee until Jan. 16, for improving two miles of macadam road. James Logan, Mt. Holly, N. J., is Engr.-in-Charge.

★+Somers Point, N. J.—The contract for constructing the Somers Point-Longport Blvd. has been awarded to the ATLANTIC CONSTRUCTION & SUPPLY CO., at $182,212. Noted Nov. 26 and Dec. 17.

Wilkes-Barre, Penn.—The City Council has voted to pave Jones, Dana, Lincoln, Beaumont and Hollenbeck St.

Baltimore, Md.—Bids will be received until Jan. 19, by the State Roads Commissioners, 601 Garrett Bldg., for the construction of one section of road through Grantsville, about .85 miles, to be constructed under Contract G-8, Garrett County,to be macadam or concrete. One section of road from Meadows to Camp Springs, about 3.03 mi., to be macadam or concrete, to be constructed under Contract P-13, in Prince George's County. One section of road from Upper Marlboro to Hills Bridge, about 2.45 mi., macadam or concrete, to be constructed under Contract P-14, in Prince George's County. One section of macadam or concrete road through the town of Church-Hill, .65 mi., to be constructed under Contract Q-12 Queen Anne's County. One section of 4-in. gravel resurfacing from Ridge to the Confederate Monument, about 3.58 mi., to be constructed under Contract SM-9, in St. Mary's County. O. E. Miller is Chn. of Rd. Comrs.

+Baltimore, Md.—(Official)—The contract for paving Latrobe St.,, from Oliver St. to Lafayette Ave., has been awarded to MARTIN J. BEACH CO., at $4519. Noted Dec. 10.

★Baltimore, Md.—(Official)—Bids will be received by the Board of Awards, until 11 a.m., Jan. 20, for grading, curbing and paving on concrete base a number of streets. For particulars, see advertisement under "Contracts to Be Let."

Norfolk, Va.—The paving and curbing of Salter St., from Princess Ave. to Starr St. will be done by the city paving force under the supervision of W. H. Taylor, Jr., Acting City Engr.

New Cumberland, W. Va.—(Official)—Bids were received by the County Court, Jan. 4, for improving roads in Butler District. The contract for improving Section 3 has been awarded to ROSSER & MALONEY, Bellaire, Ohio, at $45,800, and Section 4 to FRED ROBINSON, New Cumberland, W. Va., at $25,000. Noted Dec. 10.

Danbury, N. C.—Press reports state that an election will be held Jan. 19 in Quaker Township, Stokes County, for the purpose of voting on the question of issuing $50,000 in bonds for constructing roads.

Macon, Ga.—Press reports state that an election will be held Mar. 4 to vote on the question of issuing $100,000 in bonds for paving. J. J. Gaillard is City Engr. Noted Dec. 24.

Savannah, Ga.—Press reports state that the City Council appropriated $50,000 for paving streets during 1915.

Jacksonville, Fla.—Press reports state that the City Council contemplates paving Parker St., from Beaver to Wambolt St.

+Jackson, Miss.—The contract for resurfacing Capitol St. has been awarded to the BARBER ASPHALT CO., Philadelphia, at approximately $6000.

+Covington, La.—A contract for constructing a road has been awarded by the St. Tammany Parish Police Jury to ARTHUR DOTTEN, Houltonville, La., at $24,068.

Dayton, Tenn.—According to press reports the Rhea County Road Bond Commissioners will sell $250,000 in bonds, the proceeds of which will be used for constructing roads.

Jonesboro, Tenn.—According to press reports the citizens of Washington County contemplate holding an election for the purpose of voting on the question of issuing $300,000 in bonds for constructing roads.

+Louisville, Ky.—The contract for paving West Market St. from 35th St. to Parkway has been awarded to F. G. BRESLIN CO. at $76,000. Noted Nov. 26 and Dec. 17.

Paducah, Ky.—Press reports state the Commissioners of McCracken County will widen the Hinkleville Rd. and extend it about four miles to the Cairo Rd.

Bexley (Columbus post office), **Ohio**—An election will be held Jan. 28 to vote on the question of issuing $35,000 in bonds for improving streets.

Cadiz, Ohio—Bids will be received by the County Audtior until Jan. 30, for the sale of $30,000 in bonds, for the improvement of the Jewett Scio Free Turnpike Rd.

Canton, Ohio—Plans have been prepared for the construction of the following roads: Bituminous macadam: Navarre-Justus Rd., 2.49 miles, 15 ft. wide, $28,220; Alliance-Belton Rd., 1 mile, 16 ft. wide; Magnolia-Sparta Rd., 3.12 miles, 15 ft. wide, $38,853; Waco-Mapleton Rd., 1.90 miles, 16 ft. wide, $21,998. Brick paving: Massillon-Millersburg Rd., 3.60 miles, 15 ft. wide, $76,495; Louisville-Freeburg Rd., 2.5 miles, 15 ft. wide, $53,400. Bids will be received in the early spring by the Commissioners of Stark County. W. F. Binson is County Surveyor.

Cincinnati, Ohio—(Official)—Bids will be received by Daniel Lawrence, Clk. of the Bd. of Dir. of the University, Burnet Woods Park, Cincinnati, until noon, Jan. 20, for constructing an approach from Clifton Ave. to the athletic field of the University of Cincinnati.

Cleveland, Ohio—(Official)—Bids will be received by the Board of Commissioners of Cuyahoga County until 10 a.m., Jan. 30, for the improvement of Berea-Triskett Rd. E. G. Krause is Clk. of the Comrs.

+Columbus, Ohio—The State Highway Commission awarded contracts as follows:

Miami County—Dayton-Troy Rd., macadam. J. M. HENNESSY & BRO., Piqua, $26,987.

Hardin County—Roundhead-McCuffey Rd., brick. HENRY S. ENCK, Lima, $23,787.

Morgan County-McConnellsville-Caldwell Rd., macadam H. C. FOSTER & SON, Richmond, $32,743.

Cuyahoga County—Chagrin Falls—Greenville Rd., brick. THE ENTERPRISE PAVING & CONSTRUCTION CO., Cleveland, $83,449.

Lancaster, Ohio—According to press reports, J. Carpenter, City Engr., is preparing plans fo the paving of West Fair Ave. from Columbus St. to the old canal bed.

Mt. Gilead, Ohio—Bids will be received by C. O. Higgins, County Audr., until Jan. 29, for the construction of the Hunter Rd. in Washington township.

Indiana—(Official)—Bids will be received as follows for road construction:

Valparaiso, until 2 p.m., Feb. 1, by the Commissioners of Porter County for constructing two gravel roads. C. A. Blachly is Audr.

Fowler, until 1 p.m., Feb. 1, by the Commissioners of Benton County for constructing a gravel road in Center Township. Warren Mankey is Audr.

Tipton, until 10 a.m., Feb. 1, by the Commissioners of Tipton County, for constructing a gravel road on line between Prairie and Liberty Townships. Oscar Vanners is Audr.

Greenfield, until 10 a.m., Feb. 1, by the Commissioners of Hancock County for constructing a road on line between Green and Center Townships. Lawrence Wood is Audr.

Williamsport, until 9 a.m., Feb. 1, by the Commissioners of Warren County for constructing a gravel road in Liberty Township. D. H. Moffit is Audr.

Rensselaer, until 2 p.m., Feb. 2, by the Commissioners of Jasper County for constructing stone roads in Carpenter and Walker Townships. J. P. Hammond is Audr.

Brazil, until 10:30 a.m., Feb. 2, by the Commissioners of Clay County, for constructing two limestone roads in Lewis Township. W. O. Graeser is Audr.

+Fowler, Ind.—Contracts have been awarded by the Benton Commissioners for constructing county roads as follows: Welch Rd., $5666, to WILLIAM MAHONEY, La Fayette; Burns Rd., $6400, to GLYNN & VANNATA, Otterbein; Phares Rd., $8850, to EVANS & VANNATTA, Fowler; Keefe Rd., $6281, to WILLIAM MAHONEY, La Fayette; Lowman Rd., $11,250, to EVANS & VANNATTA, Fowler.

+Greencastle, Ind.—A contract for constructing a macadam road in Franklin Township has been awarded by Commissioners of Putnam County, to MAHONEY & SONS, Greencastle, at $8400. Noted Dec. 17.

La Fayette, Ind.—All bids received Jan. 6 by the Commissioners of Tippecanoe County for constructing a gravel road in Wayne Township have been rejected.

+Valparaiso, Ind.—A contract for constructing a gravel road in Union Township has been awarded by the Commissioners of Porter County to GREEN & COPLIN, at $15,450. Noted Dec. 17.

+Vevay, Ind.—A contract for constructing a road in Cotton Township has been awarded by the Commissioners of Switzerland County to T. F. D. NEILL, Jeffersonville, at $7490.

+Crystal Falls, Mich.—A contract for constructing 10¾ miles of road in Iron County has been awarded to WIDELL CO,. Mankato, Minn., at $29,671. Other bids were: A. D. McRae, Iron River, Mich., $30,793; Smith, Byers & Sparks, Houghton, Mich., $36,175; Gust Tradeau & Son, Norway, Mich., $42,429.

Flint, Mich.—Bids will be received until Jan. 27 for 110,000 sq.yd. of paving. E. C. Shoecraft is City Engr.

Moline, Ill.—According to press reports the City Council has authorized the paving of 18th Ave., from 16th to 27th St., with brick. The estimated cost of the work is $26,599. Lyle Payton is City Engr.

Minneapolis, Minn.—The Park Board contemplates an expenditure of $48,000 for the improvement of Dean Blvd.

Kansas City, Kan.—Press reports state that bonds for $125,000 have been sold, the proceeds of which will be used for improving streets.

Potosi, Mo.—Press reports state that Potosi Special Road District Commissioners have retained W. R. Haegler to make surveys and plans for road construction.

Austin, Tex.—(Official)—Bids will be received by the County Judges of Bexar, Comal, Guadalupe, Hayes and Travis Counties until Jan. 22, for constructing the Austin-San Antonio-Post Rd. This road will be 71 miles long and will cost $240,000, of which $80,000 will be given by the Federal Government and the remaining $160,000 by the counties to be traversed by this road.

+Bonham, Tex.—Press reports state that the contract for constructing 14 miles of road has been awarded to the OWENS CONSTRUCTION CO., Vicksburg, Miss., at $66,488. Noted Dec. 24.

Bryan, Tex.—At the election held Dec. 30 the question of issuing $600,000 in bonds for constructing roads in Brazos County was defeated. Noted Dec. 3 and 10.

Corpus Christi, Tex.—Press reports state that an election will be held Feb. 5 to vote on the question of issuing $100,000 in bonds for street paving. Roy Miller is Mayor. Noted Jan. 7.

+Corsicana, Tex.—The Commissioners' Court has awarded the contract for the construction of 19 miles of roads in District No. 3, Navarro County, to FRED SMITH, Dallas, at $75,000.

Ennis, Tex.—According to press reports the City Commission plans to pave the streets in the business district, at approximately $85,000.

+Galveston, Tex.—A contract for supplying approximately 10,000 cu.yd. of shell for improving county roads has been awarded to W. D. HADEN, by the Galveston County Commissioners.

+Houston, Tex.—The contract for paving Holman St., from Main to Louisiana St., has been awarded to HORTON & HORTON, at $5600.

+Mt. Pleasant, Tex.—A contract for paving ten blocks with Oklahoma rock asphalt has been awarded to the BERT HAHN CONSTRUCTION CO., Dallas, at approximately $30,000.

Paris, Tex.—Press reports state that at the election held Dec. 29, the people voted in favor of issuing $100,000 in bonds for street improvements. Noted Dec. 10.

✚Sherman, Tex.—The contract for paving about four miles of city streets has been awarded to LEVY & LEVY, Muskogee, Okla. The paving will have a 5-in. gravel concrete base with a 5-in. Texaco asphalt topping.

Chehalis, Wash.—Bids will be received by the County Commissioners, until Feb. 1, for constructing one mile of concrete highway and one mile of road, estimated to cost $15,000 and $17,000, respectively.

✚Hillyard, Wash.—The contract for paving Market St. has been awarded to the SPOKANE BITU MASS PAVING CO. at $4200.

✚Los Angeles, Calif.—The Board of Public Works awarded the following contracts for improving Wilhart St., to the FAIRCHILD-GILMORE-WILTON CO., at $27,971, Vermont Ave. to BRYANT & AUSTIN, at $127,764, and Hoover St. to G. H. OSWALD, at $48,526.

Oakland, Calif.—The City Council has approved plans for the improvement of 35th Ave. and Eighth St.

✚Huntingdon, Que.—A contract for macadamizing 11¾ miles of roads with sandstone finish has been awarded to O'CONNOR BROS. and RANTLY & SUMMERS.

✚Point Grey, B. C.—According to press reports the contract for paving the hill section of University Ave. has been awarded to the COTTON CO. at approximately $11,000. Noted Jan. 7.

INDUSTRIAL WORKS

✚Salem, Mass.—The contract for the construction of a four-story, reinforced concrete addition to the plant of the Naumkeag Steam Cotton Co., has been awarded to FRED T. LEY & CO., Springfield. Estimated cost $400,000. Noted Dec. 17.

Salem, Mass.—Heven & Crosby, Archs., 40 Central St., Boston, are revising plans for the construction of a four-story and basement, 35x213 ft. plant, for William H. Gove, 254 Lafayette St., Salem.

Camden, N. Y.—Bids will be received about Feb. 1 for the construction of a one-story, 50x300 ft. building, for the Hydraulic Turbine Co. Noted Jan. 7.

Buffalo, N. Y.—The United States Rubber Reclaiming Co. plans the construction of a $50,000 plant. C. B. Brewster, 724 Babcock Ave., is interested.

New York, N. Y.—(Borough of Queens)—Plans have been prepared by Timmis & Chapman, Archs., 315 Fifth Ave., New York, N. Y., for the construction of a two-story, 220x290-ft. reinforced-concrete plant, on Anabel Ave., Long Island City, for G. Schirmer, Inc.

★Thiells, N. Y.—Bids will be received until 11 a.m., Jan. 30, by Frank A. Vanderlip, Pres. of Bd. of Mgrs., Letchworth Village, for the construction of a laundry. For further information see advertisement under "Contracts to Be Let."

Tuckahoe, N. Y.—Samuel M. Green & Co. have prepared plans for the construction of two-story plant on Midland Ave., for the Commercial Research Co. The estimated cost is $25,000.

Harrison, N. J.—The Hyatt Roller Bearing Co. will construct a 2½-story 50x50-ft. addition to its plant on Railroad Ave. Estimated cost, $10,000.

Leonia, N. J.—The Universal Film Co. has had plans prepared for the construction of a $150,000 factory and studio at Leonia Heights near Fort Lee.

✚New Brunswick, N. J.—The contract for the construction of an addition to the plant of the Neverslip Mfg. Co., on Neilson St., has been awarded to PETER KINNEY, 39 Wyckoff St., New Brunswick.

New Brunswick, N. J.—E. Allen Wilson, Arch., 1208 Chestnut St., Philadelphia, Penn., is preparing plans for the construction of a four-story, 90x100-ft. factory for Bayuk Bros., Philadelphia, Penn.

✚West Orange, N. J.—The general contract for rebuilding the plant of Thomas A. Edison, Inc., recently destroyed by fire, at Lakeside Ave. and Valley Rd., has been awarded to the MOYER ENGINEERING & CONSTRUCTION CO., 375 Fulton St., Brooklyn, N. Y. Noted Jan. 7.

Carnegie, Penn.—The Superior Steel Co. plans to rebuild its plant at Carnegie, which was recently damaged by fire.

✚Marcus Hook, Penn.—The contract for the construction of two buildings for the Benzol Products Co., Philadelphia, has been awarded to F. W. VAN LOON, Philadelphia, at $75,000. A. B. Mitchell is Engr. Noted Dec. 24.

Morrellville (Johnstown post office), **Penn.**—The Johnstown Rubber Co. recently increased its capital from $25,000 to $100,000, for the construction of a plant.

York, Penn.—The York Corrugated Co. plans the construction of a two-story brick factory. Estimated cost, $22,000.

Baltimore, Md.—The Kennedy Foundry Co. plans the construction of a one-story foundry at Charles and Wells St. Estimated cost, $100,000. Joseph P. Kennedy is Pres.

Wheeling, W. Va.—W. L. Fordyce is organizing a company for the purpose of constructing a woolen mill, to cost about $25,000.

Shelbyville, Tenn.—The Sylvan Cotton Mills recently increased its capital from $72,000 to $90,000 for the purpose of constructing an addition to its plant. John F. Frierson is Pres.

Canton, Ohio—The Canton Sheet Steel Co. plans the construction of a two-story, brick and steel factory. Estimated cost, $25,000.

✚Cleveland, Ohio—Contracts for the construction of a two-story and basement brick factory on East 25th St., for the Cleveland Suit & Skirt Co., 1401 West Ninth St., have been awarded as follows: A. W. PAHNER, 685 East 118th St., masonry; JACOB SCHADE & SON, 1601 East 85th St., carpentry; VAN DORN IRON WORKS CO., East 79th St., steel; NORTON BROS., 2667 East 69th St., roofing. Estimated cost, $10,000. **Noted Aug. 12 and Aug. 27.**

Chicago, Ill.—The Independent Packing Co., recently purchased a site on Halstead St. and Emerald Ave., for the construction of an addition to its plant.

Chicago, Ill.—The Armour Grain Co., 137 South La Salle St., will construct a grain elevator on the Calumet River front. The first section will have a capacity of 3,000,000 bu. George E. Marcy is Pres.

Cudahy, Wis.—The Federal Rubber Mfg. Co. is having plans prepared for a three-story 44x125-ft. wing addition to its plant. Estimated cost, $500,000.

Wausau, Wis.—The Farmers' Co-operative Packing Co. plans to construct a two- and three-story brick and concrete packing plant. The estimated cost is $250,000.

West Allis, Wis.—The Davis Mfg. Co., Milwaukee, is having plans prepared for the instruction of a one-story, 350x290-ft. plant, at 50th Ave. and Burham St.

Ames, Iowa—Plans are being prepared by R. G. McDowell & Co., Good Blk., Des Moines, for the construction of a two-story and basement 54x120-ft. garage for L. R. Cold, of the Imperial Auto Co., 1016-18 Locust St., Des Moines. Estimated cost, $15,000.

Cedar Rapids, Iowa—Charles P. Hubbard plans the construction of an artificial ice house and cold-storage warehouse. Estimated cost, $150,000.

Independence, Iowa—H. T. Leibbe, Arch., State Capitol, Des Moines, has prepared plans for a two-story and basement, 70x120-ft laundry, to be built by the State Board of Control. Estimated cost, $20,000. F. S. Treat, State Capitol Bldg., is Secy.

Great Falls, Mont.—The Great Falls Sewer Pipe & Fireproofing Co., recently incorporated, plans to construct a four-story dryer, a four-story building for grinding machinery and a one-story power plant. Estimated cost, $260,000.

Beaumont, Tex.—The Magnolia Petroleum Co., a subsidiary of the Standard Oil Co., plans the construction of an oil refinery on a site recently purchased. The plan includes the construction of a warehouse on the Neches River. Noted Nov. 19.

Seattle, Wash.—Plans have been prepared by I. B. Johnson, 3838 Evanston Ave., for the construction of a two-story and basement garage for Frey & Kreilsheimer, at Broadway and Denny Way. Estimated cost, $25,000.

Seattle, Wash.—Manning & Morris contemplate the construction of a four-story reinforced-concrete garage and salesroom, at 11th Ave. and East Pine St. Estimated cost, $60,000.

Seattle, Wash.—Bids are being received by V. W. Voorhees, Arch., Eitel Bldg., for the construction of a two-story addition to the Overland Garage, 11th and Pike St. Estimated cost, $15,000.

Deschutes, Ore.—Plans are being prepared for the construction of a chemical plant to cost about $6,000,000. Jason C. Moore and associates are interested. J. G. Kelley is Consult. Engr.

St. Johns, Ore.—Plans are being prepared by L. R. Bailey, Arch., for the construction of a plant for the Western Cooperage Co., on Riverview Ave. Estimated cost, $75,000. Noted July 23.

Los Angeles, Calif.—Wise & Downie will construct a two-story brick factory on San Pedro St., between Sixth and Seventh St. Estimated cost, $15,000.

San Francisco, Calif.—The Langdorffer Baking Co. is having plans prepared by D. C. Coleman, Arch., Merchants' National Bank Bldg., for the construction of a two-story baking plant on McAllister St. Estimated cost, $30,000.

Yuba City, Calif.—A. B. Miller, Marysville, is preparing to construct a packing plant, to cost $25,000.

FEDERAL GOVERNMENT WORK

★✚Dredging—New Haven, Conn.—The contract for dredging in the New Haven Harbor has been awarded to the MORRIS & CUMINGS DREDGING CO., 17 State St., New York, N. Y. Noted Nov. 15 and Dec. 24.

✚Post Office—Glens Falls, N. Y.—The contract for the construction of a post office at Glens Falls has been awarded to GEORGE B. WILLS & CO., 101 Park Ave., New York, N. Y., at $61,552. Noted Nov. 5 and Dec. 24.

✚Pier—New York, N. Y.—(Borough of Brooklyn)—The contract for the construction of a timber and reinforced concrete pier at the New York Navy Yard, has been awarded to SNARE & TRIEST, 233 Broadway, New York, N. Y., at $158,730. Noted Dec. 3 and 24.

★Dredging—New York, N. Y.—Bids will be received until noon, Feb. 11, by Col. W. M. Black, Corps Engrs., 710 Army Bldg., New York, for dredging in the Harlem River, N. Y.

✚Warehouse—Sandy Hook (Fort Hancock post office), N. J.—The contract for the construction of a warehouse at Sandy Hook has been awarded to the ALTORIA REALTY & CONSTRUCTION CO., 3 East 44th St., New York, N. Y., at $12,454.

Dredging—Philadelphia, Penn.—The following are the bids received for dredging in the Delaware River, below Philadelphia: Maryland Dredging & Contracting Co., Baltimore, Md., (a) for dredging in Section D, calling for about 1,320,000 cu.yd., scow measurement, $124,080; (b) for dredging in Section E, calling for about 1,205,000 cu.yd. scow measurement, $113,270; (c) for dredging in Sections D and E, calling for about 2,525,000 cu.yd., scow measurement, $237,350; P. Sanford Ross, Inc., Jersey City, N. J., (c) $300,475; John H. Gerrish, Boston, Mass., (a) $167,508; (b) $149,299; Sanford & Brooks Co., (c) $277,750; American Dredging Co., Philadelphia, Penn., $110,220. Atlantic Gulf & Pacific Co., New York, N. Y., $239,117; Timothy J. Daly, New York, N. Y. (Borough of Brooklyn), (a) $210,800; (b) $192,800; (c) $391,375; Morris & Cumings Dredging Co., New York, N. Y., (a) $135,696; (b) $123,874; (c) $259,570. Noted Dec. 10.

Gasoline Cutter—Philadelphia, Penn.—Bids will be received by Col. George A. Zinn, Witherspoon Bldg., Philadelphia, until noon, Feb. 8, for constructing an 80-ft. wooden hull and house gasoline survey cutter. Noted Nov. 5 and Dec. 24.

★Repairs To Bulkhead—Cape Henlopen (Lewes post office), Del.—Bids will be received by the Lighthouse Inspector, Philadelphia, Penn., until 2 p.m., Feb. 1, for making repairs and extensions to timber groynes and bulkhead at Cape Henlopen.

Artesian Water Supply—Indian Head, Md.—According to press reports, the following bids were received by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for an additional artesian water supply at U. S. Naval proving ground, Indian Head: (a) for artesian water supply of not less than 400,000 gals. per 24 hours in addition to existing supply; (b) work complete on bidder's plans and specifications; (c) for a further artesian water supply of not less than 400,000 gals. per 24 hours in addition to existing supply and increase provided under (a): Ridpath & Potter Co., Philadelphia, Penn., (a) $18,000, (b) $4.50 per ft. (c) $25,000; Edward Christman, Massillon, Ohio, (a) $15,970, (b) $9890 and $9590, (c) $3600.

Power Plant—Washington, D. C.—Plans are nearing completion for the construction of a central heating, lighting and power plant. Oscar Wenderoth, Treasury Dept., Washington, is Superv. Arch.

Road—Alexandria, Va.—Bids will be received by the Chairman, Board of Awards, office of Public Roads, U. S. Dept. of Agriculture, until 2 p.m., Jan. 22, for the construction of an experimental road on Mount Vernon Ave., in Alexandria County, from Military Rd., near Arlington Cemetery, about 4.5 miles to the corporate city limits of Alexandria. The approximate quantities to include: 29,000 cu.yd. of excavation; 7050 cu.yd. of gravel base, and 42,000 sq.yd. of bituminous surfacing.

Floating Crane—Portsmouth, Va.—Bids will be received by H. R. Stanford, Chief of the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until Feb. 13, for furnishing a 150-ton floating revolving crane for the Norfolk Navy Yard. The opening of these bids was originally scheduled for Jan. 16. Noted Sept. 24.

✚Dump Scows—Wheeling, W. Va.—The contract for furnishing two wooden dump scows, designated "U. S. E. D. Kanawha No. 33" and "U. S. E. D. Kanawha No. 34," has been awarded to the KANAWHA DOCK CO., Point Pleasant, W. Va., at $5250. Noted Nov. 26.

★Breakwater—Cape Lookout, N. C.—The following are the bids received for the construction of a breakwater, including shore connection at Cape Lookout: John Cashman & Sons Co., Boston, Mass., (a) Contract No. 1, $1,431,144; (b) Contract No. 2, $3,321,000; Edward Gillen Dock, Dredge, & Construction Co., Racine, Wis., (a) $1,369,002; (b) $2,959,703; Roderick G. Ross, Jacksonville, Fla., (a) $1,360,671; (b) $2,988,900; Coast Lakes Contracting Co., New York, N. Y., (a) $1,897,350; (b) $3,012,885, Standard Lime & Stone Co., Baltimore, Md., (a) $1,864,824; (b) $3,997,500; Uvalde Asphalt Paving Co., (a) $1,909,800, (b) $4,317,450; Hardaway Contracting Co., Columbus, Ga., (a) $1,370,525; (b) $2,793,600; Cranford Paving Co., and Columbia Granite Co., Washington, D. C., (a) $2,835,183; (b) $6,125,400; Coastwise Dredging Co., Norfolk, Va., (b) $3,024,600; H. P. Converse & Co., Boston, Mass., (a) $1,236,818; (b) $2,756,030; D. L. Taylor Co., Medina, N. Y., (a) $1,073,358; (b) $2.435,400; Bowers Southern Dredging Co., Galveston, Tex., (a) $1,372,086; (b) $2,966,226. Noted Nov. 26.

★✚Piling—Wilmington, N. C.—The contract for furnishing and delivering 2716 short leaf pine piles has been awarded to M. A. REGAN, Elizabethtown, N. C., at $4889. Other bidders were: Empire Tie Co., Wilmington, N. C., $5426; G. Elias & Bro. Inc., Buffalo, N. Y., $8066; J. D. Robbins, Wilmington, N. C., $6518; J. S. Hoskins Lumber Co., Baltimore, Md., $10,185; J. McDowell, Elizabethtown, N. C., $9370. Noted Nov. 5.

✚Post Office—Thomasville, Ga.—The contract for the construction of a post office at Thomasville has been awarded to the WESTCHESTER ENGINEERING CO., White Plains, N. Y., at $55,506. Noted Nov. 12 and Dec. 24.

✚Earthwork—New Orleans, La.—The contract for the construction of earthwork in the lower Tensas District has been awarded as follows; for about 101,000 cu.yd. in the Bayou Vidal Levee, to H. T. VAN FOSSEN, at $13,382; for 101,000 cu.yd. in the Dahlia Levee to ROBERT NICHOLSON & CO., at $17,635. Other bidders were: J. G. Sessions, $13,514 (for Bayou Vidal Levee only): Quicksall & Berger, $31,996; N. C. Williamson, $55,550; Donovan & Daley, $42,218; S. R. Hughes Construction Co., $36,562; W. E. Geren, $46,460; Lambert Bros., $18,139 (for Bayou Vidal Levee only); Francis T. Constant, $39,188; Walker & Hill, $40,136; R. T. Clark & Co., $33,047; W. C. Mullen, $38,016; Gibson & Son & Hamilton, $31,754; Linnan Bros., $34,340; H. B. Blanks Levee Co., $37,329. Noted Dec. 10.

Post Office—Covington, Tenn.—Bids will be received by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p.m., Feb. 20, for the construction of a post office at Covington.

Steel Hull—Kentucky—Bids will be received by Lieut. Col. W. L. Sibert, Custom House, Cincinnati, Ohio, until 10 a.m., Feb. 9, for constructing a steel hull for Derrick Boat No. 4, Kentucky River, Ky.

Post Office—Bozeman, Mont.—Bids were received as follows, for the construction of a post office at Bozeman, (a) limestone; (b) sandstone: Olson & Johnson, Missoula, Mont., (a) $61,474; (b) $62,750. Leigland-Kleppe & Co., Great Falls, Mont., (a) $65,000; (b) $66,175. John Almeter, Portland, Ore., (a) $65,900; (b) $67,000. Hiram Lloyd Building & Construction Co., St. Louis, Mo., (a) $69,469; (b) $70,469. Reynolds, Sypher & Shackleton, Butte, Mont., (a) $65,990; (b) $67,190. William O'Neil & Son Co., Faribault, Minn., (a) $69,804; (b) $73,713. William H. Egan, New York, N. Y. (a) $66,333; (b) $67,733. Levegne, Felsheim & Baverly, Bozeman, Mont., (b) $62,976. H. E. Doering, Portland, Ore., (a) $66,291; (b) $67,740. Noted Dec. 10.

★✚Jetty Work—Sabine Pass, Tex.—The contract for jetty work at Sabine Pass, has been awarded to JAMES CLARK & CO., Galveston, Tex., at $174,088. Noted Nov. 19 and Jan. 7.

Post Office—La Junta, Colo.—Bids were received as follows; for the construction of a post office at La Junta, (a) limestone; (b) sandstone: George W. Stiles Construction Co., Chicago, Ill.; (a) $75,835. Hiram Lloyd Building & Construction Co., St. Louis, Mo., (a) $76,539; (b) $76,937. Deiter & Wenzel Construction Co., Wichita, Kan., (a) $86,225. Welch Bros. & Hannaman, Grass Valley, Calif., (a) $88,332; (b) $88,332. William O'Neil & Son Co., Faribault, Minn., (a) $82,197. John Lafe & Co., Omaha, Neb., (a) $84,062. Noted Nov. 26.

★Canal, Etc.—Olathe and Delta, Colo.—The following are the bids received for the construction of the Lower Selig Extension Canal and laterals; Reynolds Ely Construction Co., Springville, Utah, $24,490; M. A. Wogan, Denver, Colo., $25,077; Bates Milles & Co., Springville, Utah, $25,957; Orman Construction Co., Montrose, Calif., $25,957; Mendenhall, Straw & Bird, Springville, Utah, $28,303. Noted Dec. 17.

Pump Unit—Minidoka, Idaho—Bids will be received until 2 p.m., Jan. 20, by E. O. Ensign, Ch. Electrical Engr., U. S. Reclamation Service, Los Angeles, Calif., for furnishing centrifugal pumps and framework for the Boersch Lake pumping plant, Minidoka.

Ward Building and Addition to Dormitory—Fort Mason (San Francisco post office), Calif.—Bids will be received by the Constructing Quartermaster, until 11 a.m., Jan. 18, for constructing a ward building and an addition to the nurses dormitory.

✚Rostrum—Presidio (San Francisco, post office), Calif.—The contract for the construction of a rostrum for the National Cemetery at Presidio has been awarded to R. EHRHART, San Francisco, at $5832.

Structural Steel—Panama—Bids will be received by Maj. F. C. Boggs, Gen. Pur. Officer, Panama Canal Comn., Washington, D. C., until 10:30 a.m., Jan. 23, for furnishing and erecting or erecting only, structural steel and miscellaneous material for Pier No. 7, Christobal Terminal Docks.

Miscellaneous Supplies—Panama—Bids will be received by Maj. F. C. Boggs, Gen. Pur. Officer, Panama Canal Comn., Washington, D. C., until 10:30 a.m., Jan. 21, for furnishing by steamer free of all charges on either Colon, Atlantic port, or Port of Ancon, Balboa, Canal Zone, Pacific port, c.-i. lampposts and porcelain receptacles and lamp sockets for same, electric cable, steel cable, steel pipe and pontoons for same, c.-i. washers, stovepipe, garbage cans, buckets, anchors, brass bolts and washers, door bolts, power hack saw, anchor lights, cheesecloth, sash cord, chalk line, twine, rubber bands, bristol board, pad board, manganese dioxide, and potassium chromate.

✚Valves and Accessories—Panama—Bids will be received by Maj. F. C. Boggs, Gen. Pur. Officer, Panama Canal Comn., Washington, D. C., until 11:30 a.m., Feb. 24, for furnishing valves and accessories for Dry Dock No. 1, Balboa Terminals.

Steel Dump Scows—Panama—Bids will be received by Maj. F. C. Boggs, Gen. Pur. Officer, Panama Canal Comn., Washington, D. C., until Feb. 10, for furnishing three 1000-yd. steel dump scows.

★Material for Pumping Plant—Panama—Bids will be received by Maj. F. C. Boggs, Gen. Pur. Officer, Panama Canal Comn., Washington, D. C., until 10:30 a.m., Feb. 24, for furnishing material for the pumping plant of Dry Dock No. 1, Balboa Terminals.

MISCELLANEOUS

Electric Wiring and Bookstacks—Albany, N. Y.—The following bids were received by the Trustees of Public Buildings, Dec. 29, for furnishing and installing electric wiring, bookstacks and reflectors at the state education building: Hatzel & Buehler, New York, N. Y., $10,840; Finch & Hahn, Albany, $11,000; Edward Joy Co., Syracuse, $11,775; Lord Electric Co., New York, N. Y., $11,888; Albin Gustafson Co., New York, N. Y., $11,958; Isador Fajans, New York, N. Y., $11,975; Alliance Electric Co., Inc., New York, N. Y., $12,684.

Plaza—Albany, N. Y.—The Common Council has passed an ordinance authorizing a bond issue of $175,000 for the construction of a plaza at the foot of State St.

★Steel Furniture—Albany, N. Y.—The following bids were received Dec. 29 by the Trustees of Public Buildings for furnishing standard and steel furniture for the state tax commission: B. Gloeckner & Co., Albany, $11,359; Clayton E. Marsters, Albany, $11,700; A. Pearson's Sons, Brooklyn, N. Y., $11,943; Cobb-Macey-Dohme, Inc., New York, N. Y., $12,598; Helmes Bros., Albany, $15,700; Van Dorn Iron Works Co., New York, N. Y., $20,210. Noted Dec. 10.

★Finishing Hardware—Albany, N. Y.—(Official)—Bids will be received until 4 p.m., **Jan.** 18, by Col. Franklin W. Ward, Secy., Bd. of Armory Comrs., 174 State St., for furnishing the finishing hardware for armory and stable for Troop B, First Cavalry, N. G. N. Y. For details see advertisement under "Contracts to Be Let."

★Water Softening Plant—Buffalo, N. Y.—(Official) — Bids will be received until 2:30 p.m., Jan. 21, by the State Hospital Commission, Capitol, Albany, N. Y., for the construction of a water softening plant at the Buffalo State Hospital, Buffalo, N. Y. E. S. Elwood is Secy. of the Comn. For further information see advertisement under "Contracts to Be Let."

Filling—New York, N. Y.—(Borough of Manhattan)—Bids were received Dec. 31 by the Department of Parks for filling the swamp land at the southwest corner of Van Cortlandt Park, from Van Cortlandt Contracting & Improvement Co., Inc., at $14,951; Simon Russek, Inc., at $21,800.

Riprap—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for placing 50,000 cu.yd. of riprap, on which the Frederick Starr Contracting Co. was the lowest bidder, has been temporarily abandoned for lack of the necessary appropriation from the Board of Estimate. Noted Dec. 31 and Jan. 7.

✚Fire Hydrants—New York, N. Y.—(Boroughs of Manhattan and Bronx)—The Department of Water Supply, Gas and Electricity has awarded the contract for furnishing double-nozzle fire hydrants for use in Manhattan and Bronx to the A. P. SMITH MFG. CO., East Orange, N. J., at $10,040. Noted Jan. 7.

Dredging—New York, N. Y.—(Boroughs of Manhattan, Brooklyn, Queens, the Bronx and Richmond)—(Official)—Bids will be received until noon, Jan. 18, by R. A. C. Smith, Comr.

Docks, Battery Pl., for dredging about 250,000 cu.yd. in the North River and about 80,000 cu.yd. in the East and Harlem Rivers. The amount of security required is $23,000.

Roofing—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by the Department of Public Charities, Room 1034, Municipal Bldg., until 10:30 a.m., Jan. 20, for furnishing the labor and materials required for roofing work on the children's hospital and schools, Randalls Island. The amount of security required is $6000.

Fire Station—Hoboken, N. J.—(Official)—Bids will be received until 7 p.m., Jan. 27, by the Mayor and Council, for the construction of the proposed fire station at Second and Jefferson St. The bids received recently for this work were rejected. Noted Nov. 26, Dec. 17, Jan. 7.

Portland and Asphaltic Cement—Newark, N. J.—Bids will be received until 3:15 p.m., Jan. 14, by the Board of Works for 300 tons of asphaltic cement, 200 tons asphaltic sand, 250 tons rock dust and 200 tons of portland cement.

✚Motor Fire Apparatus—Perth Amboy, N. J.—The Board of Alderman has awarded the contract for furnishing motor driven fire apparatus to the FRANK VAN SYCKLE GARAGE CO., Perth Amboy.

★Skylights, Roofing and Cargo Doors—Philadelphia, Penn. (Official)—The following bids were received on Jan. 4 by the Department of Docks and Ferries for (Schedule A) installing skylights at Piers 38 and 40, South Wharves: David Lupton's Son Co., Philadelphia, $5057; J. S. Thorn Co., Philadelphia, $5300; E. S. Bortel, Philadelphia, $8382. Bids for (Schedule B) slag roofing for Piers 38 and 40 were as follows: Harry S. Ehret, $6442; General Roofing Co., $6842; E. S. Bortel, $6933; Benjamin Foster Co., $7157; The Philip Carey Co., $9319; Warren Ehret Co., $9618. For (Schedule C) erecting cargo doors on Piers 38 and 40, the bids were: Snare & Triest, $39,250; Kinnear Mfg. Co., $54,000, alternate, $43,000; J. E. Ogden Co., $47,988, five alternates from $32,981 to $47,128; W. W. Lindsay, $41,710 (the foregoing bids are on item 11 only, for vertically operated frame doors). These bids were received for (Schedule D) erecting cargo chutes and hatchway railings at Piers 38 and 40: W. W. Lindsay & Co., $4300; Geo. B. Clopp, $4375; John Baizley Iron Works, $5250. George W. Norris is Dir. Dept. Wharves, Docks and Ferries. John Meigs is Asst. Dir. Noted Dec. 24.

★Electric Hoists—Philadelphia, Penn.—(Official)—Bids will be received by George W. Norris, Dir., Dept. Wharves, Docks and Ferries, 555 Bourse Bldg., until noon, Feb. 15, for furnishing electric hoists for installation at Southwark Piers, Catherine and Christian St., Delaware River. For details see advertisement under "Contracts to Be Let."

★Street Signs—Wilkes-Barre, Penn.—(Official)—Bids will be received until noon, Jan. 29, by Fred H. Gates, City Clk., for furnishing f.o.b. Wilkes-Barre, 200 four-way street signs and 400 single signs suitable for fastening to buildings. For details see advertisement under "Contracts to Be Let."

Dredging—Charleston, S. C.—The Chamber of Commerce is considering the dredging of Cooper River to a uniform depth of 30 ft. The estimated cost is $175,000.

Drainage—Columbia, S. C.—F. G. Eason and D. F. Culbertson, investigators, U. S. Dept. of Agricultrue, have filed plans and reports with the State Department of Agriculture for the drainage of Cowcastle District, Orangeburg County. It comprises 42,353 acres. The estimated cost is $186,371.

Illuminated Trash Boxes—New Orleans, La.—(Official)—See item under "Garbage."

River Improvement—Tiffin, Ohio—(Official)—Clyde C. Porter, City Solicitor, writes that bids for proposed river improvement have not been advertised yet. The contemplated work includes widening, straightening and deepening the river; also the construction of a reinforced-concrete retaining wall. William Heller is Dir. Pub. Wks. J. L. Oberlander is City Engr. Noted Dec. 31.

★Pumping Station—Quincy, Ill.—(Official)—Bids will be received by the Edmund T. Perkins Engineering Co., First National Bank Bldg., Chicago, Ill., until 2 p.m., Feb. 19, for the construction of an electric pumping station for the South Quincy Drainage and Levee District, Adams County. Walter P. Martindale is Secy. of District. For details see advertisement under "Contracts to Be Let."

Sewer Construction—Rockford, Ill.—(Official)—Bids will be received until 11 a.m. Jan. 27 by W. W. Bennett, Pres. of the Bd. of Local Improvements, for the construction of the Southeast End Sewer District. See advertisement under "Contracts to Be Let."

Cribbing and Sheet Piling—Milwaukee, Wis.—The Board of Park Commissioners, Frank F. Schumacher, Secy., will receive bids until Jan. 15, for furnishing the material and constructing rock-filled timber cribs for protection of the Lake Shore Drive from Milwaukee River tunnel inlet to Wisconsin St. Bids should be submitted as follows: Price per foot on 1700 lin.ft. of crib construction; price per lin.ft. on 2800 ft.; price per foot on 100 lin.ft. of sheet piling. The estimated cost is $150,000.

✚Motor Fire Apparatus—Sioux Falls, S. D.—(Official)—The city has awarded the contract for furnishing the fire department with a 75-ft. aërial truck, to the AMERICAN LA FRANCE FIRE ENGINE CO., Elmira, N. Y., at $10,450. The other bids were: Seagrave Co., $10,100; James Boyd & Bros., $10,100. S. B. Howe is City Engr. Walter C. Leyse is City Audr. Noted Dec. 31.

Gymnasium—Cooperstown, N. D.—(Official)—Bids will be received until 1:30 p.m., Feb. 1, at the office of Berg Bros., Cooperstown, for the erection of the A. H. Berg memorial gymnasium. Plans and specifications may be secured from the offices of Berg Bros., Cooperstown, or Hancock Bros., Archs., Fargo, N. D.

Wharf and Warehouse—Houston, Tex.—(Official)—E. E. Sands, City Engr., states that the site for the proposed wharf and warehouse has not been selected and until this is done the contract will not be awarded. Bids for this work were received on Oct. 28. Horton & Horton, at $218,840, submitted the lowest bid. Noted Sept. 17, Oct. 8, Nov. 5.

Fire-Alarm System—Temple, Tex.—The city officials have under consideration the installation of an electric fire-alarm system.

Ditches—Bellingham, Wash.—C. M. Adams, County Engr., has completed surveys for three ditches. They will be constructed in the spring at an estimated cost of $45,000.

Ferry Terminal and Fish Market—Seattle, Wash.—The Seattle Port Commission is having plans prepared for a headhouse, ferry terminal and a public fish market to be erected at West Seattle. The estimated cost is $20,000.

Waterway—Tacoma, Wash.—(Official)—A communication from L. A. Nicholson, Engr., Commercial Waterway District No. 1, Pierce County, states that the recently elected commissioners have appointed Chester Thorne Chn., John Buffelin Secy., and John D. Fletcher Attorney. The location of the waterway has not been located definitely nor the right of way obtained; it is probable that several months will elapse before bids will be received.

Jetty—Eureka, Calif.—Two jetties will be constructed, north and south, at an estimated cost of $435,000. A wharf is being constructed preliminary to the construction of the north jetty. Work on the south jetty will be commenced about Feb. 1. Morton L. Tower is Engr.

Harbor Improvements—Los Angeles, Calif.—According to local press reports the Harbor Commission has ordered the City Engineer to prepare plans for the construction of a 2000-ft. jetty for inclosing an area of 40 acres to be used as a fisherman's harbor. A wharf 1500 ft. long will be constructed also. The project calls for 1,300,000 cu.yd. of filling and 250,000 cu.yd. of dredging. The estimated cost is $300,000.

Interlocking Tower—Oakland, Calif.—The San Francisco-Oakland Terminal Ry. plans to construct an interlocking tower at Stanford Ave. and Lowell St. The estimated cost is $22,744.

✚Wharf—Richmond, Calif.—(Official)—The contract for the construction of the municipal wharf has been awarded to the HEALY-TIBBITTS CONSTRUCTION CO., 263 Market St., San Francisco. The estimated cost is $248,657. J. A. Jordan is Supt.

Fire Station—San Francisco, Calif.—Press reports state that the City Bureau of Architecture has been allowed $3000 for the preparation of plans and specifications for a fire station to be erected at Post and Polk St. The estimated cost is $50,000.

Coal Pocket—Westmount, Que.—The Ogdensburg Coal & Towing Co., 134 McCord St., plans to construct a reinforced-concrete coal pocket estimated to cost about $10,000.

Elimination of Grade Crossing—Brantford, Ont.—T. H. Jones, City Engr., has prepared plans for the construction of a subway at St. Paul St. under the tracks of the Grand Trunk Ry. System, requiring about 1900 cu.yd. of reinforced concrete.

Fuel Reservoir—Vancouver, B. C.—Plans have been completed and bids soon will be received for the construction of an additional fuel reservoir, having a capacity of 50,000 bbl.

Civic Center—Vancouver, B. C.—Plans for the proposed civic center will be prepared by Thomas Kerner and M. Matocks, Vancouver. The estimated cost is $2,500,000.

BUILDINGS

Other items relative to Building Construction will be f;und under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous

Manchester, N. H.—Plans are being prepared by Hutchins & French, Archs., 6 Beacon St., Boston, Mass., for the construction of a five-story 100-125-ft. building on Elm St.

Boston, Mass.—H. H. Atwood, Arch., 61 Alban St., Dorchester District, is preparing plans for the construction of a 11-story and basement administration building. Estimated cost, $225,000.

Boston, Mass.—Bids will soon be received for the construction of a six-story, 92x154-ft. fire proof building on School St. C. Howard Walker, 71 Gilby St., is Arch.

✚Springfield, Mass.—The contract for alterations in the building of Smith & Murray Co., Main and Court St., has been awarded to E. J. PINNEY, at $125,000. B. H. Seabury, Springfield is Arch.

New Britain, Conn.—Bids will be received by Walter P. Crabtree, Arch., 272 Main St., until Jan. 20, for the construction of a two-story high school. Estimated cost $150,000.

New Haven, Conn.—Bids will be received about Mar. 1, for the construction of an administration building for the New Haven Hospital and a building for the Yale Medical School. Estimated cost, $300,000. L. W. Robinson, 42 Church St. is Arch. Noted Dec. 17.

Albany, N. Y.—St. Vincent De Paul's R. C. Church contemplates the construction of a parochial school on Western Ave. Estimated cost, $50,000. Rev. William R. Charles, 900 Madison Ave., is pastor.

Albany, N. Y.—The Board of Supervisors is considering the remodeling of the Albany Penitentiary into a modern jail. Estimated cost $185,000.

Beacon, N. Y.—The Board of Education is contemplating the construction of a two-story high school on Fishkill Ave. Estimated cost, $60,000. Wilson Potter, 1 Union Sq., New York; William Whitney Rasmussen, 1133 Broadway, New York; and John T. Simpson, 31 Clinton St., Newark, N. J., are Archs.

Buffalo, N. Y.—The lowest bids received Dec. 29, by the Board of Supervisors for reconstructing the Erie County Jail were as follows: Masonry, C. H. Everett, $57,500; steel and iron work, Buffalo, Structural Steel Co., $36,000; removing old cells, etc., C. F. Ernst, $51,389; all material and labor, Van Dorn Iron Wks., $107,316.

Cooperstown, N. Y.—The Delaware & Hudson R.R. contemplates the construction of a $60,000 station. F. D. Anthony, Albany, N. Y., is Constr. Engr.

Holtsville, N. Y.—Nathan Myers, Arch., 7 Nelson Pl., Newark, N. J., submitted tentative plans for the proposed tuberculosis hospital to the Board of Commissioners of Suffolk County, Patchogue, L. I. The plans were approved and permanent plans will be prepared at once. Estimated cost, $50,000.

New York, N. Y.—(Borough of Bronx)—Plans are being prepared by George Blum and Edward Blum, 505 Fifth Ave., for the construction of a six-story, 125x125-ft. apartment house at Haven Ave. and 180th St., for the Strathcona Construction Co., 3785 Broadway. Estimated cost, $120,000.

New York, N. Y.—(Borough of Bronx)—Frank J. Schefcik, 176th St. and Park Ave., is preparing plans for the construction of a five-story apartment house at 174th St. and Vyse Ave., for J. W. Cornish Construction Co., 805 East Tremont Ave. Estimated cost, $50,000.

New York, N. Y.—(Borough of Bronx)—Plans are being prepared by the Tremont Architectural Co., Webster and Tremont Ave., for the construction of a five-story, 50x87-ft. apartment house on 176th St. and Marmion Ave., for the Benenson Realty Co., 401 East 152d St. Estimated cost, $50,000.

New York, N. Y.—Borough of Brooklyn)—Bids will be received by the Grover Realty Co., 113 South Second St., for the construction of a six-story, 48x100-ft. apartment house on South Second and Berry St. Shampan & Shampan, 772 Broadway, are Archs.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by Gronenberg & Linchtag, 303 Fifth Ave., New York, for the construction of two four-story apartment houses for the Bensonhurst Improvement Co., Cropsey and 21st Ave. Estimated cost, $100,000.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by Shampan & Shampan, 772 Broadway, for the construction of a five-story apartment house on 68th St. and Fourth Ave., for the Boyd Realty Co. Estimated cost, $80,000.

New York, N. Y.—(Borough of Manhattan)—Samuel R. T. Very, 70 East 45th St., has completed plans for alterations to the seven-story apartment house at 22 East 62d St., for Mrs. Edward de Forest Simmons, 128 East 60th St. Estimated cost, $40,000.

New York, N. Y.—(Borough of Manhattan)—Neville & Bagge, 105 West 140th St., are preparing plans for the construction of a five-story, 50x87-ft. apartment house on Sherman Ave. and Dykman St. Estimated cost, $45,000. James Livingston, 261 West 36th St., is interested.

New York, N. Y.—(Borough of Manhattan)—The Trustees of the Cathedral of St. John the Divine have signified their intention to have Cram & Ferguson, Archs., Boston, Mass., prepare plans for the construction of the Cathedral Nave. Estimated cost $1,000,000. Work will not be completed for several years.

North Bergen, N. J.—(Official)—Bids will be received until 8 p.m., Jan. 19, by the Board of Education for the construction of No. 5 School. George C. Chrestman is Clk.

Hackettstown, N. J.—Bids will be received until Jan. 20, by Board of Education for the construction of a two-story, 35x144-ft. two-wing addition to a school. Estimated cost $75,000. William W. Rasmusser, 1133 Broadway, New York, N. Y., is Arch.

Paterson, N. J.—Fred Wentworth, 140 Market St., is preparing plans for the construction of a two-story, 140x170-ft., school. Estimated cost $223,000. Lewis T. Eden, 1 Madison Ave., New York, N. Y., is Engr.

Woodstown, N. J.—Bids will be received Jan. 18, by the Board of Education for the construction of a two-story and basement 110x205 ft. school. Albert W. Dilks, Philadelphia, Penn., is Arch.

Carbondale, Penn.—Bids will be received about Apr. 1, for the construction of a two-story high school. Estimated cost $200,000. E. H. Davis, Connell Bldg., Scranton, is Arch. Noted Dec. 31.

Lebanon, Penn.—Bids will soon be received for the construction of a two-story armory for the State of Pennsylvania. Estimated cost $50,000. McCormick & French, Wilkes-Barre, are Archs.

Monaca, Penn.—Plans are being prepared by Carlisle & Sharrer, Archs., Jenkins Arcade Bldg., Pittsburgh, for the construction of a group of buildings for Beaver County. Estimated cost, $80,000.

✚Philadelphia, Penn.—The contract for the construction of a four-story, 95x188-ft., apartment house on 12th St. and City Line has been awarded to ISAAC T. SHOEMAKER, 1309 Walnut St. Estimated cost, $200,000. Noted Dec. 24.

Sharon, Penn.—Plans are being prepared by F. E. Clepper & Co., Youngstown, Ohio, for the construction of a two-story building for the Sharon Commercial Arcade Co. Estimated cost, $100,000.

Wilkes-Barre, Penn.—Plans have been repared by Fulton & Butler, Arch., West Main St., Uniontown, Penn., for the construction of a two-story, 75x130-ft. building for the St Johns Luthran Church. Estimated cost $50,000.

(Continued on next page.)

BARGE CANAL WORK, ALBANY, N. Y.

✚Bids were received Dec. 22, by Duncan W. Peck, State Supt., Pub. Wks., for contract No. 13, constructing a guard lock, highway bridge and cut-off dam at Schuylerville from (A) Holleran Bros., Elmira, N. Y.; (B) Callahan & Prescott, (D) George Holler, Albany, N. Y.; (E) Champlain Engineering Inc., Albany, N. Y.; (C) Jobson-Gifford Co., New York, N. Y.; & Construction Corporation, Saratoga, N. Y.; (F) Walsh Construction Co., Davenport, Iowa; (G) Holler & Shepard, Rochester, N. Y.; (H) Barrally & Ingersoll, Rochester, N. Y.; (I) Parker & Beebe, Waterford, N. Y.; (J) Flood & Van Wirt Co., Hudson Falls, N. Y.; (K) Leary & Morrison Co., Rochester, N. Y.; (L) Eastover Construction Co., Inc., Utica, N. Y.; (M) LOW B. CLEVELAND, Watertown, N. Y. (awarded contract); (N) Gruner & Hallenbeck, Harriman, N. Y.; (O) W. T. Shields, Albany, N. Y.; (P) Scott Bros., Rome, N. Y.; (Q) Chesley, Earl & Heimbach, Inc., Buffalo, N. Y. The item bids were as follows:

CONTRACT NO. 13

	A	B	C	D	E	F	G	H	I
Clearing (lump sum)	$100.00	$100.00	$120.00	$100.00	$25.00	$100.00	$100.00	$100.00	$100.00
12,400 cu.yd. excavation	0.80	0.75	0.90	0.63	0.70	0.66	0.75	0.65	0.65
11 M. ft. b.m. sheeting and bracing	50.00	50.00	60.00	50.00	35.00	50.00	50.00	50.00	60.00
600 cu.yd. embankment	0.12	0.10	0.01	0.12	0.05	0.12	0.12	0.12	0.12
50 cu.yd. lining	1.50	1.50	1.80	1.50	0.85	1.50	1.50	1.50	1.50
17.5 M ft. b.m. sawed lumber	55.00	55.00	66.00	55.00	50.00	55.00	50.00	55.00	60.00
1 M ft. b.m. white oak lumber in miter sills	200.00	100.00	240.00	200.00	150.00	190.00	200.00	200.00	200.00
1000 lin.ft. foundation piles	0.35	0.35	0.42	0.35	0.25	0.35	0.38	0.35	0.35
14 M ft. b.m. wooden sheet piling	50.00	50.00	60.00	50.00	40.00	60.00	52.00	50.00	60.00
2 cu.yd. first-class reinforced concrete	15.00	15.00	18.00	15.00	10.00	15.00	14.00	15.00	15.00
4700 cu.yd. second-class concrete	8.00	7.50	7.57	7.65	7.50	8.25	8.00	7.50	7.50
180 cu.yd. third-class rip-rap	2.00	2.00	2.40	2.00	1.35	2.00	2.00	2.00	2.00
56,400 lb. structural steel	0.045	0.04	0.054	0.045	0.045	0.042	0.045	0.04	0.04
90 lb. metal reinforcement	0.04	0.04	0.048	0.04	0.04	0.04	0.04	0.04	0.04
6900 lb. iron castings—plain	0.04	0.03½	0.048	0.04	0.04	0.035	0.04	0.04	0.04
5900 lb. iron castings—machined	0.05	0.05	0.06	0.05	0.05	0.05	0.05	0.05	0.05
250 lin.ft. wooden fence	0.25	0.25	0.30	0.25	0.25	0.25	0.25	0.25	0.25
Maintaining navigation (lump sum)	300.00	300.00	600.00	100.00	50.00	500.00	300.00	500.00	250.00
Cofferdams, pumping, bailing and draining (lump sum)	2500.00	2000.00	3600.00	500.00	1500.00	3000.00	$2000.00	$3000.00	$2500.00
Extended totals	$56,265	$52,366	$57,992	$50,312	$50,732	$56,204	$55,088	$52,473	$51,934

	J	K	L	M	N	O	P	Q
Clearing (lump sum)	$100.00	$100.00	$100.00	$50.00	$50.00	$100.00	$100.00	$100.00
12,400 cu.yd. excavation	0.70	0.70	0.70	0.60	0.55	0.57	0.75	0.95
11 M. ft. b.m. sheeting and bracing	50.00	50.00	40.00	45.00	45.00	50.00	50.00	45.00
600 cu.yd. embankment	0.15	0.12	0.10	0.10	0.14	0.12	0.12	0.12
50 cu.yd. lining	1.50	1.50	1.00	1.30	1.50	1.50	1.50	1.20
17.5 M ft. b.m. sawed lumber	66.00	55.00	66.00	50.00	50.00	55.00	55.00	45.00
1 M ft. b.m. white oak lumber in miter sills	150.00	195.00	200.00	200.00	125.00	200.00	200.00	200.00
1000 lin.ft. foundation piles	0.35	0.35	0.42	0.35	0.32	0.33	0.30	0.35
14 M ft. b.m. wooden sheet piling	50.00	50.00	60.00	50.00	50.00	50.00	50.00	40.00
2 cu.yd. first-class reinforced concrete	15.00	14.00	15.00	18.00	15.00	15.00	15.00	12.00
4700 cu.yd. second-class concrete	7.80	8.50	8.00	6.00	7.50	7.50	7.00	9.15
180 cu.yd. third-class rip-rap	2.00	2.00	2.40	1.90	1.50	2.00	2.00	1.50
56,400 lb. structural steel	0.04	0.04	0.04	0.043	0.045	0.04	0.04½	0.03
90 lb. metal reinforcement	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.025
6900 lb. iron castings—plain	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03
5900 lb. iron castings—machined	0.05	0.05	0.06	0.05	0.05	0.05	0.05	0.03
250 lin.ft. wooden fence	0.25	0.24	0.30	0.24	0.25	0.25	0.25	0.20
Maintaining navigation (lump sum)	500.00	450.00	100.00	500.00	100.00	100.00	250.00	300.00
Cofferdams, pumping, bailing and draining (lump sum)	$2300.00	$3000.00	$2500.00	$1000.00	$500.00	$500.00	$3000.00	$1000.00
Extended totals	$53,963	$577,33	$54,846	$42,743	$48,239	$48,561	$51,204	$60,628

BUILDINGS

(Continued from page 27.)

Wilmington, Del.—Bids will be received until Mar. 25, by John K. Kennedy, Arch., Ford Bldg., for the construction of a 50x100-ft. four-story building for the Knights of Columbus. Estimated cost $40,000.

Washington, D. C.—Plans are being prepared by Hunter & Bell, 1421 H St. N. W., for the construction of a seven-story apartment house on Connecticut and Wyoming Ave. Estimated cost $400,000.

Washington, D. C.—Flournoy & Flournoy, Wilkins Bldg., are preparing plans for the construction of a school and dormitories at the Stonewall Jackson Institute. Estimated cost, $100,000.

+Pocahontas, Va.—(Official)—Thomas Bros., Inc., Marion, Va., has awarded a contract to CARLIN, CLARK & WALKER, BRAMWELL, W. Va., for reconstructing the store building recently destroyed by fire.

Richmond Va.—East & Hobbs, Norfolk, plan to construct a five-story apartment house at Monument Ave., and Boulevard. Estimated cost, $175,000.

Richmond, Va.—Carneal & Johnston are preparing plans for the construction of a three-story building for the Richmond Lodge No. 45, B. P. O. E. Estimated cost $50,000.

Asheville, N. C.—The Asheville Farm School recently destroyed by fire will be rebuilt at a cost of $40,000.

+Spartanburg, S. C.—The contract for the construction of a building for the First National Bank, Magnolia St. and Morgan Sq. has been awarded to WILLARD BOGGS & CO., at $60,000. Noted Dec. 10.

+Louisville, Ky.—The contract for the construction of a building for the Bourbon Stockyards Co., has been awarded to the BLANE-SINK CO., Chicago, Ill., at $130,000. D. X. Murphy is Arch.

Canton, Ohio—Bids will be received about Mar. 15 by M. L. Pearce, Phillips Bible Institute, for the construction of a three-story and basement administration building. Estimated cost, $120,000. M. T. Mills, McCune Bldg., Columbus, is Arch.

+Cleveland, Ohio—The contract for the construction of a five-story addition to the Charity Hospital at Central and East 22d St., has been awarded to C. A. CARSON. 6408 Euclid Ave. Estimated cost, $200,000. Noted Oct. 15 and Nov. 5.

Fremont, Ohio—(Official)—The proposition to issue bonds for $400,000 for the construction of a court house has been defeated. No further action will be taken for at least a year. V. L. Hasselbach is Clk. of County Comn. Noted Dec. 24.

Norwalk, Ohio—The Masonic Lodge plans the construction of a three-story brick building at Norwalk. Estimated cost, $40,000. L. C. Herrick is interested.

Warrensville, Ohio—Plans are being prepared by J. Milton Dyer, Arch., 825 Cuyahoga Bldg., Cleveland, for the construction of a reinforced-concrete hospital. Estimated cost, $100,000. Bids will be received in spring.

Indianapolis, Ind.—Bids will be received about Feb. 10 by the Library Committee, Indianapolis, for the construction of $500,000 library. Paul P. Cret and Zantzinger, Borie & Medary, 15th and Walnut St., are Associate Archs. Noted Feb. 12, Apr. 23 and July 9.

Saginaw, Mich.—The Saginaw Hippodrome Amusement Co., recently incorporated with a capital of $150,000, for the construction of a theater, with a seating capacity of 1600. Peter Wiederhold is Pres.

Chicago, Ill.—Bids are being received on revised plans for the construction of a three-story 80x234-ft. building at 47th and Ellis Ave. for Scherman T. Cooper, 8 South Dearborn St. Estimated cost, $80,000. Albert Lang, 7 West Madison St., is Arch.

+Menomonie, Wis.—The general contract for the construction of the five-story 125x228-ft. Domestic Science Building, at the Stout Institute has been awarded to MADSEN BROS., Plymouth Bldg., Minneapolis, Minn. Estimated cost, $200,000.

Milwaukee, Wis.—The Board of Directors of the St. John's Home for Old Ladies, 640 Cass St., plan the construction of a $60,000 building on Prospect Ave. and Bradford St. Mrs. M. L. Rinsdale is Secy.

Milwaukee, Wis.—Bids are being received by Martin Tullgren & Co., Archs., 133 Second St., for the construction of a three-story, 90x200-ft. apartment house at Grand Ave. and 21st St. Estimated cost, $100,000. Noted Oct. 15.

Milwaukee, Wis.—Bids will be received about Feb. 1 by Leenhouts & Guthrie, Archs., 421 Jefferson St., for the construction of a four-story, 34x140-ft. apartment house on 12th St., between Grand Ave. and Wells St., for Frank C. Courtenay and Charles Gilman. Estimated cost, $60,000. Noted Jan. 7.

Racine, Wis.—Revised plans are being prepared by Guilbert & Funston, Archs., Robinson Blk., for the construction of a three-story and basement school. Estimated cost, $80,000. Noted Oct. 29.

Rhinelander, Wis.—Bids will be received until Mar. 1 for the construction of a three-story and basement hotel for George B. Herman, Antigo, Wis. Estimated cost, $75,000.

Stevens Point, Wis.—The State Normal School will construct a 150x150x264-ft. dormitory on Main. Fremont St. and East Normal Ave. The estimated cost is $100,000. George B. Nelson is Regent.

Superior, Wis.—The Wisconsin Telephone Co., 185 Fifth St., Milwaukee, recently purchased a site 50x140 ft., for the construction of an exchange building. Estimated cost, $50,000.

Superior, Wis.—G. G. Newton & Co. have purchased a site at 11th and Tower St. for the construction of a $250,000 hotel. J. C. Crowley, Pres. of Rotary Club, is interested.

Brooklyn, Iowa—Plans have been prepared by Reimer & Herdin, Archs., Marshalltown, for construction of a three-story, 74x120-ft. hotel for F. Dewey. Estimated cost, $50,000.

Iowa City, Iowa—Plans are being prepared by Proudfoot, Bird & Rawson, Archs., Hubbell Bldg., Des Moines, for the construction of the Hall of Dentistry, at the Iowa University. Estimated cost, $100,000. Noted Dec. 10.

Sioux City, Iowa—The Elks Lodge plans the construction of a club house, estimated to cost $150,000.

Sioux City, Iowa—Plans are being prepared by W. L. Steel Arch., for the construction of a court house to cost abou $500,000. Noted Dec. 25, 1913.

Sioux City, Iowa—The Directors of the St. Vincent Hospital plan to construct a $100,000 building.

Sioux City, Iowa—George C. Call will construct a $60,000 addition to the Jackson Hotel, at Sioux City.

Duluth, Minn.—Bids will be received about Jan. 20 by Kelly & Williams, Archs., 402 First National Bank Bldg., for the construction of a four-story, 145x200-ft. fireproof armory on London Rd. and 13th Ave. East. Noted Dec. 31.

Kenyon, Minn.—Bonds will soon be voted for the construction of a high and grade school, estimated to cost $50,000. C. J. E. Holmen is Clk.

Ortonville, Minn.—Plans are being prepared by Alban & Lockhart, Archs., Endicott Bldg., St. Paul, for the construction of a fireproof high and grade school. The estimated cost is $50,000. Robert Hunter is Clk.

+St. Paul, Minn.—The construction of the five-story, 75x112-ft. fireproof Emporium department store on Seventh and Robert St., will begin about Apr. 1. Estimated cost, $200,000. The steel contract was awarded to the ST. PAUL FOUNDRY CO., and the contract for the terra cotta work to the AMERICAN TERRA COTTA CO. Angus McLeod is Pres. of the Emporium Co.

Kearney, Neb.—The State Normal Board is having plans prepared for the construction of an auditorium and a gymnasium. The estimated cost is $85,000.

Castlewood, S. D.—The county contemplates the issuing of $60,000 in bonds for the construction of a county court house and jail. Guy Osborn is County Audr.

+Helena, Mont.—The contract for the construction of the Masonic Temple has been awarded to GAGNON & CO., Billings. Estimated cost, $82,000. C. S. Haire is Arch.

Columbus, Mo.—The Board of Curators will petition the State Legislature for a biennial budget of $1,500,000. The amount will be used for the improvement of school buildings and extensions to the University of Missouri. Some of the expenditures for the university are as follows: A building and gymnasium for women, to be constructed at $85,000; the Horticultural Building, to be enlarged, $40,000; the Mechanics-Arts Hall Building, recently destroyed by fire, will be rebuilt, $50,000; Missouri School of Mines and Metallurgy, Rolla, Mo., improvements, $225,000. A. Ross Hill is Pres. of University of Missouri.

Little Rock, Ark.—The city plans the construction of a hospital to cost about $150,000. Charles E. Taylor is Mayor and F. M. Oliver is Clk.

Tucson, Ariz.—Bonds have been voted by the city for the construction of a $50,000 city hall. L. O. Cowan is City Clk.

Olympia, Wash.—Plans are being prepared by V. W. Voorhees, Arch., Eitel Bldg., Seattle, for the construction of a seven-story hotel at Sixth and Franklin St., for the Olympia Hotel Co. Estimated cost, $100,000.

Seattle, Wash.—Bids are being received by the Sound Construction & Engineering Co., Lowman Bldg., for the mill and ornamental iron work on the $350,000 Ballard High School. Noted Feb. 12 and Sept. 17.

Spokane, Wash.—Bids for the construction of the county tuberculosis sanatorium at Edgecliffe were received as follows: J. E. Cunningham, $45,187; J. M. Yeaman, $54,000; Guthrie-McDougal Co., $46,935; John T. Huteter, $64,000; Hartness & Norris, $51,848; Carl W. Anderson, $50,990; N. Norman, $57,937; F. E. Paterson, $53,150; Alloway & George, $57,000; George Groschoft, $51,680; J. B. Sweat & Co., $52,433; Charles Jasper, $60,500. The lowest bidder for heating was the Blair-Meagher Co., at $10,075. Noted Dec. 31.

Walla Walla, Wash.—A. W. Eiler, Mgr. of the Bijou Theater, plans the construction of a building to cost $60,000.

Walla Walla, Wash.—Plans have been prepared by George H. Purvis, Seattle, for the construction of a building for Clarence Crews, Mgr. of the Dime Theater. Estimated cost, $50,000.

Montreal, Que.—Bids will be received about Jan. 30 by E. Payette, Arch., 163 St. Francois Xavier St., for the construction of a public library on Sherbrooke and Montcalm St. Estimated cost, $200,000. Noted Oct. 29.

Guelph, Ont.—The citizens have voted against the proposition to construct a $125,000 addition to the Collegiate Institute. Noted Dec. 17.

Vancouver, B. C.—Plans are being prepared by Thomas Kerner and M. Matocks for the construction of the proposed civic center. The estimated cost is $2,500,000. Noted Sept. 17.

Vancouver, B. C.—Plans are being prepared by A. A. Cox, Carter Cotton Bldg., for the construction of an addition to the Vancouver General Hospital at 12th and Willow St. The estimated cost $85,000.

CONTRACT PRICE

INTERCEPTING SEWER, NEWARK, N. J.

Section 18—Central Portion

Bids were received Jan. 5 by the Passaic Valley Sewerage Commissioners for constructing Section 18, central portion, of the Main Intercepting Sewer, from (A) Fusco Construction Co., Newark; (B) Harrison & Craig Co., Newark; (C) New York & New Jersey Construction Co., Newark; (D) Mason Hilton & Co., New York, N. Y. The item bids were as follows:

	A	B	C	D
5000 lin.ft. earth excavation and refilling, in trench for 65-in. concrete sewer......	$37.00	$27.80	$26.00	$23.20
9000 cu.yd. rock excavation.	0.01	3.00	0.01	1.00
3800 cu.yd. concrete masonry	8.50	8.50	9.00	8.00
150 cu.yd. brick masonry and appurtenant work in manholes	20.00	15.00	15.00	20.00
1000 lb. steel for concrete reinforcement	0.05	0.05	0.03	0.05
Extended totals	$220,440	$200,600	$166,570	$158,450

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

New York Central Operating Officials—Under the reorganization plan of the New York Central two grand divisions will be established—the Eastern, under the supervision of William J. Fripp as general manager, with headquarters at Albany, and the Western, under D. C. Moon, general manager of the Western division, with headquarters at Cleveland. Under Mr. Moon there will be two general superintendents: Albert S. Ingalls, who will have charge of the line between Buffalo and Toledo, with headquarters at Cleveland, and Frank H. Wilson, who will be in charge of the line between Toledo and Chicago, with headquarters in the last named city. Under Mr. Fripp there will be three general superintendents: T. W. Evans, who will have charge of the line between Buffalo and Syracuse and from Montreal to Clearfield, Penn.; E. J. Wright, in charge of the line between Syracuse and the electric zone in New York, including the line into the Adirondacks and the Harlem division, and Miles Bronson, who will have immediate charge of the electrical division.

Electricity on The Farm—In an address presented at a Commonwealth Conference at Eugene, Ore., on "Electricity in Rural Districts," J. L. White, Mgr. of the Albany Division of the Oregon Power Co. said: "It is a fact that it will not pay to make long and costly transmission line extensions solely for the purpose of serving a scattered farm load, although it is equally true that a farming load will pay as a byproduct when such extensions already exist or are being made to take care of other classes of business. Before a great many years the country will be covered by a network of transmission and distribution lines reaching out from a central point to small communities, and incidentally furnishing power for many other purposes along the way. It has been demonstrated time and again that the electric method of doing things tends for greater efficiency. Starting with water power converted to electric power we can go on producing forever any mechanical operation. We can re-fertilize our lands, cultivate them, harvest and transport the crops to market, cook our meals, light and heat our homes, etc., and do it efficiently. The great problem of all ages has always been to connect the producer and the consumer. If we could produce, distribute, and consume all other products as efficiently and as simply as we can electricity, this great loss between production and consumption would be reduced 80 to 90%."

The Corrugated Bar Co., Buffalo, recently secured through its St. Louis office a contract for 6,400,000 lb. of bars, for the new cotton warehouse at New Orleans. When it is recalled that this cotton warehouse is one of the largest structures of its kind in existence, and as it is probably the forerunner of many similar structures in the South, due to a new warehousing plan, it means more than the initial order. The cotton warehouse in New Orleans is to be owned by the municipality, the same as the dock system and railways adjacent to the docks. The contract for the warehouse was awarded to the Jefferson Construction Co., New Orleans.

James Milne & Co., 11th Regent St., London, and 30 Church St., New York, N. Y., wants an agency for gas engines and allied machinery.

Thomas W. Golding, Assoc. Mem., Am. Soc. C. E., Structural Engr., has removed his office to the Central Bldg., 25 West 42d St., New York, N. Y.

Cost of Cast-Iron Pipe

The accompanying table shows the cost of cast-iron pipe purchased by the Metropolitan Water and Sewage Board of Massachusetts from 1895 to the end of 1914, and previous to that date from 1868, by the Boston Water Department. The figures are computed from a table prepared by Dexter Brackett, Chief Engineer of Water-Works. Some explanation is necessary for their proper understanding. Prior to 1894, pipe was bought in tons of 2240 lb., and since that date in tons of 2000 lb. The table, however, has been computed for tons of 2000 lb. In a number of years, several lots of pipe were purchased, and for the purpose of this table an average was computed of the various lots. In the table four columns are given, one showing the number of tons of pipe larger than 20 in., purchased, and adjacent, the cost; in another column the number of tons purchased from 10 to 20 in. with the cost. These figures do not represent the cost of pipe at the foundry, nor the selling price at the foundry, but simply what one purchasing department paid for its pipe for a number of years.

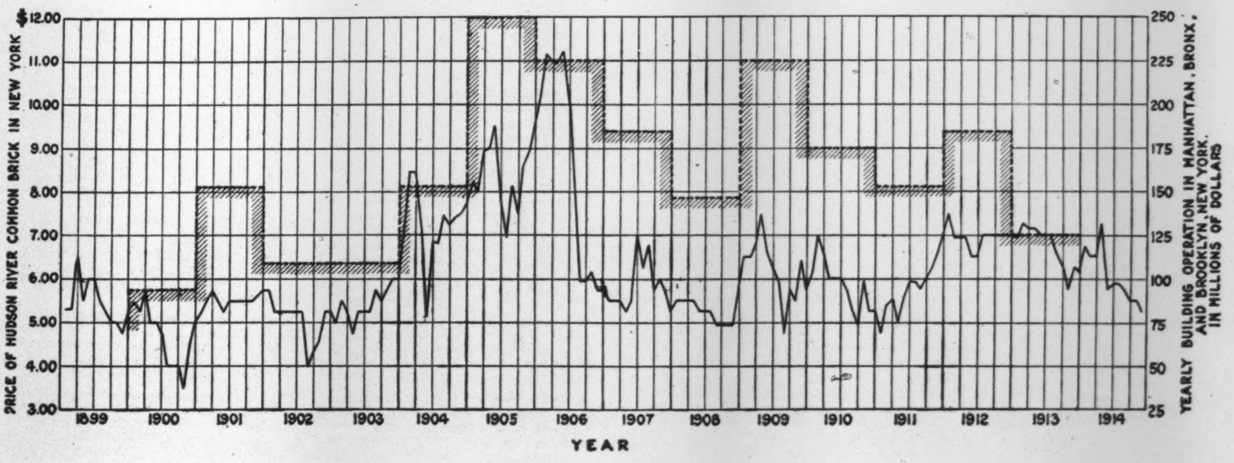
CAST-IRON PIPE IN BOSTON

	20-In. and Larger		10-In. to 20-In.	
Year Purchased	Tons Purchased	Price per Net Ton	Tons Purchased	Price per Net Ton
1868	2,850	$75.78	1,430	$72.40
1870	1,310	53.00	2,732	52.69
1871	....	....	1,726	57.50
1873	....	....	1,652	61.03
1874	1,934	51.55	2,846	48.87
1875	336	46.00	3,858	42.00
1876	....	....	2,442	35.00
1877	3,808	28.94	605	30.00
1878	538	25.92	1,086	26.47
1880	5,624	40.95	778	42.00
1881	28	31.90	756	31.90
1882	....	....	908	39.00
1883	1,188	26.24	750	36.80
1885	3,158	26.45	1,160	29.05
1886	....	....	1,198	29.40
1887	2,906	33.42	2,218	31.66
1888	....	....	1,568	28.45
1889	1,624	27.45	930	27.55
1890	1,008	30.34	1,848	30.89
1891	1,456	27.95	1,848	27.80
1892	....	....	1,904	25.40
1893	1,668	25.21	112	25.94
1894	1,692	22.45	2,016	22.45
1895	12,152	20.65	....	....
1896	28,955	19.21	1,395	18.18
1897	22,837	17.56	376	16.82
1898	1,958	17.55	2,548	16.84
1899	1,708	18.76	....	....
1901	18,682	24.25	....	....
1902	....	....	417	25.40
1908	4,251	22.40	....	....
1909	9,736	24.37	753	22.98
1910	1,657	24.72	....	....
1911	2,429	21.60	60	21.60
1912	107	23.50	20	23.50
1913	403	23.00	....	....
1914	9,112	20.00	30	20.90

Brick Prices and Building Operations

Remarkable for the slight change in price rather than any other one thing has been the course of the brick market in New York for the last few years. Figures recently compiled by the "Record and Guide," New York, have been used in the accompanying chart. The only real advance was during the building of the Rapid Transit System and during the building boom which followed. The price of $7 per thousand has only been exceeded on a few occasions since the culmination of that boom in the early months of 1907. The building operations in the three principal boroughs of New York City expressed in millions of dollars are also shown. There is no apparent relation between the two.

BUILDING OPERATIONS AND THE PRICE OF BRICK IN NEW YORK



RAILWAYS

Massachusetts—The Walworth Mfg. Co. has applied for permission to construct a two-mile railway along the water front at South Boston, Mass., from the freight yards of the New York, New Haven & Hartford R.R. to Marine Park.

Pennsylvania—Pennsylvania Lines West of Pittsburgh—According to press reports, this company contemplates an expenditure of $500,000 for doubling the capacity of its yards at Midland, Penn. Thomas Rodd, Pittsburgh, is Ch. Engr.

Virginia—Southern Ry.—This company, it is reported, is receiving bids for the construction of a second track from Orange to Charlottesville, Va., about 28 miles. W. H. Wells, Washington, D. C., is Ch. Engr. Constr.

Florida—Palm Beach & Everglades Ry.—This company has applied for a charter to construct a 40-mile railway from Palm Beach to Lake Okeechobee. James A. Moore, Hotel Halcyon, Miami, is Gen. Mgr.

Florida—According to press reports, the Dowling-Shands Lumber Co. is interested in the construction of a railway from Green Cove Springs to Starke, Fla., about 25 miles.

✚Mississippi—Meridian & Memphis Ry.—This company has awarded a contract to the PURDUE CONSTRUCTION CO. for the extension of its railway from Union to Sebastopol, Miss., about 15 miles. S. A. Neville, Meridian, Miss., is Vice-Pres.

Wisconsin—Waushara County R.R.—This company has been incorporated to construct a railway from Poysippi and Red Granite, Wis., about 8½ miles. The incorporators are Richard Frank, J. E. Wendt, O. W. Strapp and O. L. Christofferson.

Wisconsin—Montana-Waumandee Ry.—This company, recently organized, is making surveys for its proposed railway which will extend from a point on the Chicago, Burlington & Quincy R.R. through Waumandee to Montana, Wis. H. G. Hawley, Waumandee, Wis., is Ch. Engr. Noted Dec. 17.

Kansas—Kansas & Oklahoma Southern Ry.—This company is making financial arrangements for the completion of its 61-mile extension from Caney, Kan., to Vinita, Okla.

South Dakota—Chicago & Northwestern Ry.—Plans are being made by this company to start work in the spring on the extension of its line from Winner, S. D., through Tripp County into Mellette County. W. H. Finley, Chicago, Ill., is Ch. Engr.

Oklahoma—Kansas & Oklahoma Southern Ry.—See item under Kansas.

Arizona—Magma-Arizona R.R.—This company is being organized for the purpose of constructing a railway from the works of the Magma Copper Co., Superior, Ariz., to Queen Creek and Webster Siding.

Washington—Vancouver Northern R.R.—Henry Grass and O. W. Ford, Vancouver, Wash., are interested in this company, which was recently organized for constructing an electric railway from Vancouver, Wash., to Portland, Ore.

Ontario—The Canadian Northern Ry. and the Canadian Northern Ontario Ry. have applied for an extension of time in which to extend and construct branch lines. The proposed lines are as follows: From Strathcona, Alta., to Calgary, from near Swan River to the Saskatchewan River, from Regina, Sask., to Red Deer River, from Regina to Elbow, from Winnipeg, Man., to the eastern and southern boundaries of Manitoba; in Ontario, from Washago to Kincardine, Armprior to Gananoque, Pembroke to Cobourg, Frenchman's Bay to Owen Sound, Niagara River to Goderich, Hawkesbury to Leeds or Lanary County, Parry Sound to North Bay, Berlin to Toronto, Berlin to Woodstock, Sarnia to Chatham and Orillia to Goderich. M. H. McLeod, Winnipeg, Man., is Ch. Eng. of the Canadian Northern and A. F. Stewart, Toronto, Ont., is Ch. Engr. of Canadian Northern Ontario.

ELECTRIC RAILWAYS

Penacook, N. H.—(Concord post office)—The citizens of Penacook and Boscawen are considering the extension of an electric railway from Penacook to Boscawen Plains.

Newbury, Mass.—(Newburyport post office)—The Massachusetts Northwestern St. Ry. Co. has applied to the City Council for a franchise to construct an electric railway in Newbury to Parker River pavilion.

Worcester, Mass.—The Worcester Consolidated St. Ry. plans to double track its line on Pleasant St., from Richmond to Moore Ave., with a possible view of extending the double tracks to Tatnuk Sq.

Hartford, Conn.—The Norwich, Colchester & Hartford Traction Co. has been incorporated to construct an electric railway to connect Norwich, Bozah, Lebanon, Colchester, Marlborough, Glastonbury and East Hartford. The incorporators include Frank Cronin, Arthur Manning and Wells Strickland.

Thompsonville, Conn.—The Hartford & Springfield St. Ry., Hartford, Conn., intends to introduce into the incoming legislature a bill to amend its charter as to secure the privilege of building a branch line to connect Thompsonville and Suffield. The plan is to build a line from the local wating station through Main St., Thompsonville, and across the Connecticut River to unite with the present Suffield railway at a point on Mapleton Ave., about three miles.

Morristown, N. J.—Bondholders of the New Jersey & Pennsylvania R.R., represented by Benjamin Paskus, plan to purchase the road, running from Whitehouse to Watnong. About $10,000 will be expended to place the line in operation. An extension of the line into Morristown is contemplated.

Leisenring, Penn.—The West Penn Traction Co. contemplates extending its electric railway from Leisenring to Uniontown.

Newport News, Va.—The City Council has granted a franchise to the Newport News & Hampton Ry., Gas & Electric Co., to extend its line down Jefferson Ave. to the municipal boat harbor.

Parkersburg, W. Va.—The Marietta-Parkersburg Interurban Co. has been incorporated to construct a ten-mile electric railway from Parkersburg, W. Va., to Marietta, Ohio. The incorporators are John Kaiser, C. C. Middleswart and M. M. Rose, Marietta, Ohio, and H. H. Archer, Kenner B. Stephenson, Parkersburg.

Charleston, S. C.—The Charleston Consolidated Ry. & Lighting Co. is considering plans for the construction of a electric railway from the United States Navy Yard to Nort Charleston. George H. Waring, Charleston, is Vice-Pres. an Gen. Mgr.

Lula, Ga.—The Lula-Homer Ry. Co. has completed plans for the construction of a railway from Lula to Homer, abou 14 miles. D. G. Zeigler & Sons, Lula, are interested. Note Oct. 15.

Birmingham, Ala.—The Birmingham Ry., Light & Powe Co. has applied to the City Council for a franchise to construct an electric railway from the intersection of Fifteenth Ave., S., and 20th St., S., to Key Circle in the Milner Land Co.'s new division in Birmingham. J. P. H. de Windt, Birmingham, is Gen. Mgr.

Louisville, Ky.—The Louisville Ry. plans to reconstruct its West Chestnut St. line, crossing over to Madison St. and extending west to Shawnee Park, a distance of about one mile.

Columbus, Ohio—The East Linden Electric Ry. Co. contemplates the construction of an electric railway from Leonard Ave., Columbus, to East Linden, about four miles.

Evansville, Ind.—The Public Utilities Co. contemplates the Bell St. extension for a distance of about two miles.

Coffeyville, Kan.—The Union Traction Co. plans to extend its lines.

Salina, Kan.—The Salina St. Ry. plans to build a double track line to the New Union Station.

Beaumont, Tex.—The Houston & Beaumont Interurban Ry. Co. is considering plans for the construction of an electric railway to connect Beaumont, Houston and Anahuac. Anson Miller, G. L. Tufts and L. W. Schwartz, Anahuac, are interested.

Marshall, Tex.—A. B. Blivens and assoicates have applied to the City Council for a franchise to construct an electric railway through Marshall. This is part of a proposed line to connect Marshall, Tex., and Shreveport, La.

Medford, Ore.—Plans are being prepared by the Southern Oregon Traction Co., for the extension of its electric railway in Medford. C. G. Bullis, Medford, is Secy. and Gen. Mgr.

Montreal, Que.—The Montreal Tramways Co. has applied for a franchise to construct an electric railway in Mount Royal. J. E. Hutcheson, Montreal, is Gen. Mgr.

LIGHT, HEAT AND POWER

South Hadley Falls, Mass.—At a recent special meeting, the Board of Selectmen voted to appropriate $40,000 for the purpose of equipping the municipal electric-light plant to generate its own energy, which has heretofore been purchased from the Amherst Power Co.

New York, N. Y.—(Borough of Brooklyn)—Bids will be received until Jan. 25, by C. B. J. Snyder, Supt. of School Buildings, Park Ave. and 59th St., for electrical equipment for new Public School 95, Van Sicklen St. and Neck Rd., Brooklyn.

New York, N. Y.—(Borough of Manhattan—(Official)—Bids will be received until noon, Jan. 29, by the Board of Trustees, Bellevue and Allied Hospitals, 26th St. and First Ave., for reconstructing the existing branch circuits of the electric lighting systems, additional gas piping and gas and electric fixtures for the main building of the Harlem Hospital, 136th and 137th St. and Lenox Ave., Borough of Manhattan. John W. Brannan, M. D., is Pres., Bd. of Trustees.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 3 p.m., Jan. 25, by C. B. J. Snyder, Supt. of School Buildings, Park Ave. and 59th St., for heating and ventilating apparatus and temperature regulation in additions to and alterations in Public School 36, on Stagg and Ten Eyck St., between Bushwick Ave. and Waterbury St., Borough of Brooklyn.

Allenhurst, N. J.—Press reports state that Joseph B. Rider, 29 Broadway, New York, N. Y., is preparing plans for an electric-light plant to be built in Allenhurst.

Perth Amboy, N. J.—The Board of Alderman has passed an ordinance for issuing $150,000 in bonds to be used for the construction of a municipal electric-light plant, for which the citizens voted at the November election. S. J. Mason is City Engr. Noted Nov. 19.

Bath, Penn.—It is reported that the Borough Council is considering plans for the establishment of a municipal electric-light plant.

Holmesburg, Penn.—The lowest bid received by the Department of Public Health and Charities, Philadelphia, for the construction of a power plant at the Home for the Indigent, Holmesburg, was that of W. W. Austin at $56,537. Bids were opened Jan. 12. Noted Dec. 3 and Jan. 7.

Philadelphia, Penn.—The Philadelphia Dye Works has had plans prepared by W. E. S. Dyer, Land Title Bldg., for the construction of a one-story brick power plant and boiler house at Hancock and Berks St. The equipment will include boilers, generators, motors, stacks, etc.

Grundy, Va.—The City Council contemplates the installation of a municipal electric-light plant. It is further reported that an ice factory will be built in connection with the electric plant.

Fremont, Mich.—At a recent special election, the citizens voted to grant a franchise to the Grand Rapids-Muskegon Power Co., Grand Rapids, to supply electricity in Fremont. It is reported that this company will take over the municipal plant of Fremont at $13,000. S. A. Freshney, Grand Rapids, is Mgr. of the Grand Rapids-Muskegon Co.

Hillsdale, Mich.—The City Council has authorized the Board of Public Works to install a new 350-hp. water-tube boiler with stoker and equipment in the municipal electric-light plant, replacing the present 80-hp. boiler. The estimated cost of the new boiler is $7500. J. C. Hanson is Mgr., Cont. Agt. and Supt. of the plant.

Saginaw, Mich.—The City Council has been petitioned to call a special election for Feb. 23, to vote on the question of issuing $750,000 in bonds to be used in constructing a municipal electric-light plant. Noted Aug. 13, Oct. 15 and Jan. 7.

Rochester, Ill.—It is reported that the R. Haas Electric & Mfg. Co., Springfield, Ill., has applied to the Village Board for a franchise to build and operate an electric-light plant in Rochester for a period of 20 years.

Oregon, Wis.—It is reported that the installation of a municipal electric-light plant for Oregon is being considered.

Rushmore, Minn.—An electric lighting system is being installed in Rushmore, for which the energy will be obtained from the municipal power plant at Worthington, ten miles distant. A 6600-volt transmission line is now being constructed to supply the service.

Alliance, Neb.—It is reported that the Gas Construction Co. will build a gas plant at Alliance, to cost about $40,000. J. C. Martin, Omaha, is representative of the company.

Trent, S. D.—At a recent special election, the citizens voted in favor of granting a 25-year franchise to the Flandreau Light & Power Co., Flandreau, to furnish electric lights for the town.

Vermilion, S. D.—It is reported that the City Commissioners are considering the matter of purchasing the electric-light plant owned by the Vermilion Milling & Electric Co., to be owned and operated as a municipal plant.

Lusk, Wyo.—At a recent special election, the citizens voted in favor of issuing $8000 in bonds to be used for the installation of a municipal electric-light plant.

University Station, Mo.—(St. Louis post office)—It is reported that a special election will soon be held to vote on the question of issuing $100,000 in bonds to be used for the construction of a municipal electric-light plant with underground conduits. August Henman is Mayor.

San Angelo, Tex.—It is reported that the San Angelo Car Co. will build a new power station, and construct extensions to its lines. J. D. Sugg is owner.

Yale, Okla.—See item under "Water Supply—Irrigation."

Pueblo, Colo.—It is reported that the question of issuing $80,000 in bonds, the proceeds to be used for the construction of a municipal electric-light plant, will be submitted to the voters at the spring election.

Alturas, Calif.—The Union Gas Co., recently organized with a capital of $75,000, plans to build a gas plant at Alturas, and another one at Susanville, Calif. R. R. Rice and J. McCosh Smith are interested.

+Longbeach, Calif.—The City Trustees have awarded the contract for the installation of an electric-lighting system in the district bounded by Broadway, Alamitos, Golden and Ocean Ave. to the WOODILL & HULSE ELECTRIC CO., 111 East Third St., Los Angeles, at $25,415.

Dundalk, Ont.—It is reported that plans will be prepared and bids asked soon for the construction of a new municipal electric-light and power plant. M. W. Ridley, Dundalk, is in charge of the work.

Shelburne, Ont.—The ratepayers have voted in favor of an appropriation to purchase plant and equipment for distributing electric power. The estimated cost of the work is $14,920. Thomas Whalley is Town Clk.

BRIDGES

Greenfield, Mass.—Plans have been prepared for a reinforced-concrete bridge, to cost about $6500, over the Green River, at the site of the present Wiley and Russell Bridge. Eugene B. Blake, William A. Davenport and Frederick E. Hawks form the Committee in Charge.

Central Falls, R. I.—(Official)—Plans submitted by Howard F. Esten, Consult. Engr., 18 East Ave., Pawtucket, R. I., for the construction of a bridge over the Blackstone River between the City of Central Falls and the Town of Cumberland, were accepted by the Bridge Commission. Bids will be advertised for the construction of the bridge within the next ten days. Noted June 18 and 25, Oct. 1.

Waterbury, Conn.—Plans are being prepared by Robert A. Cairns, City Engr., for a bridge over the Naugatuck River at Bank St. The bridge will be 54 ft. wide and 180 ft. long, one span of 60 ft. and two of 50 ft. each. Reinforced concrete, stone masonry and steel spans are being considered. The estimated cost is $75,000.

Harrisburg, Penn.—Press reports state that the Cumberland Valley R.R., a part of the Pennsylvania system, will shortly begin construction of a reinforced-concrete bridge to replace its present steel bridge over the Susquehanna River at Harrisburg. T. B. Kennedy, Chambersburg, Penn., is Ch. Engr. Noted Jan. 1 and 15, Apr. 16, 1914.

+★Pittsburgh, Penn.—The Department of Public Works has awarded the contract for the construction of the steel superstructure of the Sylvan Ave. Bridge to the McCLINTIC-MARSHALL CONSTRUCTION CO., Pittsburgh, at $44,725. Robert Swan is Dir. of Pub. Wks. Noted Dec. 10.

Covington, Va.—The Circuit Court of Alleghany County has rejected all bids received Jan. 4 for the construction of a 100-ft. steel or reinforced concrete bridge over Dunlaps Creek about 5½ miles from Alleghany. The contract will probably be readvertised. Noted Dec. 24.

Richmond, Va.—(Official)—Bids will be received until 11 a.m., Jan. 28, by the State Highway Commission for the construction of a reinforced concrete bridge over the Chickahominy River about three-quarters of a mile from Ellerson, between Henrico and Hanover Counties. G. P. Coleman is State Highway Comr.

Bradentown, Fla.—Bids will be received until 7 p.m., Jan. 22, by W. H. Tracy, Comr. of Pub. Wks., for the construction of a Scherzer rolling lift bridge. Bids will also be received on alternate plans prepared by the bidder. All bids received, Dec. 11, for this work were rejected. Noted Dec. 10 and 24.

+Fort Lauderdale, Fla.—The Board of Commissioners of Dade County has awarded the contract for the construction of a bridge across the New River at Fort Lauderdale to the CHAMPION BRIDGE CO., Wilmington, Ohio, at $22,000. Noted July 23, Aug. 20, Oct. 22, Nov. 19 and Dec. 24.

Cordova, Ala.—It is reported that the Board of Commissioners of Walker County, Jasper, has decided, in connection with the improvement of the Birmingham-Jasper Highway, to build a steel bridge over the Warrior River at Cordova, to cost from $25,000 to $40,000. Noted May 19, 1914.

Montgomery, Ala.—The Commissioners of Montgomery County, Montgomery, and of Elmere County, Wetumpka, plan to build a bridge across the Tallapoosa River, to cost about $50,000. The cost will be shared equally by the two counties.

+Lake Charles, La.—The Police Jury of Calcasieu Parish has awarded the contract for the construction of 60 bridges and culverts on various highways to HARRISON & BALM, Memphis, Tenn., at about $40,000. F. H. Frankland is Bridge Engr. Noted Dec. 24.

Clinton, Tenn.—The Anderson County Court has voted to build three bridges over the Clinch River, two to be located at Clinton and the other at Edgemoor.

Harriman, Tenn.—The Commissioners of Roane County, Kingston, are considering the construction of a bridge over the Emory River to connect Harriman and South Harriman.

Memphis, Tenn.—The Memphis & Arkansas Railway Bridge & Terminal Co. announces that financial arrangements for resuming work on the superstructure of its bridge over the Mississippi River have been completed, and it hoped that the structure may be completed by the end of this year. Noted Aug. 15 and 29, 1912; June 26, 1913, and Mar. 19, 1914.

+Nashville, Tenn.—The Louisville & Nashville R.R. has awarded the contract for the construction of a 150-ft. reinforced-concrete bridge over the Franklin Pike south of Nashville, to the MEACHAM CONTRACTING CO., Nashville.

★Chicago, Ill.—(Official)—The following bids were received, Jan. 14, by the Sanitary District of Chicago for the steel superstructures of two highway bridges over the Calumet Sag Channel, (a) West 82nd St. Bridge, (b) Burr Oak Ave. Bridge: Central States Bridge Co., Indianapolis, Ind., (a) $4574, (b) $15,950; Lackawanna Bridge Co., Buffalo, N. Y., (a) $4306, (b) $14,467; Milwaukee Bridge Co., Milwaukee, Wis., (a) $4180, (b) $12,744; Chicago Bridge & Iron Co., (a) $3780, (b) $11,550, (probably awarded contract): Toledo Bridge & Crane Co., Toledo, Ohio, (a) $3898, (b) $13,400; Penn Bridge Co., Beaver Falls, Penn., (a) $4785, (b) $14,985; Fort Pitt Bridge Works, Pittsburgh, Penn., (a) $4190, (b) $13,100; Klemp, Simpson & Co., (a) $4879, (b) $15,275; Wisconsin Bridge & Iron Co., (a) $4495, (b) $13,760; McClintic-Marshall Co., Pittsburgh, (a) $4500, (b) $14,030; King Bridge Co., Cleveland, Ohio, (a) $4400, (b) $12,950; Strobel Steel Construction Co., (a) $4950, (b) $14,646; Hansell Elcock Co., (a) $3970, (b) $12,450; Kenwood Bridge Co., (a) $4004, (b) $14,004; Morava Construction Co., (a) $4253, (b) $13,445; American Bridge Co., (a) $4697, (b) $14,493. All bidders of Chicago unless otherwise stated. Noted Jan. 7.

Colona, Ill.—Plans have been completed for the construction of a bridge over the Rock River at Colona, to cost approximately $60,000, of which Rock Island and Henry Counties will each pay one-half. The bridge will be of the deck girder type, 20 ft. wide and about 760 ft. long. It is said that the plans will be finally approved at the March meeting of the county boards, after which bids will be asked for the construction of the bridge. Wallace Treichler, County Supt. of Highways, Rock Island, is Engr.-in-Charge.

Greenville, Ill.—Bids will be received until 11 a.m., Jan. 26, by the Town Clerk for a reinforced concrete bridge in Central Township, Bond County. The estimated cost is $6450. R. O. Young, Sorento, is Supt. of Highways of Bond County.

Pontiac, Ill.—It is reported that the Commissioners of Livingston County plan to build a new concrete bridge over the Vermillion River about three miles from Pontiac. The estimated cost is $10,000. R. W. Osborn is County Supt. of Highways.

Superior, Wis.—The Board of Public Works is receiving bids for repairs to the Lamborn Ave. Bridge. R. E. McKeogue is City Clk.

Superior, Wis.—Tentative plans have been prepared by E. B. Banks, City Engr., for the construction of a viaduct over the railway tracks at 21st Ave. The estimated cost of the structure is $89,000. It is expected that construction work wil begin in the early summer.

Mason City, Iowa—According to press reports, bids will be received in February by the Board of Supervisors of Cerro Gordo County for the construction of a concrete deck girder bridge over Calmus Creek on North Main St., to cost about $4500; bids will also be received for a number of small bridges, estimated total cost, $20,000. R. E. Robertson is County Engr.

Salina, Kan.—(Official)—Bids will be received until Feb. 2, by the Board of Commissioners of Saline County for the construction of a concrete bridge over the Smoky Hill River at Iron Ave., Salina. The estimated cost is $30,000. A. C. Anderson is County Clk. Wilmarth & Zerbe, Salina, are Engrs.-in-Charge. Noted Aug. 27, Nov. 12 and 26, Dec. 31.

Ayr, Neb.—It is reported that the Commissioners of Adams County, Hastings, have decided to build a bridge over the Little Blue River, south of Ayr. It will be about 250 ft. long.

Omaha, Neb.—The Boards of Commissioners of Douglas and Saunders Counties, acting jointly, have filed a request with the State Engineer for a state aid bridge over the Platte River about 1½ miles south of Yutan, Saunders County. The request is for a steel bridge. The estimated cost is $50,000.

Miller, S. D.—(Official)—The Board of Commissioners of Hand County has rejected all bids received, Jan. 8, for the construction and repair of county bridges during 1915. D. A. Lewis is County Audr. Noted Nov. 26.

+Livingston, Mont.—The Board of Commissioners of Park County has awarded the contract for the construction of a steel bridge at H St. to the MINNEAPOLIS STEEL & MACHINERY CO., Minneapolis, Minn., at $6500.

Austin, Tex.—Press reports state that the city has had plans prepared by G. S. Iredell, Engr., for a reinforced concrete bridge over Shoal Creek at 10th St. It will be 28 ft. wide with two spans of 36 ft. each. The estimated cost is $4000.

Tucumcari, N. M.—The Board of Commissioners of Quay County has requested Junius W. Johnson, Asst. State Engr., to prepare plans for a pile bridge across Tucumcari Creek, about 18 miles from Tucumcari. These plans will be considered at the next meeting of the Board.

✚Twin Falls, Idaho—The Board of Commissioners of Twin Falls County has awarded the contract for the construction of a bridge over the Snake River near Murtaugh, to J. H. FORBES & CO., Caldwell, Idaho, at $5946. Noted Oct. 15.

✚Hoquiam, Wash.—The Northern Pacific Ry. has awarded the contract for the superstructure of a bridge over the Hoquiam River to McCREARY & WILLARD, Spokane, Wash. The work includes a 256-ft. steel draw span, a 70-ft. truss span and 90-ft. decking. Noted Dec. 24.

Seattle, Wash.—Bids will be received until 10 a.m., Jan. 25, by N. M. Wardell, Clk. Bd. of Comrs. of King County, for the construction of a bridge at 14th Ave. South.

Seattle, Wash.—(Official)—The approximate quantities required for the 15th Ave. Bridge over the Lake Washington Canal include 7000 cu.yd. concrete masonry, 1500 tons structural steel, 100 tons machinery, 3000 lin.ft. pile and timber trestle. The cost is estimated at $465,000.

From another source we learn that the Supreme Court of the State of Washington has recently decided that the bond issue of $829,000 for the construction of the Lake Washington Canal bridges was invalid, so it is improbable that bids for the work can be asked for some time. Noted Dec. 3 and 10, Jan. 7.

Tacoma, Wash.—The Chicago, Milwaukee & St. Paul Ry. has filed its application with the City Council for the permanent vacation of East T St., where the company will build a steel bridge about 150 ft. long, to cost about $50,000. E. O. Reeder, Seattle, is Asst. Ch. Engr.

✚Fredericton, N. B.—The Minister of Public Works has awarded contracts for the construction of two bridges in Queens County to W. R. FAWCETT, Temperance Vale, N. B., and ROBERT FORBES, Gibson, N. B., at approximately $3000 each.

London, Ont. — The ratepayers of the city have voted against a bylaw providing for the construction of a $40,000 bridge across Richmond St.

Regina, Sask.—The Board of Railway Commissioners has authorized the Works Department of the City Council to have plans prepared for the construction of a bridge over the Canadian Pacific Ry. tracks at Hamilton St. The plans are to be approved by the Bridge Engineer of the Canadian Pacific Ry. and the Railway Commissioners. F. McArthur is Engr. Noted July 30, 1914.

Vancouver, B. C.—The Railway Board of Commissioners has authorized the Kettle Valley Ry. to build three new bridges over the Coquihalla River. A. McCulloch, Penticton, B. C., is Ch. Engr.

Vancouver, B. C.—The Great Northern Ry. has filed plans with the City Engineers for the Clark Drive and Woodland Drive bridges over the Grandview cut, and for approach to the Commercial Drive Bridge from Eighth Ave. The estimated cost of this work is $350,000.

WATER SUPPLY—IRRIGATION

Boston, Mass.—Bids will be received until Jan. 27, by the Supply Department, for 7020 ⅝ to 3-in. water meters and for brass and composition castings for the Fire Department. D. Frank Doherty is Supt.

★Fitchburg, Mass.—(Official)—Bids will be received until 2 p.m., Mar. 2, by the Board of Water Commissioners, for constructing the Ashby reservoir for the Fitchburg water-supply system. Metcalf & Eddy, Boston, are Consult. Engrs. Thomas P. Sheldon is Comr. Noted Dec. 4, 1913, Jan. 8 and Dec. 3, 1914.

Salem, Mass.—Press reports state that the Water Commissioners of Salem and Beverly have had plans prepared for taking water from the Ipswich River as an additional supply. The estimated cost is $130,000. Noted Aug. 20.

East Hartford, Conn.—The citizens plan to construct a new dam and make improvements to the water system. The estimated cost is $30,000. John H. Walsh is Supt.

Batavia, N. Y.—The Common Council has appointed D. W. Tomlinson, Sr., and R. E. Chapin to supervise the installation of a water system. Water will be taken from the Tonawanda Creek and filtered mechanically.

✚Buffalo, N. Y.—The contract has been awarded to BUFFALO ELECTRIC CONSTRUCTION CO., at $48,900, for installing an electric plant at the Porter Ave. pumping station. Noted Dec. 24.

★Middletown, N. Y.—(Official)—Bids will be received until 4 p.m., Feb. 20, by J. C. Degnan, Comr. of Pub. Safety, Middletown, for laying 20-in. c.-i. water mains. For details see advertisement under "Contracts To Be Let."

Newark, N. Y.—The citizens contemplate installing a 1,080,000-gal. centrifugal pump with a 200-ft. head, a 10x12-ft. air compressor and 125-hp. automatic steam engines. S. Starth is Supt.

☞ **New York, N. Y.**—(Borough of Brooklyn)—(Official)—Bids will be received until 3 p.m., Jan. 28, by the Park Board, for c.-i. water pipe, and gates for Prospect Park. Cabot Ward is Pres., Comrs. of Park.

North Tonawanda, N. Y.—Bids will be received until Jan. 25 by John B. Batt, Supt. of Water Wks., for installing a chlorination plant at the water-works. Noted Aug. 6.

✚Atlantic City, N. J.—The contract for making improvements at the Absecon pumping station has been awarded by the Board of Commissioners to EDWIN L. BADER, Bartlett Bldg., Atlantic City, at $20,367. Bids opened Dec. 31. Noted Dec. 24.

Camden, N. J.—Charles H. Ellis, Mayor, in a message to the City Council, urges the installation of a high pressure water system along the river front.

Gloucester, N. J.—The City Council plans to make improvements to the water system. E. Aden Powell is Eng

Hawthorne, N. J.—(Official)—Bids will be received unt 8:15 p.m., Jan. 29, by the Commissioners for approximatel 3150 ft. of 14-in., 12,460 ft. of 12-in., 20,900 ft. of 8-in. an 47,180 ft. of 6-in. c.-i. pipe. John A. Shea is Borough Clk.

Jersey City, N. J.—Bids will be received until 2 p.m., Ja 28, by the Board of Commissioners, for special castings, hy drant connections, plugs, caps, sleeves, half-sleeves and an other special castings which may be required, except wate gate boxes and covers and manhole heads and covers.

Jersey City, N. J.—(Official)—Bids will be received unti 2 p.m., Jan. 28, by the Board of Commissioners, for valve for the water system from date of contract to Nov. 30, 1915 Michael I. Fagan is City Clk.

Jersey City, N. J.—(Official)—Bids will be received by the Board of Commissioners until 2 p.m., Jan. 28, for water gate boxes and covers and manhole heads and covers.

Gallitzin, Penn.—(Official)—Plans are being prepared for the construction of a municipal water system, estimated to cost $50,000. The time for receiving bids has not yet been set. D. W. Dillman is Borough Engr. Noted Dec. 10.

Indiana, Penn.—The Clymer Water Co. contemplates constructing a new pumping station. W. S. Hamilton is Supt.

Harrisonburg, Va.—The city contemplates building a filtration plant at an estimated cost of $40,000.

Saint Marys, W. Va.—The city plans to construct a reservoir, estimated to cost $8000. J. H. McBride is City Recdr.

✚Asheville, N. C.—Bids will be received until Feb. 12 by the city for laying 6000 ft. of water pipe and for grates and hydrants. F. L. Conder is City Clk. Noted Jan. 7.

Durham, N. C.—Plans have been prepared by Gilbert C. White, Engr., and submitted for the construction of a water system. The estimated cost is $450,000. Noted May 7 and June 4.

★Tampa, Fla.—(Official)—Bids will be received until noon, Feb. 15, by the Tampa Water Co., Charles R .McFarland, Gen. Mgr., for constructing a reinforced-concrete reservoir. For details see advertisement under "Contracts To Be Let." Noted July 16 and Jan. 7.

✚Plaquemine, La.—The contract for constructing a water system has been awarded to BASH & JAMES, Kansas City, Mo., at $35,790. Bids opened Jan. 5. Noted Nov. 26 and Dec. 24.

Bowling Green, Ohio—(Official)—The contract has been readvertised and bids will be received until noon, Feb. 12, by D. C. Brown, Secy., Bd. of Trustees of Bowling Green, State Normal College, Bowling Green, for constructing a fireproof building, stack, tunnel system, water system and softening plant, steam mains and pumps. Noted Dec. 17.

Chicago Junction, Ohio—The installation of a 2,000,000-gal. crank and flywheel pump and a crank and flywheel air compressor is contemplated by the city. Robert B. Smith is Supt.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Jan. 29, by the Director of Public Safety, for hub and spigot pipe, flange pipe, special castings and miscellaneous castings; valves and fire hydrants for the high-pressure fire system. Edward P. Durr is Secy.

Cleveland, Ohio—(Official)—Bids were received Dec. 18, by the Commissioner of Purchases and Supplies, for fire hydrants as follows: R. D. Wood & Co., Philadelphia, Penn., $25,545; Kennedy Valve Mfg. Co., Elmira, N. Y., $26,384 and Roe Stephens Mfg. Co., Detroit, Mich., $27,200. Noted Dec. 10.

✚Cleveland, Ohio—The contract for three steam-turbine, reduction-gear driven-centrifugal pumps for the Division Ave. pumping station has been awarded to DRAVO-DOYLE CO., Pittsburgh, Penn., at $129,667. Bids were opened Dec. 24. Noted Jan. 7.

Shadyside, Ohio—An election will be held Feb. 9 to vote on the question of issuing bonds for $45,000, the proceeds of which will be used for the construction of a water system. Noted Dec. 24.

Springfield, Ohio—Press reports state that bids will be received until Feb. 6 by the Building Commission for Infirmary Buildings, at office of County Auditor, Springfield, for constructing a water system for the new County Infirmary, Bethel Township. George McCord is Pres. Noted Oct. 29.

Woodsfield, Ohio—The Woodsfield Water Co. plans to install a mechanical filtration plant in the spring. The estimated cost is $7000. R. W. McKinney is Gen. Mgr.

✚South Bend, Ind.—The contract for c.-i. pipe and specials for the year 1915 for the water department has been awarded to LYNCHBURG FOUNDRY CO., Lynchburg, Va., at $21.75 per ton for c.-i. pipe and 2½c. per lb. for specials. Bids opened Dec. 30. Noted Dec. 17.

Redford, Mich.—(Official)—Bids will be received until 8:30 a.m., Feb. 1, by John Venus, Clk., for constructing a water system. Russell A. Murdock, 706 Free Press Bldg., Detroit, is Engr.

Joliet, Ill.—Bids will be received until Feb. 1 by Henry Odenthal, City Clk., for constructing a reservoir. Noted Nov. 12 and Dec. 3.

✚Wilmington, Ill.—The contract for constructing an elevated steel tank has been awarded to GLASGOW-McCANN CO., Joliet, at $4875. Noted Nov. 26.

Clintonville, Wis.—The citizens plan to install a 144,000-gal. direct connected to three-phase, 2200-volt motor at the waterworks. George D. Stewart is Supt.

✚St. Paul, Minn.—The contract for meters for the water system has been awarded by the Purchasing Committee to HENRY R. WORTHINGTON, New York, N. Y.; 2500 ⅝-in. meters, $5.35; 300 ¾-in., $7.70, and 85 2-in., $35. Noted Dec. 17.

Fairview, Mont.—The Council contemplates spending $40,000 for the construction of water and sewer systems.

Joplin, Mo.—Hugh McIndoe, Mayor, has been authorized by the Council to retain engineers to prepare plans for the construction of a municipal water system. Noted Oct. 8.

St. Louis, Mo.—Bids will be received until noon, Jan. 22, by the Board of Public Service for a 20,000,000-gal. steam turbine-driven centrifugal pump.

Slater, Mo.—T. C. Brooks & Son have been granted a franchise to construct and operate a water system. L. E. Shepherd is Supt.

Murfreesboro, Ark.—The Williams & Freeman Water & Light Co. has been incorporated with a capital of $10,000. J. E. Williams is Pres.

Rector, Ark.—(Official)—Bids will be received until Feb. 3 by J. C. Rogers, Chn. Bd. of Comrs., Water Imp. Dist. No. 1, for 10-in. wells. Frank L. Wilcox, Syndicate Trust Bldg., St. Louis, Mo., is Consult. Engr.

+Corpus Christi, Tex.—(Official)—Bids were received Jan. 8, for constructing a water system, as follows: LOUIS LOCK, Monroe, La., at $286,211 (awarded contract); Commercial Construction Co., $270,019; Foley Construction Co., $261,604; Fordon & Taylor Construction Co., $79,833 (all for steel pipe); Howard Construction Co., $300,160; Sherman Machine & Iron Works, $306,165; The Sykes Co., $319,640; and Tankawa Construction Co., $326,776 (c.-i. pipe). Noted Dec. 3 and 24.

Jacksonville, Tex.—The city contemplates building two impounding reservoirs, one on Pierce Branch and the other on Churchill Branch.

Cordell, Okla.—The city plans to spend $75,000 for the improvement of the water system. T. B. Wolford is Supt. Noted Mar. 19.

Dustin, Okla.—The citizens plan to spend $6000 to make extensions to the municipal water system.

Enid, Okla.—Bonds for $50,000 were voted at an election held Jan. 14, according to press reports. The proceeds will be used for the extension of the water system. Peter Bowers is Mayor.

Yale, Okla.—At an election held Dec. 31, the citizens voted in favor of issuing $32,000 in bonds, the proceeds of which will be used for the improvement of the water system and the construction of an electric-light plant. E. A. Pierson is Clk. Noted Oct. 22 and Dec. 24.

Ogden, Utah—Washington Jenkins, City Engr., is preparing plans for the extension of the water supply mains from Coldwater Cañon to the artesian wells in the Ogden Valley.

+Modesto, Calif.—The contract has been awarded by the Board of Directors of the Modesto Irrigation District, to E. K. FINNEY, at $12,464, for constructing the Curtis and Sproul canals. Noted July 9.

San Diego, Calif.—Plans have been completed by H. A. Whitney, City Hydraulic Engr., for the construction of the Bonita pipe line, to extend from the Otay main to 13th and H St., San Diego. The main will be 28-in. steel pipe with the necessary valves and fittings, and will be 40,500 ft. long. Noted Sept. 21.

Santa Paula, Calif.—The Pleasant Valley Lemon Co. plans to construct an irrigation system, estimated to cost $100,000. S. B. Kingsbury is Pres. and A. C. Hardison is Engr.

+Montreal, Que.—(Official)—The contract for constructing the Elgin basin pumping station has been awarded to T. F. DWYER, 414 Merchants Bank Bldg., Montreal, at $6082. Bids opened Jan. 12. Noted Jan. 7.

Aurora, Ont.—At an election held Jan. 4, the citizens voted in favor of issuing $8000 in bonds, the proceeds of which will be used for the construction of a water system.

Essex, Ont.—Bonds for $6500 were voted at a recent election by the citizens. The proceeds will be used for the improvement of the water system. Noted Jan. 14.

Fort William, Ont.—The Town Council plans to spend $5000 for making extensions to the water system. R. R. Knight is City Engr.

Athens, Greece—(Official)—A book in French and Greek, describing the proposed construction of a water and a sewer system for Athens and the Piræus, is on file with E. C. Porter, 409 Custom House, New York, N. Y. The concession is for 70 years. Work is to be started 20 days after ratification and completed in 12 years. S. Schliemann, Washington, D. C., is diplomatic representative of Greece to this country. Noted Jan. 7.

SEWERS

Boston, Mass.—Bids will be received until noon, Jan. 22, by Frank Doherty, Supt. of Supplies, for iron costings for manhole and catch-basin frames.

Boston, Mass.—Bids will be received until Jan. 26, by the Public Works Department, for constructing sewers in South, East, Kingston and Albany St. L. K. Rourke is Comr. Noted Nov. 12.

+Boston, Mass.—(Official)—The contract for the construction of the Faneuil Brook Valley Conduit was awarded by the Public Works Department to HENRY F. SPINACH, at $16,584. Other bids were: Anthony Cefalo, $16,661; J. Landis, $17,194; McCarthy & Walsh, $17,297; M. de Sisto, $17,391; J. J. Conway, $17,391; West Roxbury Trap Rock Co., $17,567; M. H. Kelley, $17,962; J. Driscoll & Son, $17,979; Merrimac Construction Co., $18,149; Anthony Barufaldi, $18,449; William L. Dolan, $18,979; and John McCourt & Co., $22,540. L. K. Rourke is Comr. Noted Dec. 17.

+Boston, Mass.—(Official)—Bids were received for constructing the Dent. St. brook sewer in West Roxbury District as follows: MERRIMAC CONSTRUCTION CO., at $25,466 (awarded contract); West Roxbury Trap Rock Co., $25,758; Peter Bompano Co., $28,008; James J. Conway, $29,272; Henry Spinach Contracting Co., $30,507; McCarthy & Walsh, $30,779; Michael Meehan, $30,946; M. de Sisto, $31,527; Antony Baruffaldi, $31,157; John Landis, $32,237; Charles Latorella, $33,495; Martino de Matteo, $33,758; Antony Cefalo, $33,894; William J. Barry, $34,170; Peter W. Hill, $34,170, and James Driscoll & Son Co., $35,029. L. K. Rourke is Comr. of Pub. Wks.

Hartford, Conn.—Bids will be received until 11 a.m., Jan. 26, by the Board of Contract and Supply, for constructing 2000 ft. of 10-, 15-, 18- and 20-in. sewers in Franklin Ave., Montowese St. and Victoria Rd.

Huntington, N. Y.—An ordinance has been adopted by the Town Board for the establishment of a new sewer district. The estimated cost is $98,000. George W. Fuller, 170 Broadway, New York, N. Y., is Engr. Noted Dec. 17.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., Jan. 28, by Marcus M. Marks, Pres., Borough of Manhattan, for changing sewers in various streets.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m, Jan. 28, by Maurice E. Connolly, Pres., Borough of Queens, for constructing sewers in various streets.

Rochester, N. Y.—According to press reports, plans are being prepared by Edwin A. Fisher, Rochester, for the construction of an auxiliary sewage-disposal plant for the Brighton Section. The estimated cost is $80,000.

Camden, N. J.—The City Council has passed an ordinance authorizing the construction of sewers in Louis, 26th St. and Harrison Ave. William D. Brown is Clk. Noted Dec. 24.

Jersey City, N. J.—George A. Johnson, New York, N. Y., has been retained as Consult, Engr., to prepare plans for the construction of a sewage disposal works. The money is not yet available. Noted Jan. 7.

Trenton, N. J.—Hering & Gregory, Engrs., New York, N. Y., have prepared plans, according to press reports, for the construction of a sewage-disposal plant and a sewage-pumping station. The estimated cost is $400,000.

Johnstown, Penn.—A report has been completed by Clark P. Collins, Engr., on the installation of a sewer system and sewage-disposal plant. The estimated cost is $353,383.

★Philadelphia, Penn.—(Official)—Bids will be received by M. L. Cooke, Dir., until noon, Feb. 4, for constructing a main sewer in Indiana St. The estimated cost is $200,000. For details see advertisement under "Contracts To Be Let.'"

Wilmington, Del.—An ordinance has been adopted by the City Council authorizing a bond issue of $75,000, the proceeds of which will be used for improvement to the sewer system. H. W. Howell is Mayor.

+Baltimore, Md.—(Official)—Bids were received by the Sewerage Commission for construction of sewers in Dist. 5-B under Contract 141 as follows: B. F. SWEETEN & SONS, $63,825 (awarded contract); M. O'Herron & Sons, $66,862; Slack & Slack, $68,333; Carozza Bros. & Co., $68,718; P. A. Rose, $69,262; Albert J. Boyle, $70,183; D. M. Andrews Co., $72,046; Gallagher & Bryan, $75,724; Ryan & Reilly Co., $76,854, and James Ferry & Sons, $78,524, and for Contract No. 142 for Section 3 of the Jones Falls Interceptor as follows: M. O'HERRON & SONS, $35,941 (awarded contract); Slack & Slack, $36,053; Ryan & Reilly, $39,694; James Ferry & Sons, $43,132, and Gallagher & Bryan, $43,302.

Columbia, S. C.—Bids will be received until 10 a.m., Jan. 29, by F. C. Wyse, Supt., for constructing 10 miles of sewers. Noted Jan. 7.

West Palm Beach, Fla.—Bids received Jan. 5 by the City Council for constructing sewers have been rejected. The contract will soon be readvertised for this work. The J. B. McCrary Co., Atlanta, Ga., is Engr. Noted Nov. 23 and Dec. 31.

Birmingham, Ala.—An ordinance has been adopted by the City Commission for the construction of a sanitary sewer in the Enon Ridge District. The estimated cost is $12,500. Julian Kendrick is City Engr.

Bellaire, Ohio—According to press reports, bonds for $15,897 have been sold, the proceeds of which will be used for sewer and street work.

Brewster, Ohio—According to press reports, bonds have been sold, the proceeds of which will be used for constructing a sanitary sewer system. Noted Dec. 24.

★Cambridge, Ohio—(Official)—Bids will be received by J. B. Clark, Dir. of Pub. Ser., until noon, Feb. 11, for sewer and street paving work. The estimated cost is $7000. For particulars see advertisement under "Contracts To Be Let."

Cincinnati, Ohio—(Official)—Bids will be received by Philip Fosdick, Dir. of Pub. Ser., until noon, Jan. 27, for the construction of main and lateral sewers in District No. 2.

+Cleveland, Ohio—Press reports state that the contract for constructing a sewer in East 93d St., from Carr Ave., N. E., to Lake Erie, has been awarded to WALTER P. GIBBONS, at $48,823. Noted Dec. 24.

Hamilton, Ohio—Press reports state that plans have been submitted by Frank Weaver, City Engr., for the construction of sanitary sewers in East Hamilton and Lindenwald.

Kent, Ohio—At a recent election the citizens voted in favor of issuing $90,000 in bonds for constructing a portion of a sanitary sewer system.

Lancaster, Ohio—Bids will be received by John A. Mayer, Dir. of Pub. Ser., until Jan. 28, for constructing a sewer in Wheeling St.

+Lorain, Ohio—(Official)—The contract for constructing a sanitary sewer in East 35th St., from Clifton to Dallas Ave., has been awarded to RANDALL & COOPER, Lorain, at $7092. Noted Dec. 24.

+Fort Wayne, Ind.—Press reports state that the contract for constructing a main sewer in the southeastern section of the city has been awarded to the S. G. SHEETS CO., South Bend, at $38,531. Noted Nov. 26.

+Indianapolis, Ind.—The contract for constructing a sewer in Warman Ave., from Morris St. and Eagle Creek to Tibbs Ave., has been awarded to the SHEEHAN CONSTRUCTION CO.

+North Chicago, Ill.—A contract has been awarded to ANTON DUDEK, at $13,630, for constructing sewers in Lincoln, South Victoria, 12th, 13th and 14th St.

Rockford, Ill.—Press reports state that bids will be received by W. W. Bennett, Pres. of the Bd. of Local Improvt., until Jan. 27, for constructing the Southeast End sewer District.

★Milwaukee, Wis.—See item under Miscellaneous; Sewers.

✚Clinton, Iowa—Press reports state that the contract for constructing a sewer in Fourth St. has been awarded to A. R. COFFEE, Decorah, at $5168. Noted Oct. 1.

Kenwood, Iowa—According to press reports the City Council contemplates constructing a sewage disposal plant, estimated to cost $25,000.

Postville, Iowa—Bids will be received until 7.30 p.m., Jan. 29, for the sale of $20,000 of the $25,000 in bonds which were voted Oct. 12. The proceeds will be used for the installation of a sewerage system. Noted Oct. 8 and Nov. 12.

Mitchell, S. D.—(Official)—Bids will be received until 8 p.m., Feb. 1, by Thomas Eastcott, City Audr., for constructing a lateral sewer.

Caruthersville, Mo.—According to press reports an election will be held Jan. 26, to vote on the question of issuing $32,000 in bonds for extending the sewer system.

Houston, Tex.—(Official)—Bids will be received by E. E. Sands, City Engr., until 2 p.m., Jan. 25, for the construction of reinforced-concrete collecting tanks. Estimated cost, $6600. Noted Nov. 12.

★San Antonio, Tex.—Official)—Bids will be received by Fred Fries, City Clk., until 4 p.m., Feb. 1, for the construction and completion of sanitary and storm water sewers. The contract was previously let to W. G. Schuwirth Co. For particulars see advertisement under "Contracts To Be Let." Noted Nov. 26.

San Benito, Tex.—Press reports state that an election will be held Feb. 2, to vote on the question of issuing $8000 in bonds for the construction and improvement of the sewage disposal plant and the streets.

Tulsa, Okla.—According to press reports the City Council contemplates extending the sanitary and storm systems, at an estimated cost of $12,000 and $80,000 respectively. T. C. Hughes is City Engr.

Portland, Ore.—The only bid received by the City Commission for the reconstruction of the East Alder St. sewer was that of Giebisch & Joplin, at $23,969.

Eureka, Calif.—According to press reports plans will be prepared by G. A. Strand, City Engr., for the construction of septic tanks to take care of the sewage emptying into Elk River.

✚San Francisco, Calif.—The Board of Public Works has awarded a contract for the construction of a sewer in 19th Ave., from Noriega St. to 20th Ave., to KARL EHRHART, at $49,984.

Santa Monica, Calif.—Press reports state that John Morton, City Engr., has prepared plans for a system of storm sewers, estimated to cost $225,000. Noted Dec. 3.

Sierra Madre, Calif.—According to press reports the City Trustees contemplate constructing a sewer system in Cañon Park. W. F. Bixby, 502 Mason Bldg., Los Angeles, is City Engr.

GARBAGE

Shelton, Conn.—Bids will be received until Feb. 9, by George E. Barlow, Warden, for the removal and disposal of ashes and garbage in Shelton Borough.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received by Maurice E. Connolly, Borough Pres., until 11 a.m., Jan. 29, for the general construction of a destructor plant at Flushing Ave., near Metropolitan Ave., Ridgewood. The amount of security required is $30,000.

✚★Hibbing, Minn.—The contract for the installation of a garbage incinerator has been awarded to the McGUIRE INCINERATOR CO., Chicago, at $9500. Noted Dec. 31, Jan. 14 and 21.

Joplin, Mo.—Press reports stated that J. Fricke, St. Louis, contemplates the construction of an incinerating plant.

Fresno, Calif.—E. M. Prescott, of the Fresno Brick & Tile Co., has made a proposition to the city, agreeing to build a garbage incinerator to cost $60,000, if the city will grant him the privilege of the collection and disposal of garbage.

STREETS AND ROADS

Boston, Mass.—Press reports state that the City Council contemplates the widening of Exchange St., from 25 to 60 ft., Channey St., from 40 to 70 ft. and Arch St. from 50 to 70 ft. L. K. Rourke is Comr. of Pub. Wks.

East Providence, R. I.—(Official)—Bids will be received by the Town Council until 8 p.m., Feb. 2 for 100,000 granite blocks to be delivered at Fox Point, R. I.

✚Arcade, N. Y.—Press reports state that the contract for paving East Main, Liberty, Church and Park St. with brick has been awarded to F. M. FOOTE.

Lockport, N. Y.—Bids will be received by the Board of County Supervisors until Jan. 23, for constructing Lewiston Rd. or Chestnut Ridge County Rd. No. 14 in Royalton Township and for the Quaker Rd., or County Rd. No. 15 in Hartland and Somerset Townships.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received by L. H. Pounds, Pres. of the Borough of Brooklyn, until 11 a.m., Jan. 27, for improving Front St., from Adams to Bridge St., Hicks St., from Warren to Harrison St., Hudson Ave., from Nassau St. to Dekalb Ave., and 95th St., from Ridge Blvd. to Third Ave.

✚Syracuse, N. Y.—The contract for paving North Crouse Ave. from Burnet Ave. and Lodi St. has been awarded to GUY B. DICKISON at $5536.

Crosswicks, N. J.—(Official)—Bids were received Jan. 16, for constructing the Chesterfield-Jacobstown Rd. with macadam and a bituminous dressing as follows: Thomas J. Barrett, Roebling, N. J., $25, 725; J. F. Shanley Co., Philadelphia, Penn., $33,610; Paul J. Snyder Co., Philadelphia, Penn., $24,679; B. Frank Stratton, Trenton, N. J., $27,974; R. Hafeman, Freehold, N. J., $23,861; Kelley-McFeeley Co., Camden, N. J., $29,950; The Juniata Co., Philadelphia, Penn., $29,920; Charles A Ried Co., Trenton, N. J., $27,278; Joseph Jingola, Trenton, N. J. $23,365; J. L. Le Compt, Lakewood, N. J., $23,890. Noted under Chesterfield, Jan. 14.

Jersey City, N. J.—According to press reports bids will soon be received by the City Commission for improving Pollock Ave. from West Side to Mallory Ave., Sheffield St. from Ocean to Rutgers Ave. and Brown Pl.

New Brunswick, N. J.—The Board of Freeholders will receive bids until 2:30 p.m., Jan. 25, for the construction of a concrete pavement on the Roosevelt-Woodbridge Rd., Section 3, from Vernon Way to Woodbridge Ave. Alvin B. Fox, Perth Amboy, is County Engr. Noted Dec. 10.

Greensburg, Penn.—Bonds to the amount of $250,000 have been sold, the proceeds of which will be used for building roads throughout Westmoreland County.

✚Richmond, Va.—The contract for completing extension of Grace St. has been awarded to H. H. GEORGE, at approximately $20,000.

Clearwater, Fla.—Press reports state the City Council contemplates an expenditure of $40,000 for street paving. A bond issue of $15,000 for street paving was voted Oct. 6. J. N. Drew is City Engr. Noted Sept. 3.

Eustis, Fla.—Press reports state that an election will be held Feb. 2 to vote on the question of issuing $35,000 in bonds for paving and constructing storm sewers. I. N. Kennedy is Mayor.

✚Fort Pierce, Fla.—A contract for completing the road south from Fort Pierce has been awarded by the Commissioners of St. Lucie County to J. G. COATS & CO., Fort Pierce, at $14,000.

Tallahassee, Fla.—Press reports state that A. H. Williams, City Clk., will receive bids until Feb. 1, for the sale of $34,000 in bonds for grading, curbing and paving.

✚Titusville, Fla.—The contract for constructing roads has been awarded to BENJAMIN AKERMAN, Titusville, at $5133.

Magnolia, Miss.—Bonds for $100,000 have been sold by the Commissioners of Pike County, the proceeds of which will be used for constructing roads.

✚Alexandria, La.—The contract for resurfacing Third St. from Elliott to Bellier St. has been awarded to GAILEY & CLARK. Noted Dec. 31.

✚Chattanooga, Tenn.—The contract for improving Main St. in North Chattanooga has been awarded to the NOLL CONSTRUCTION CO., at $12,513.

Louisville, Ky.—Bids will be received by the Louisville Bd. of Pub. Wks. until Jan. 27, for the reconstruction of Market St. from Jackson to Hancock St., and Lytle St., from 15th St. east, with vitrified block. The estimated cost is $5500.

Akron, Ohio—Bids will be received by James McCausland, City Audr., until noon, Feb. 8, for the sale of $105,325 in bonds for street improvements.

Ashtabula, Ohio—Press reports state that bids will be received by M. H. Turner, Dir. Pub. Ser. for paving South Ridge Rd., estimated to cost $44,870.

Bellaire, Ohio—Bids will be received by R. S. Crow, City Audr. until Jan. 25 for the sale of $30,627 in bonds for paving, curbing and otherwise improving North Jefferson St.

★Cambridge, Ohio—(Official)—See item under "Sewers."

✚Cincinnati, Ohio—(Official)—The contract for improving Niles Ave. from Delta to Halpin Ave. with brick has been awarded to WAGNER & BREHNING, Cincinnati, at $4340. Noted Dec. 24.

Cincinnati, Ohio—(Official)—Bids will be received by William Leimann, City Audr. until noon, Feb. 11 for the sale of $280,000 bonds for improving streets and roads.

Hamilton, Ohio—Press reports state that the City Council contemplates paving North Second, North Eighth, North Ninth, Washington, Buckeye, South Sixth and South Seventh St.

Lima, Ohio—Bids will be received by the County Commissioners until Jan. 30, for improving North West St. from Murphy St. to Robb Ave. H. J. Lawlor is County Audr.

Mt. Gilead, Ohio—(Official)—Bids will be received by the Commissioners of Morrow County until 11 a.m., Jan. 29, for the construction of the Mozier-Gruber Rd. in Canaan Township. C. O. Higgins is County Audr.

Paulding, Ohio—(Official)—Bids will be received by Edward McGaharan, County Audr. until 1 p.m., Feb. 24 for constructing 37,146 lin.ft. of earth road.

Port Huron, Ohio—Bids will be received by Albert P. Ryan, Clk. of the Bd. of Rd. Comrs., until Feb. 11 for building 3½ miles of class E. macadam road.

Springfield, Ohio—Press reports state that plans are being prepared by M. J. Bahin, City Engr. for the improvement of a number of streets.

✚Troy, Ohio—The Board of Control has awarded the contract for paving South Walnut St., to HENNESSY BROS., Piqua at $9500.

Troy, Ohio—Bids will be received by Henry J. Beck, Dir. Pub. Ser. until Jan. 27 for paving Market St.

Indiana—(Official)—Bids will be received as follows for road construction in Indiana:

Wabash, until 1:30 p.m., Feb. 2, by the Commissioners of Wabash County, for constructing a macadam road in Liberty Township. D. Showalter is Audr.

Vincennes, until 2 p.m., Feb. 2, by the Commissioners of Knox County, for constructing four gravel roads. Joseph I. Muentzer is Audr.

Muncie, until 10 a.m., Feb. 3, by the Commissioners of Delaware County, for constructing gravel roads in Delaware, Washington and Union Townships. F. M. Williams is Audr.

Shelbyville, until 11 a.m., Feb. 3, by the Commissioners of Shelby County, for constructing a road in Noble Township. F. W. Fagel is Audr.

Muncie, until 10 a.m., Feb. 3, by the Commissioners of Delaware County, for constructing three gravel roads in Harrison Township. F. M. Williams is Audr.

Evansville, until 10 a.m., Feb. 4, by the Commissioners of Vanderburg County, for constructing a rock road in Center Township. C. P. Beard is Audr.

Bloomington, Ind.—(Official)—Bids will be received by the Commissioners of Greene County until 2 p.m., Feb. 9, for the construction of a macadamized road in Washington Township. G. E. Kidd is Audr.

+Columbus, Ind.—A contract for constructing a county line road has been awarded by the Commissioners of Bartholomew and Decatur Counties to G. T. NUGENT, Hartsville, Ind., at $6940.

Indianapolis, Ind.—(Official)—Bids will be received by the Board of Public Works until 10 a.m., Jan. 25, for 500,000 gal. of road oil.

+Plymouth, Ind.—(Official)—A contract for constructing 11 gravel roads has been awarded by the Commissioners of Marshall County to H. N. BARNES & CO., at $86,762.

+Spencer, Ind.—A contract for constructing a limestone road in Franklin Township has been awarded by the Commissioners of Owen County to HICKMAN & McBRIDE, Freedom, Ind., at $12,673.

Detroit, Mich.—The Park Commissioners have estimated the cost of resurfacing 7½ miles of boulevard at $350,000.

+Escanaba, Mich. — A contract for grading, ditching and macadamizing the Manistique trunk road has been awarded to BICHLER BROS., Gladstone, Mich.

Pontiac, Mich.—(Official)—Bids will be received by the Board of County Road Commissioners until 10 a.m., Jan. 23, for building 4¾ miles of concrete road on Woodward Ave. from Royal Oak and Birmingham Villages.

+Paris, Ill.—The contract for paving East Union St. from Main to Buena Vista St. has been awarded to ALAN J. PARRISH, at $7901.

+Kenosha, Wis.—The C. PETERSON CONSTRUCTION CO. has been awarded a contract for paving Ridge St. at $20,000. Noted Dec. 24.

Clarinda, Iowa—Press reports state bids will be received by T. A. Wilson, City Clk. until Mar. 15 for paving Chestnut, Grant and Water St. M. G. Hall, Centerville, Iowa is Engr.

+Manning, Iowa—A contract for 25,785 sq.yd. of paving and 9521 lin.ft. of curbing has been awarded to C. L. MOSHER, Sioux City, Iowa, at $58,623.

Marshalltown, Iowa—Press reports state that bids will be received by J. J. Wilson, City Clk., until Feb. 15, for paving a number of streets.

+Independence, Mo.—A contract for grading and draining six miles of the Blue Mills and Sibley Rd. has been awarded to the DAVIDSON CONSTRUCTION CO., at $13,987.

St. Louis, Mo.—Frank W. Buffum, State Highway Comr., has employed an engineer in St. Louis to establish lines and right-of-way for the proposed eastern branch of the Red Ball improved roadway to be constructed between St. Charles and Clarksville.

+Fort Worth, Tex.—A contract for constructing 100,000 sq.yd. of asphaltic concrete pavement has been awarded to the ROACH & MANIGAN CO., Memphis, Tenn., at $235,000.

Greenville, Tex.—Bids will be received by the Board of Permanent Road Commissioners until Jan. 27, for the construction of a system of highways in Road District No. 1. Julian C. Field, Greenville is Consulting Engr.

Sutherland Springs, Tex.—Press reports state that, at a recent election, the citizens voted to issue bonds for road construction.

Mountain Home, Idaho—The County Commissioners contemplate building a six-mile road from Mountain Home to Bruneau, estimated to cost $15,000.

Morton, Wash.—Press reports state that plans are being prepared for the improvement of Main St. from Railroad to Third St.

Olympia, Wash.—Press reports state that plans are being prepared by W. H. Yeager, County Engr. for the completion of the Stanke Rd.

+Seattle, Wash.—The City Council has awarded a contract for highway construction to W. W. WILCOX, Sunnydale, Wash., at $30,866.

Seattle, Wash.—Bids will be received by A. P. Denton, County Engr., until Feb. 10, for grading 20 miles of road from Auburn to Enumclaw, estimated cost $8000 and ten miles of road from Renton and Issaquah, estimated cost $70,000.

+Fresno, Calif.—The CALIFORNIA ROAD & STREET IMPROVEMENT CO. has been awarded the contract at approximately $40,000 for paving K St.

+Longbeach, Calif.—The LOS ANGELES PAVING CO., 406 H. W. Hellman Bldg., Los Angeles, has been awarded the contract at $35,914 for improving American Ave. from Sixth to Anaheim St.

Sacramento, Calif.—(Official)—Bids will be received until 2 p.m., Feb. 1, by the State Highway Commission, 515 Forum Bldg., for the construction of a state highway in Butte County, from Nelson to Chico, about 12.6 miles long.

San Francisco, Calif.—The Board of Public Works will soon receive bids for paving Corbett Ave., from Danvers St. to Caselli Ave., the estimated cost of which is $19,000; and grading Pennsylvania Ave., from 20th to 22nd St., the cost of which is estimated at $22,000.

+Maisonneuve, Que.—The contract for grading and paving Pius IX Blvd. has been awarded to the FEDERAL ENGINEERING & CONTRACTING CO., Montreal at $96,000. Noted Dec. 17.

INDUSTRIAL WORKS

Boston, Mass.—Arthur A. Vinol, Arch., has prepared plans for the construction of a four-story, 90x112-ft. garage on West Dedham St., for the Tremont Realty Corporation. The estimated cost is $80,000.

Buffalo, N. Y.—The Eastern Grain, Mill & Elevator Corporation recently incorporated with a capital of $1,000,000 will construct a grain elevator along the Buffalo River. The plant will have a capacity of 1,000,000 bu.

New York, N. Y.—(Borough of Bronx)—Plans have been prepared by Edward J. Byrne, Arch., 3029 Third Ave. for the construction of a one-story, brick and stone garage on Southern Blvd. near East 163rd St. Estimated cost, $30,000.

New York, N. Y.—(Borough of Bronx)—Paul C. Hunter, Arch., 191 Ninth Ave., New York, is preparing plans for alterations and additions to the four-story garage on Washington near Tremont Ave., for the Tremont Garage Co. Estimated cost, $12,000.

New York, N. Y.—(Borough of Brooklyn)—The Knickerbocker Ice Co., 1480 Broadway will construct a three-story, 74x160-ft., storage and stable at Bond and Fourth St. Estimated cost, $50,000. Mortenson & Co., 405 Lexington Ave., New York, are Archs.

New York, N. Y.—(Borough of Brooklyn)—L. Schepp, Hudson and Duane St., New York, contemplates the construction of a 100x136-ft., factory at 191-205 Washington and Concord St., Brooklyn.

+New York, N. Y.—(Borough of Queens)—The contract for the construction of a one-story, 70x100-ft. garage, on Hillside Ave., Jamaica, L. I., for D. Koster, Huron St., has been awarded to H. WOOD, 258 Halsey St., Brooklyn. Estimated cost, $10,000.

New York, N. Y.—(Borough of Richmond)—The Mexican Petroleum Co., has had tentative plans prepared for the construction of a concrete oil plant at Mariners Harbor, S. I. The estimated cost is $1,500,000. Frederick R. Kellogg is interested. Construction will be started about June 1.

Athenia, N. J.—Bids will be received about Feb. 1, by the Magor Car Co., for the construction of a one-story corrugated iron and steel addition. The estimated cost is $20,000. Barclay & Klapp, 60 Wall St., New York, N. Y., have prepared plans.

+Newark, N. J.—The contract for the construction of a one-story factory on South 11th St., for the American Piston Ring Co., 378 Jelliff Ave., has been awarded to the ESSEX CONSTRUCTION CO., 87 Academy St. Estimated cost, $11,000.

Pittsburgh, Penn.—Plans are being prepared by Janssen & Abbott, Fifth Ave., for the construction of an eight-story, 40x110-ft. laundry and warehouse on Liberty Ave. for the Fort Pitt Hotel Co. Estimated cost $100,000. Noted Sept. 3.

+Baltimore, Md.—(Correction)—The contract for the construction of a nine-story, 33x76-ft. factory for the Townsend Grace Co., has been awarded to MORROW BROS. Estimated cost, $80,000. Noted Sept. 17 and Jan. 7.

Charleston, S. C.—The General Asbestos & Rubber Co., plans to construct a $200,000, plant in North Charleston.

Louisville, Ky.—Bids will be received after Feb. 1, by Albert Kahn, Arch., Trussed Concrete Bldg., Detroit, Mich., for the construction of a six-story, reinforced-concrete assembling plant for the Ford Motor Co., Detroit, Mich. Noted Jan. 7.

Cleveland, Ohio—(Official)—Construction be started about April 1 on the 12-story, 196x495-ft., terminal warehouse at West Ninth St. for the Ninth St. Terminal Warehouse Co. The estimated cost is $2,000,000. Uoted Dec. 10.

+Cleveland, Ohio—The contract for the construction of a one-story, 35x135-ft. addition on Perkins Ave. for the Metals Welding Co., 4400 Perkins Ave. has been awarded to PAUL BROS. CO., Citizens Bldg. Noted Jan. 7.

Steubenville, Ohio—Armour & Co., will construct an addition to its plant on Adams St. Estimated cost, $55,000.

+Detroit, Mich.—The general contract for the construction of a two-story and basement, 35x187-ft. storage building on Glennan Ave., for the Independent Brewing Co., has been awarded to JOHN BEYSTER, JR., 560 Baker St. Estimated cost $10,000.

Detroit, Mich.—The Remy Electric Co. 1005 Woodward St. plans to construct a plant to cost about $1,000,000.

Manitowoc, Wis.—The Atlas Engineering Co., Milwaukee plans to construct a factory and machine shop, to cost about $25,000. Earl F. Miller, Dempsey Bldg., Milwaukee is Arch.

Milwaukee, Wis.—The National Supply Co., is having plans prepared for the construction of a two-story, 65x150-ft. warehouse, on Reed St.

Plymouth, Wis.—The C. F. Kade Fixture & Showcase Co. has increased its capital from $30,000 to $75,000 for the construction of a two-story, 60x180-ft. woodworking shop, two dry kilns and a storage house. Construction will be started in the spring.

+West Allis, Wis.—Contracts for the construction of a factory and machine shop at 51st Ave. and Mitchell St. for the Davis Mfg. Co., 15th Ave. and Park St., have been awarded as follows: General contract, KLUG & SMITH, Mack Blk., Milwaukee; steel and iron, WORDEN-ALLEN CO., Milwaukee; carpentry, MADSEN CHRISTENSEN & INGBRETSON, Milwaukee. Estimated cost, $125,000. Noted under Milwaukee, Wis., May 14 and Jan. 14.

Des Moines, Iowa—Bids are being received by R. G. McDowell, Arch., Good Blk. for the construction of a three-story, 40x134-ft. warehouse on 16th St. and Grand Ave. for Elner Turner, 418 East 16th St. Estimated cost, $20,000.

Des Moines, Iowa—Plans are being prepared by Norman T. Vorse, Arch., 911 S. & L. Bldg., for the construction of a one-story addition to the Campbell Bread Co. Estimated cost, $25,000.

+Waterloo, Iowa—The contract for the construction of a concrete factory for the United Glove Co., has been awarded to O. W. ARMAGOST, at $10,816. J. F. Manning, Waterloo is interested.

Duluth, Minn.—The Duluth Crushed Stone Co., plans the construction of a two-story addition. The estimated cost is $15,000.

+Minneapolis, Minn.—The Pillsbury Flour Mills Co., has awarded the contract to H. N. LEIGHTON CO., 127 South Tenth St., for the construction of a two-story and basement 102x115-ft. machine shop at Third Ave. S. E. and Second St. Estimated cost, $40,000.

+Joplin, Mo.—The contract for the construction of a one- and two-story, 100x120-ft. bakery on 18th and Main St., for the Junge Baking Co. has been awarded to LAIN & HOFFMAN. The estimated cost is $50,000.

+St. Louis, Mo.—The contract for the construction of a three-story and basement, 78x100-ft. warehouse on Morgan and Tenth St., for C. J. & F. E. Briner, Elec. Engrs., 204-208 Franklin St., has been awarded to the M. EYSSELL CONSTRUCTION CO., 816 Olive St. Estimated cost, $25,000.

+St. Louis, Mo.—The contract for the construction of the two-story, 80x152-ft. warehouse and stable at 12th and Spruce St., for the Columbia Transfer Co., has been awarded to CHARLES V. McCORMICK & SON. Estimated cost $80,000. Noted Oct. 22.

Brownsville, Tex.—The Brownsville Chamber of Commerce has received a proposition from H. S. Dew, Dewalt, for the incorporation of a company with a capital of $100,000. The company will construct a packing plant.

Galveston, Tex.—The Galveston Ice & Cold Storage Co., will construct a three-story, brick addition to its plant. Estimated cost, $50,000. G. H. Sapper is Mgr.

Seattle, Wash.—Bids will be received until Jan. 28 by the Commissioners of the Port of Seattle, Capitol Bldg., for the construction of the seven-story, reinforced concrete cold storage warehouse, at the East Waterway Turning Basin. The estimated cost is $150,000. J. R. West is Engr. Noted Oct. 15 and 29, Nov. 5 and Dec. 31.

Walla Walla, Wash.—The Brown-Lewis Corporation is preparing to construct a factory. The capital of the company is $100,000. Fred G. Lewis, J. T. Brown and A. B. Fox are Trustees.

Wenatchee, Wash.—Plans are being prepared by William Turner for the construction of a reinforced concrete warehouse and cold storage plant. The estimated cost is $400,000.

Berkeley, Calif.—George W. Rodehaver, 2411 Regal Rd., will construct a one-story, commercial garage to cost, $10,000. Woollett & Woollett, Newhall Bldg., San Francisco, are Archs.

Sacramento, Calif.—Plans have been prepared by E. C. Hemmings, Arch., for the construction of a four-story creamery and salesroom on K near 15th St. Estimated cost, $50,000.

San Bernardino, Calif.—The Consumers Ice & Cold Storage Co., has purchased a site, at D near Third St. for the construction of an ice and cold-storage plant. Estimated cost, $70,000.

San Francisco, Calif. — (Official) — Construction will be started about May 1 on the plant for the Western Sugar Refining Co., at Humboldt and Louisiana St. Plans have been prepared for two buildings, an 11-story and basement, 98x144 ft. structure and a one-story, 58x161-ft. machine shop. Estimated cost $300,000. W. E. Murray is Ch. Engr. Noted Dec. 31.

San Francisco, Calif.—L. J. Devlin, Arch., is preparing plans for the construction of a three-story and basement warehouse on Seventh St., for Dunham, Carrigan & Hayden. Estimated cost, $40,000.

FEDERAL GOVERNMENT WORK

Storehouse—Fort Williams, Maine—(Cape Cottage post office—The following bids were received for constructing the storehouse at Fort Williams; John J. Fitzpatrick & Son, Plattsburg, N. Y. (a) concrete, $5214; (b) brick, $4777; F. A. Rumery Co., Portland, Maine, (a) $4763; (b) $4563; John W. Burrowes Co., Portland, (a) $3580; (b) $4240; Forgionne & Romano, Portland, (a) $3422; (b) $3640; Sanders Contracting Co., Portland, (a) $4667; (b) $4667; F. W. Cunningham & Sons, Portland, (a) $3579; (b) $3914; Blackstone & Smith, Portland, (a) $3190; (b) $3514. Noted Dec. 17.

★Dredging—Boston, Mass.—Bids will be received until 10 a.m., Feb. 18, by Lieut. Col. W. E. Craighill. U. S. Engineer office, Boston, for dredging in Chelsea Creek, Boston.

Locomotive Crane—Boston, Mass.—The following are the bids received for furnishing one 15-ton locomotive crane to the Navy Yard, Boston: Link-Belt Co., Chicago, Ill., (a) $6315; (b) $6000; (c) $135. Orton & Steinbrenner Co., Chicago, (a) $6229; (b) $6119; (c) $4665. Ohio Locomotive Co., New York, N. Y. (a) $7500; (b) $5600; (c) $6800. Industrial Works, Bay City, Mich., (b) $6300; (c) $5350. McMyler Co., Bedford, Ohio, (b) $5996. Brown Hoisting Machinery Co., New York, (a) $6500; (c) $5200. Browning Engineering Co., Cleveland, Ohio, (b) $5980; (c) $5210. American Hoist & Derrick Co., St. Paul, Minn., (b) $5462; (c) $5162. Noted Dec. 24.

+Repairs to Post Office—Providence, R. I.—The contract for making repairs to the post office at Providence, has been awarded to the HOPE BUILDING CO., Providence, at $5097. Noted Jan. 7.

★Repairs to Breakwater—Stonington, Conn.—The following are the bids received for repairing breakwater in Stonington Harbor: E. S. Belden & Sons, 217 Laurel St., Hartford, Conn., $4850; Coast & Lakes Contracting Corporation, 41 Broad St., New York, N. Y., $6700; T. A. Scott Co., Inc., New London, Conn., $5625; Olsen & Klavenes, 336 61st St., Brooklyn, N. Y., $6750; Estate of John Beattie, Leete Island, Conn., $5800; C. R. Simpson, 170 Broadway, New York, N. Y., $11,100. Noted Dec. 3.

Repairing Vessel—Baltimore, Md.—The following are the bids received by the Lighthouse Inspector for repairing Light Vessel No. 52. Old Dominion Marine Railway Corporation, Norfolk, Va., $4617. Skinner Shipbuilding & Dry Dock Co., Baltimore, Md., $5578. Spedden Shipbuilding Co., Baltimore, Md., $5598. Smith & McCoy, Norfolk, Va., $6478. Warwick Machine Co., Newport News, Va., $6915. W. S. Cahill Co., Baltimore, Md., $7029. Noted Dec. 12.

Skylights—Washington, D. C.—The following are the bids received for installing skylights on the Patent Office Bldg.: J. S. Thorn & Co., Philadelphia, Penn., $20,377; Wheeling Metal Mfg. Co., Wheeling, W. Va., $18,815; Classon Architectural Metal Co., Providence, R. I., $19,177; National Ventilating Co., New York, N. Y., $19,690; Superior Cornice & Skylight Mfg. Co., New York, $35,000; Rex-Lite Co., Inc., New York, N. Y., $16,850; H. L. Giclas, Washington, D. C., $18,970; Davis Construction Co., Washington, D. C., $23,411; W. A. Finglas, Baltimore, Md., $26,687; Arthur E. Rendale, New York, N. Y., $18,000; John Bird, Philadelphia, Penn., $18,696; National Skylight Ventilator Co., Rochester, N. Y., $19,760; H. H. Peterson Co., New York, N. Y., $25,797; Vaile & Young, Baltimore, M $17,321; J. D. Thompson Co., Washington, D. C., $22,994; W M. Whyte, Washington, D. C., $23,844; David Lipton's Sons Co., Philadelphia, Penn., $24,793; L. A. Storch & Co., New Yor N. Y., $20,400; Lewis Van Dorp, Topeka, Kan., $25,624. Not Dec. 17.

★Bridge Span—Washington, D. C.—Bids will be receiv by Lieut. Col. H. C. Newcomer, Southern Bldg., Washingto D. C., until Feb. 17, for the substitution of through span f deck span in the Pennsylvania Ave. Bridge.

★Reconstructing Wharves—Washington, D. C.—Bids wi be received at the office of the Secretary of the Board Commissioners, Room 509, District Bldg., until 2 o'clock p.m Feb. 11, for reconstructing wharves at municipal fish whar and market, on Water St., S. W., between 11th and 12th S Further information may be obtained from the Chief Clerk, Engineer Dept., Room 427, District Bldg., Washington, D. C

Post Office—Kinston, N. C.—Bids were received as follows, for the construction of a post office at Kinston, (a) limestone, (b) sandstone: J. S. Rogers Co., Moorestown, N. J., (a) $61,580; (b) $63,900. William H. Fissell & Co., 1133 Broadway, New York, N. Y., (a) $57,700; (b) $59,700. J. L. Crouse, Greensboro, N. C., (a) $54,887; (b) $56,900. Blalock Bros., Kinston, N. C., (a) $66,800. George A. Clayton, Gould Bldg., Atlanta, Ga., (a) $62,449. Barnes Bros., Logansport, Ind., (a) $65,000. W. J. Brent Construction Co., Norfolk, Va., (a) $65,825; (b) $67,325. Longest & Tessier Co., Greensboro, N. C., (a) $64,000; (b) $64,800. Lewis P. Fluhrer Co., 220 West 42nd St., New York, (a) $56,633. Colonial Construction & Supply Co., Charlottesville, Va., (a) $58,885. Westchester Engineering Co., White Plains, N. Y., (a) $51,900; (b) $56,000. Torbert Construction Co., Hampton, Va., (a) $56,349; (b) $60,349. George W. Stiles Construction Co., Rookery Bldg., Chicago, Ill., (a) $56,500. W. M. Sutherland Building & Construction Co., St. Louis, Mo., (a) $55,949. Noted Dec. 10.

+Post Office—Canton, Miss.—The contract for constructing the post office at Canton has been awarded to ALGERNON BLAIR, Montgomery, Ala., at $39,475. Noted Nov. 12 and Dec. 31.

Post Office—Alliance, Ohio—Bids will be received by Oscar Wenderoth, Superv. Arch., Washington, D. C., until 3 p.m., Mar. 1, for constructing a post office at Alliance.

Post Office—Gary, Ind.—Bids were received for the construction of a post office at Gary, (a) limestone; (b) sandstone; (c) marble: Charles McCaul Co., Philadelphia, Penn., (a) $95,790; (b) $103,790; (c) $120,790; R. S. Moore, Lafayette, Ind., (a) $98,800; (b) $104,800; (c) $123,900; George W. Stiles Construction Co., Chicago, Ill., (a) $99,300; (b) $110,400; (c) $125,900; Conners Bros. Co., Lowell, Mass., (a) $99,750; (b) $108,755; (c) $122,755; George Baker Long, Worcester, Mass., (a) $99,850; (b) $109,150; (c) $123,650; J. L. Crouse, Greensboro, N. C., (a) $100,615; (b) $106,115; (c) $130,556; Westchester Engineering Co., White Plains, N. Y., (a) $101,313; (b) $112,000; (c) $125,400; John K. Unkefer & Co., Minerva, Ohio, (a) $101,752; (c) $126,852; J. H. Wiese, South Omaha, Neb., (a) $102,290; Charles W. Gindele Co., Chicago, Ill., (a) $102,500; (b) $111,000; James Devault & Co., Canton, Ohio, (a) $102,903; (b) $108,403; (c) $124,600; W. H. Fissell & Co., New York, (a) $103,000; (b) $114,362; (c) $125,000; Bedford Stone & Construction Co., Indianapolis, Ind., (a) $104,990; (b) $108,000; (c) $125,000; M. Yeager & Sons, Danville, Ill., (a) $16,363; (b) $114,363; (c) $126,363; Hiram Lloyd Building & Construction Co., St. Louis, Mo., (a) $107,848; (c) $129,998; Christ Kanzler & Son, Evansville, Ind., (a) $113,333; (b) $115,900; William Everly, Indianapolis, Ind., (a) $116,887; (b) $121,387; (c) $154,000; Dieter & Wenzel Construction Co., Wichita, Kan., (a) $116,905; (b) $124,000; (c) $146,900; Thomas W. Cissel, Wooster, Ohio, (a) $118,000; (b) $125,000; (c) $141,000; Ingauld Moe, Gary, Ind., (a) $119,674; Clarke Construction Co., Danville, Ill.; (a) $124,950; (b) $138,300; (c) $152,000.

+Post Office—Ishpeming, Mich.—The contract for the construction of a post office at Ishpeming has been awarded to JAMES DEVAULT, Canton, Ohio, at $56,608. Noted Dec. 31.

Building—Fort Leavenworth, Kan.—The following are the bids received Jan. 1, by Capt. H. E. Comstock, Constructing Quartermaster: John Barnes, Leavenworth, Kan., $46,763; R. B. Yoakum, Leavenworth, $44,000; Kelley & Baehl, Leavenworth, $44,693; Aiken & Thayer, Kansas City, Mo., $46,591; Fogel Construction Co., Kansas City, $45,987; Kansas City Construction Co., Kansas City, $47,500; Jones Bros., Leavenworth, $48,872; Nicholas Miller, Kansas City, Mo., $54,680; John E. Anderson & Son, Kansas City, Mo., $50,681; J. W. Wright, Leavenworth, $48,980. Noted Dec. 24.

Fence—Sully's Hill National Park (Devil's Lake post office), N. D.—Bids will be received by Carl Vrooman, Acting Secy. of State, Washington, D. C., until 2 p.m., Feb. 2, for constructing an inclosure around Sully's Hill National Park.

Earthwork—Elsberry, Mo.—Bids will be received by the Mississippi River Commission, 1311 International Life Bldg., St. Louis, Mo., until 11 a.m., Feb. 8, for constructing about 100,000 cu.yd. of earthwork in the Elsberry drainage district.

Roof Work—Denver, Colo.—The following bids were received for roof work on the post office and court house; Lewis Van Drop, Topeka, Kan., $7040; Norman Ker Co., New York, N. Y., $13,161. Noted Jan. 7.

Buildings, Etc.—Fort Huachua, Ariz.—The following are the bids for constructing and remodeling various buildings, (a) with asbestos roof, (b) with wood shingles: Stanley Bevan, El Paso, Tex., (a) $247,534, (b) $241,948; Mayfield & Shaw, Fort Bliss, Tex., (a) $193,027, (b) $189,919; Los Angeles Planing Mill Co., Los Angeles, Calif., (a) $218,000, (b) $213,777; Thomas O'Neil, Denver, Colo., (a) $207,000, (b) $205,350; W. W. Atkinson, Los Angeles, Calif., (a) $207,245, (b) $303,665; J. T. Dalton & Son, Junction City, Kan., (a) $197,250, (b) $194,397; Arizona Engineering & Construction Co., Mesa, Ariz., (a) $197,900, (b) $196,000; J. M. Sparks, Douglas, Ariz., (a) $156,206, (b) $153,261; Edward O. Hamilton, Omaha, Neb., (a) $253,000, (b) $249,500; V. E. Ware, El Paso, Tex., (a) $221,807, (b) $219,840; Albrecht-Anderson Construction Co., Phoenix, Ariz., (a) $214,436, (b) $212,436; Ziegler Bros., Junction City, Kan., (a) $194,385, (b) $191,934; Phoenix-El Paso Building Co., El Paso, Tex., (a) $213,670, (b) $211,286; W. E. Kier Construction Co., San Diego, Calif., (a) $215,835, (b) $213,810; W.

O. Morrison, Denver, Colo., (a) $194,784, (b) $192,864; R. W. Roller, San Francisco, Calif., (a) $222,333, (b) $220,287; W. H. Jones, Phoenix, Ariz., (a) $240,800, (b) $235,200; Winget Construction Co., Los Angeles, Calif., (a) $193,429, (b) $188,235. Noted Nov. 26.

+Bridge—Tuba, Ariz.—The contract for the construction of the substructure of the steel highway bridge over the Moencopi has been awarded to the PUEBLO BRIDGE CO., Pueblo, Colo., at $3061, and the contract for the superstructure to the JOLIET BRIDGE & IRON CO., Joliet, Ill., at $2680. Noted Dec. 3.

Buildings—Bremerton, Wash.—Bids were received as follows, Jan. 16, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of three one-story ward pavilion buildings, each 23x71 ft., each with two wings 9x15 ft. each, for the Navy Yard, Puget Sound, Wash.: Fleines & Dahl, $14,756; Carlson & Co., $13,348; L. Lent, Bremerton, Wash., $13,227; Harry H. Cotton, Port Angeles, Wash., $16,643; Hansen & Co., $15,900; Gutleben Bros., San Francisco, Calif., $14,980; Calling & Hoberg, $12,382; William Wills, $14,543; Zatley Matthese, $12,996; J. L. Murphy & Co., Tacoma, Wash., $13,824; N. T. Barnes, Kent, Wash., $12,772; Charles H. Scharr, $13,450; Eckman & Mowat, $12,725; Lowmark & Heydal, Tacoma, Wash., $12,657; Balch & Arnold, $12,859; M. A. Benbennich, Bremerton, Wash., $14,394; Bert Ward, $11,363; B. T. Erikson, $12,483. Bidders, not specified, are of Seattle.

+Post Office—Medford, Ore.—The contract for the construction of a post office at Medford has been awarded to SOUND CONSTRUCTION & ENGINEERING CO., Seattle, Wash., at $96,123. Noted Aug. 13 and Sept. 3.

Post Office—Pendleton, Ore.—It is reported that plans have been completed for the proposed $122,000 post office, and bids will be called for soon.

MISCELLANEOUS

Fire Station—Hopedale, Mass.—Bids will be received at once for the construction of a fire station on Dutcher St. It will be two stories, 63x65 ft. Robert A. Cook, Milford, Mass., is Arch.

Stone Crushers, Engines and Cranes—Hartford, Conn.—(Official)—The Suffield-Berlin Trap Rock Co., 18 Asylum St., writes that it is about to place orders for stone crushers, engines, boilers, screens, locomotive cranes, pumps, drills and cars; these will be used at the plant which is being established at Suffield. All orders will be placed from the Hartford office. L. J. Coburn is Pres.

Riprap—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until noon, Jan. 26, by R. A. C. Smith, Comr., Docks, Battery Pl., for furnishing the labor and materials necessary for delivering and placing about 50,000 cu.yd. of riprap.

Dredging—New York, N. Y.—(Borough of Manhattan, Brooklyn, Queens, the Bronx and Richmond)—The following bids were received Jan. 18, by the Commissioner of Docks, for dredging (a) 250,000 cu.yd. in the North River; and (b) 80,000 cu.yd. in the East and Harlem Rivers: R. G. Packard Co., (a) 15.8c. per cu.yd., (b) 25.8c.; Henry Du Bois Sons Co., (a) 13.9c.; P. Sanford Ross Co., (a) 15.8c., (b) 28.4c.; Coastwise Dredging Co., (b) 22.45c.; William Beard, (a) 14.7c., (b) 18.7c.; Morris & Cummings, (a) 11.83c. Noted Jan. 14.

+Filling—New York, N. Y.—(Borough of Manhattan)—(Official)—The department of Parks has awarded the contract for filling the swamp land at the southwestern section of Van Cortlandt Park to the VAN CORTLANDT CONTRACTING & IMPROVEMENT CO., INC., at $14,951. Noted Jan. 14.

Motor Fuel Wagons—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids for furnishing the fire department with four motor driven fuel wagons were received on Jan. 15 from: International Motor Co., West End Ave., New York, at $13,784, and the Croce Automobile Co., Asbury Park, N. J., at $11,392. Noted Jan. 7.

Stable and Section House—New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received by Maurice E. Connolly, Borough Pres., until 11 a.m., Jan. 29, for the construction of a stable and section house for the Bureau of Street Cleaning, at Flushing Ave., near Metropolitan Ave., Ridgewood. The amount of security required is $25,000.

Foundations and Seawall—Allenhurst, N. J.—Bids will be received until noon, Jan. 25, by Charles K. Savage, Borough Clk., for reinforced-concrete foundations for the Allenhurst Casino; also for a reinforced-concrete seawall.

Motor Fire Apparatus—Camden, N. J.—The Fire Committee of the City Council is planning to issue $100,000 in bonds for the motorization of the city fire department equipment.

Cement, Lime and Sand—Jersey City, N. J.—(Official)—Bids will be received until 2 p.m., Jan. 28, by the Board of Commissioners for furnishing portland cement, Westchester Lime, North River hard-burned brick and sand; from date of contract to Nov. 30, 1915.

Breakwater—Long Branch, N. J.—Surveys are being made for a breakwater at Long Branch, to cost about $400,000.

Market—Newark, N. J.—(Official)—Bids will be received until 2 p.m., Jan. 29, by the Committee on Public Buildings, Common Council, for the construction of the proposed Center St. market. Estimated cost, $700,000.

+Dredging—Passaic, N. J.—The contract for dredging in the Passaic River has been awarded to J. A. SEELEY, New York, at $30,000.

Elimination of Grade Crossings—Paterson, N. J.—The Public Utilities Commission, Trenton, N. J., has sustained the application of the city for the abolition of 15 grade crossings on the line of the Erie R.R. Co. through the city. The estimated cost is $2,587,000.

Breakwater—Baltimore, Md.—Plans and specifications have been submitted to the city, by Oscar F. Lackay, Harbor Engr., for the construction of a breakwater to protect the boat and swimming basin at Fort McHenry Park. The estimated cost is $35,000. Noted Nov. 26, Dec. 10 and 31.

+Wharf—Baltimore, Md.—The Prudential Oil Corporation, 17 Battery Pl., New York, has awarded a contract to ANDREW MILLER & CO., Baltimore, for the construction of a 400x800 timber and reinforced-concrete bulkhead wharf.

Pier—Port Covington, Md.—(Baltimore post office)—Plans and specifications are being prepared by the Engineering Department, Western Maryland R.R. Co., Hillen Station, Baltimore, for the construction of a reinforced-concrete pier, about 200 ft. long, on reinforced-concrete piles. The estimated cost is $500,000.

House Numbers—Charlotte, N C.—(Official)—Bids will be received until 3 p.m., Jan. 26, by the City Engineer, for furnishing f.o.b. cars at Charlotte, 10,000, porcelain on metal, house numbers. Specifications may be obtained from Samuel H. Lea, City Engr.

Pier—St. Petersburg, Fla.—Press reports state that the city plans to build a freight pier in Bayboro Basin. M. W. Spencer is City Engr.

Motor Boat Canals—Winter Haven, Fla.—The Twenty Lakes Boat Course Club has engaged Lawrence Manning, Atlantic Engineering Co., Savannah, Ga., to survey and prepare plans for the construction of a motor boat course. Three miles of 20-ft. canal, four ft. deep, will be necessary for the connection of a chain of lakes. The completed course will be about 100 miles in length.

Wharf—Decatur, Ala.—The City Council has authorized the purchase of land on the Tennesee River as a site for a wharf. James A. Nelson is Mayor.

Docks, Dredging and Warehouses—Mobile, Ala.—Press reports announce that the Turner Terminal Co., recently incorporated, has taken over the property of the Turner-Hartwell Docks Co. Bonds for $1,500,000 will be issued for the acquisition of additional property, the construction of warehouses, dredging the slips, building docks and maintenance of switching yard. Horace Turner is Pres.

Drainage—Crowley, La.—Acadia Parish Fifth Ward Drainage District No. 1 will vote, Feb. 2, on a bond issue of $50,000 for the construction of a gravity drainage system. Ellis Hoffpauir is Pres. Comrs.

Grandstand—New Orleans, La.—Press reports state that the New Orleans Baseball Club plans to erect steel grandstands and bleachers at the White City grounds, Carrolton and Tulane Ave.

Dredging—Ashland, Ohio—The Commissioners of Ashland and Wayne counties contemplate widening and deepening Muddy Fork and Jerome Fork, branches of the Mohican River. The estimated cost is $60,000.

Traveling Cranes—Cleveland, Ohio—Bids will be received until Jan. 28, by the Commissioner of Purchases and Supplies, Room 511, City Hall, for furnishing two traveling cranes for the Department of Public Utilities, Division of Water. Specifications may be obtained from Charles F. Schults, Comr., Water Dept., 113 Superior Ave.

Drainage District—Kenton, Ohio—(Official)—A petition has been filed with the Hardin County Court of Common Pleas, for the creation of a drainage district, to be known as the Upper Scioto River Conservancy District. This district will include about 200,000 acres of land in Hardin County; and will be formed under the provisions of the Ohio Conservancy Act. Willis E. Meyers, Kenton, is Ch. Engr.

+Stadium—Evansville, Ind.—The City School Board has awarded the contract for the construction of stadium at Garvin Park athletic field to the M. J. HOFFMAN CONSTRUCTION CO., Evansville, at $39,955. Noted Oct. 29, Jan. 7.

Drain—Newcastle, Ind.—(Official)—Bids will be reecived until Feb. 6, by Charles E. Byrket, Drainage Comr., Henry Sounty, for the construction of Drain No. 3202, of Fall Creek Drain. About 500,000 cu.yd. of excavation will be necessary. Plans and specifications may be obtained from the Clerk of the Henry Circuit Court, Newcastle.

Sewers—Milwaukee, Wis.—(Official)—Bids will soon be received for constructing about five miles of brick and concrete sewers. This is the first construction work to be undertaken by the Sewerage Commission for the collecting of sewage in the city. The whole work will embrace about 35 miles of intercepting sewers and with a disposal plant, will cost approximately $10,000,000. T. Chalkley Hatton, City Hall, is Ch. Engr. of Sewerage Comn.

Ditch—Stillwater, Minn.—(Official)—Bids will be received until Jan. 29, by N. A. Nelson, County Audr., for the construction of Judicial Ditch No. 4, for which bids were recently rejected. The work will include excavation and tiling. The estimated cost is $14,747.

Motor Fire Apparatus—Phœnix, Ariz.—Bids soon will be advertised for a Graham high-pressure motor fire pump to cost about $9000 and an aërial truck to cost $12,000.

Filling—Seattle, Wash.—The City Council has instructed A. H. Dimock, City Engr., to prepare plans for filling Alki Ave. from West Seattle Ferry Landing to Alki Point. The estimated cost is $210,000.

+Dock—Seattle, Wash.—The Grand Trunk Pacific Steamship Co., has awarded the contract for the construction of the superstructure of its dock at the foot of Marion St. to J. M. CLAPP, Burke Bldg., Seattle, at $75,000. Webster & Ford, Archs., Lyon Bldg., prepared the plans.

+Dredge—Seattle, Wash.—The American Tin Can Co., Portland, Ore., has awarded the contract to the AMERICAN DREDGE & CONSTRUCTION CO., Seattle, at $50,000, for the construction of a dredge for use in the Alaska tin fields.

Drainage—Snohomish, Wash.—The County Commissioners, Snohomish County, have had plans prepared for the construction of a drainage system and the installation of reinforced concrete floodgates between Snohomish and Monroe. The estimated cost is $50,000.

Jetty Work—Florence, Ore.—Press reports state that the Siuslaw Port Commission has authorized the sale of $100,000 in bonds issued last year. This amount will be used to build jetties south of the Siuslaw River.

+Drainage—Modesto, Calif.—The contract for the construction of the Curtis and Sproul canals has been awarded to E. K. FINNEY at $12,464.

Elimination of Grade Crossing—Roseville, Calif.—An undergrade crossing beneath the tracks of the Southern Pacific Co., near Roseville, will be constructed soon at an estimated cost of $11,000, the cost to be divided between the State Highway Commission and the railroad company.

Steel Furniture and Fixtures—Stockton, Calif.—Bids will be received until Jan. 28, by the Board of Supervisors, San Joaquin County, for furnishing steel furniture and fixtures for the auditor's office. E. D. Graham, Stockton, Calif. is Clk. of the Bd.

Grand Stand—London, Ont.—Plans will be prepared soon and bids received for the construction of a steel and reinforced concrete grand stand at the Western Fair Grounds. A. M. Hunt is Mgr., Western Fair Bd.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Boston, Mass.—P. G, Rice & Co., Old South Bldg., plans to construct a four-story brick apartment house on Commonwealth Ave., Brighton. Estimated cost $50,000.

+Boston, Mass.—The contract for the construction of a six-story, 60x150-ft. building on School St., for J. Murray Howe, 78 Devonshire St., has been awarded to the NATIONAL FIREPROOFING CO., 200 Devonshire St. C. Howard Walker, 71 Kilby St., is Arch. Noted Jan. 14.

Fall River, Mass.—Bids will soon be received for the construction of a four-story, 71x180-ft. police station. Estimated cost, $185,000. E. M. Corbett, 70 Bedford St., is Arch. Noted Dec. 3.

Springfield, Mass.—Plans have been prepared by Shattuck & Hussey, Chicago, Ill., for the construction of a seven-story, 100x130-ft. building on Chestnut, near Bridge St., for the Y. M. C. A. Estimated cost $93,000. H. A. Moseley is Chn., Bldg. Com.

Worcester, Mass.—(Official)—Plans have been prepared by John T. Simpson, Arch., 1224 Essex Bldg., Newark, N. J., have been accepted by Mayor George M. Wright, and approved by the School Committee, for a $200,000 fireproof addition to the North High School, Salisbury and Lancaster St. Noted Oct. 29.

+Providence, R. I.—The contract for the construction of a $200,000 building for the Rhode Island School of Design has been awarded to NORCROSS BROS. CO., Worcester, Mass.

Bristol, Conn.—Plans are being prepared by W. P. Crabtree, Arch., New Britain, for the construction of a school. Estimated cost, $85,000. C. T. Treadway, Chn., Bldg. Com.

Buffalo, N. Y.—Bids are being received by Francis G. Ward, Comr., Pub. Wks., for the construction of a two-story and basement, 40x100-ft. police station on South Division St., and a two-story and basement, 40x110-ft. police station on Fillmore Ave. Estimated cost, $80,000. Howard L. Beck is City Arch.

New York, N. Y.—(Borough of Bronx)—Plans are being prepared by J. M. Felson for the construction of two five-story apartment houses on 226th St. and White Plains Ave., for A. M. Subo. Estimated cost, $80,000.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by Shampan & Shampan for two six-story apartment houses on Division and Bedford Ave., for the Ross Land Co. Estimated cost, $125,000.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 3 p.m., Jan. 25, by C. B. J. Snyder, Supt., School Bldgs., Park Ave. and 59th St., New York, for the construction of the new Public School, No. 100, on West First and Sheepshead Bay Rd.

New York, N. Y.—(Borough of Brooklyn)—Samuel Sass, 32 Union Sq., New York, is preparing plans for the construction of two six-story apartment houses on South Second and Hughes St., for the South Fifth Ave., Construction Co., 686 Willoughby Ave. Estimated cost, $80,000.

New York, N. Y.—(Borough of Manhattan)—Rouse & Goldstone, 38 West 39th St., are preparing plans for the construction of a 12-story apartment house at 159 East 79th St. for the 161st East 79th St. Co., Inc., 30 East 42nd St. Estimated cost, $250,000.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Louis E. Jallade, 37 Liberty St., for the construction of a four-story, 134x186-ft. Y. M. C. A. building at Washington Ave. and 161st St. Estimated cost, $225,000.

New York, N. Y.—(Borough of Manhattan)—Bids will soon be received by the Aldus Construction Co., for the construchouse at 13 West 55th St., for the George Backer Construction Co., 56 West 45th St. Estimated cost $200,000. Wallis & Goodwillie are Archs.

New York, N. Y.—(Borough of Manhattan)—Bids will soon be received by The Aldus Construction Co., for the construction of a five-story apartment house on Vermilyea Ave., between Isham and 211th St. Estimated cost, $90,000. Noted Dec. 24.

New York, N. Y.—(Borough of Manhattan)—Bids will be received by the Williams Building Co., 132 Nassau St., for the construction of a six-story apartment house at 113th St. and Seventh Ave. Estimated cost, $60,000. Gronenberg & Leuchtag are Archs. Noted Jan. 7.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Schwartz & Gross, 347 Fifth Ave., for the construction of a nine-story apartment house, at 122 East 76th St., for Julius Tishman & Sons, 18 East 41st St. Estimated cost, $200,000.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by Neville & Bagge, Archs., for the construction of a six-story, 100x120-ft. apartment house on St. Nicholas Ave. and 190th St., for Stephen T. Egan. Estimated cost, $125,000.

Rochester, N. Y.—The Board of Education contemplates the construction of a $200,000 building to replace the Normal Training School No. 14, recently destroyed by fire.

Rochester, N. Y.—Bids will be received by J. H. Oberlies, Arch., Granite Bldg., for the construction of a three-story and basement high school on Lake Ave., for the Nazareth Academy. Estimated cost, $150,000. Noted Oct. 15.

Walden, N. Y.—Plans have been prepared by F. E. Estabrook, Arch., Newburgh, N. Y., for the construction of an 86x90x110-ft. town hall for the city of Walden. Estimated cost, $50,000.

East Orange, N. J.—Plans have been prepared by Edward V. Warren for the construction of a six-story, 70x75-ft. apartment house for the Arthur D. Crane Co., Park Ave. and Washington St. Estimated cost, $60,000.

+Newark, N. J.—(Official)—The general contract for the construction of the McKinley School, Eighth Ave. and Factory St., has been awarded to E. M. WALDRON & CO. The UNDERPINNING & FOUNDATION CO., 290 Broadway, New York, N. Y., has been awarded the contract for constructing the foundation. E. F. Guilbert is Arch. for the Bd. of Education.

Lancaster, Penn.—Plans are being prepared by Shank & Estep, Archs., for the construction of a four-story, 90x137-ft. building for the Y. W. C. A. Estimated cost, $75,000.

Philadelphia, Penn.—Plans have been prepared by Horace Trumbauer, for the construction of an 11-story, 50x100-ft. building for the Sydenham Apartment House Co. Estimated cost, $100,000.

+Philadelphia, Penn.—(Official)—The contract for the construction of a school on James and Pratt St., Tacony, has been awarded to THOMAS REILLY, 1616 Thompson St., at $126,525. Noted Jan. 7.

+Philadelphia, Penn.—(Official)—The contract for the construction of an addition to the Southwark School has been awarded to WILLIAM R. DOUGHERTY, 1608 Sansom St., at $69,000.

Pittsburgh, Penn.—Plans are being prepared by the F. S. Schmeltz Co., for the construction of a three-story, 100x120-ft. apartment house in Shadyside, to cost $75,000.

Scranton, Penn.—Bids will be received until Feb. 1, by Albert J. Ward, Arch., Republican Bldg., for the construction of a three-story building for the Y. M. C. A. Estimated cost, $50,000.

Williamsport, Penn.—Plans are being prepared for the construction of a group of buildings for the Industrial Home for Women. Estimated cost, $250,000. Horace Trumbauer, Philadelphia, is Arch.

Wilmington, Del.—Plans have been prepared by A. Edward Rhodes, Arch., 9 Masonic Temple, for the construction of a three-story, 88x182-ft. school. Estimated cost, $140,000.

Lynchburg, Va.—Plans are being prepared by Alfred C. Bossam, 366 Fifth Ave., New York, for the construction of a one-story, 42x132-ft. fireproof building for the Lynchburg National Bank. Estimated cost, $115,000.

Richmond, Va.—The lowest bid received for the construction of a two-story, 60x140-ft. building at Smith and Marshall St., for the Board of Police Commissioners, was submitted by J. T. Nuckols, at $52,200. Carneal & Johnson, Chamber of Commerce Bldg., are Archs. Noted Dec. 24.

Huntington, W. Va.—Bids will be received until Feb. 5, by James K. Oney, Secy., Bd. of Education, for the construction of a three-story, 245x140-ft. high school. Estimated cost, $300,000. Vervus T. Ritter, Carnegie Library Bldg., is Arch. Noted Nov. 5.

Columbus, S. C.—Bids will be received about Feb. 1, by Clemson College, for the construction of a two-story and basement Y. M. C. A. building. Estimated cost, $75,000.

+Savannah, Ga.—The contract for the construction of the nine-story Hicks Hotel on Congress St., has been awarded to the WISE GRANITE & CONSTRUCTION CO., Richmond, Va., at $105,000. Noted Dec. 17.

Birmingham, Ala.—Plans are being prepared by Harry B. Wheelock, Arch., for the construction of a five-story, 50x140-ft. building for the Steele-Smith Co. Estimated cost, $75,000.

Camden, Tenn.—Preliminary arrangements are being made for the construction of a $40,000 courthouse. G. B. Bain, J. S. Wright, W. A. Sashlee, W. D. Cooper, R. S. Stockyard, are members of the Bldg. Comn.

Nonconnah, Tenn.—(Memphis post office)—S. Geismer & Son, 231 McLemore Ave., Memphis, are preparing plans for the construction of a building for the Illinois R.R. shopmen. Estimated cost, $50,000.

Louisville, Ky.—Preliminary plans are being prepared by L. Keller & Son, for the construction of an apartment house at 1909 South Third St., to cost $50,000.

Akron, Ohio—M. C. Winter, Akron plans the construction of a $70,000 theater on Main St.

Canton, Ohio—George F. Hammond, Arch., 4220 Prospect St., Cleveland is preparing plans for the construction of a $400,000 Central High School.

Cincinnati, Ohio—The Cincinnati Y. M. C. A .has purchased a site at Elm St. and the Canal for the construction of a seven to ten-story building. Estimated cost, $500,000.

Cincinnati, Ohio—Plans previously prepared by Harry Hake, Arch., Provident Bank Bldg., have been revised for the construction of the Convention Hall. The estimated cost is $660,000. Noted Oct. 29.

Cleveland, Ohio—Plans are being prepared by Richard Irvin, Arch. and Engr., Union Bank Bldg., Pittsburgh, Penn., for the construction of the eight-story fireproof, reinforced concrete Daylight Bldg., at Lakeside Ave. N. E. and East Third St. for Harry J. Shlosser, Erie, Penn. Estimated cost, $100,000.

Dayton, Ohio—George R. Young and William H. Young have purchased property for the construction of an 11-story theater and office building.

East Cleveland, Ohio—Meade & Hamilton, Archs., are preparing plans for the construction of a one-story Carnegie library on Euclid Ave. Estimated cost, $55,000.

Lakewood, Ohio—Bids will be received until 1 p.m., Feb. 9, by P. T. Harrold, Clk., Bd. of Education for the construction of a library at Detroit and Arthur Ave. Edward L. Tilton, 32 Broadway, New York, N. Y. and Charles W. Hopkinson, 900 Rose Bldg., Cleveland are Archs. Noted Oct. 29.

Lakewood, Ohio—Bids will be received until noon, Feb. 9, by P. T. Harrold, Clk., Bd. of Education for the construction of the McKinley School, West Clifton Blvd. Charles W. Hopkinson, 900 Rose Bldg., Cleveland, is Arch. Noted Nov. 19.

+Portsmouth, Ohio—The contract for the construction of the Garfield School has been awarded to JAMES I. BARNES, Logansport, Ind., at $45,777. Noted Dec. 10.

Ridgeville Corners, Ohio—Bids will be received about Mar. 1 for the construction of a $40,000 church. J. M. Miller, East Cleveland is Arch.

Springfield, Ohio—Plans have been prepared for the construction of a four-story and basement dormitory for boys, at the Ohio Masonic Home. The estimated cost is $60,000.

Toledo, Ohio—The Board of Education has authorized the issuance of $900,000 in bonds for the purchasing of school sites and for the construction of buildings. Noted Oct. 8.

Willoughby, Ohio—Bids will be received until Jan. 26, by the Board of Education for the construction of a three-story and basement high school. Estimated cost, $80,000. F. C. Warner, Hippodrome Bldg., Cleveland, is Arch. Noted Oct. 8.

+Bloomington, Ind.—The contract for the construction of a city hall has been awarded to GEORGE A. WEAVER, Indianapolis, at $38,000.

Evansville, Ind.—The District Union Catholic Societies contemplate the construction of a $100,000 home in Evansville.

Greencastle, Ind.—Bids will soon be received by G. L. Grose, Pres. of De Pauw University, for the construction of a $100,000 gymnasium. Noted Oct. 8 and Dec. 3.

Warsaw, Ind.—The City School Board contemplates the construction of a grade school to cost about $60,000.

+Detroit, Mich.—The contract for the excavation and foundation of a $1,000,000 library at Woodward, Cass, Putnam and Kirby Ave. has been awarded to IRWIN & LEIGHTON, 1338 Dime Bank Bldg., at $61,600. J. B. Kennedy is Secy. of Library Bd. Noted Dec. 17.

Bids will be received about Jan. 25, by the Library Commission for the construction of the superstructure.

Chicago, Ill.—Thomas Tagney, 434 Diversey Parkway, has purchased a site at Surf St. and Cambridge Ave. for the construction of an apartment house. The estimated cost is $175,000.

Eldena, Ill.—Morrison H. Vail, Arch., Galena St., Dixon is preparing plans for the construction of a two-story and basement County Infirmary. Estimated cost, $45,000. Contracts will be awarded about May 1.

Oshkosh, Wis.—Bids will be received about Mar. 1, for the construction of a three-story and basement high school. Estimated cost $100,000. Van Ryn & De Gelleke, 725 Caswell Bldg., Milwaukee, are Archs. Noted Oct. 22 and Dec. 31.

Superior, Wis.—The Bell Telephone Co., of Superior plans to construct a telephone exchange at John Ave. near 14th St. The estimated cost is $100,000. W. F. Hallfrisch is Local Mgr.

St. Paul, Minn.—R. N. Crawford has proposed to the Local Committee of the Association of Commerce, to construct a $500,000 home for working girls on Minnesota St., between 11th and 12th St.

Emporia, Kan.—Plans have been prepared by Shattuck & Hussey, Archs., 19 South La Salle St., Chicago, Ill., for the construction of a Y. M. C. A. building. Estimated cost, $75,000. L. V. Starky is in charge of work.

Sioux Falls, S. D.—Bids will soon be received by W. B. Fuller, Clk. of Bd. of Education for the construction of a school at East Eighth St., Austin, Mable and Blauvelt Ave. Noted Sept. 17.

Springfield, Mo.—The Board of Managers of the Missouri Pythian Home has had plans prepared for the construction of a dormitory addition. Estimated cost, $40,000. Bert E. Woolsey is Secy.

Dallas, Tex.—Louis Lipsitz, Dallas and A. Harris, plan to construct a six-story and basement building on Elm near Harwood St. Estimated cost, $150,000.

El Paso, Tex.—The lowest bid received for the construction of the $500,000 high school was submitted by the Alta Planing Mill Co., Los Angeles, Calif., at $340,000. Noted Sept. 17 and Dec. 10.

Greeley, Colo.—Plans are being prepared by W. N. Bowman, Arch., 915 Central Savings Bank Bldg., Denver, for the construction of a three-story courthouse. The estimated cost is $225,000.

+Spokane, Wash.—(Official)—The contract for the construction of the county tuberculosis sanatorium at Edgecliffe has been awarded to J. E. CUNNINGHAM, 328 Augusta Ave., Spokane, at $45,187. Noted Dec. 31 and Jan. 14.

El Centro, Calif.—The Trustees of the Union High School District plan to vote for $125,000 in bonds for enlarging the high school.

Fresno, Calif.—Bids will be received until 8 p.m., Feb. 5, by C. C. Starr, Secy., Bd. of Education for the construction of the Washington School, at Fresno. W. D. Coates, Jr., Rowell Bldg. is Advisory Arch. Noted Sept. 10.

Palo Alto, Calif.—Allison & Allison, Archs., 1405 Hibernian Bldg., Los Angeles are preparing plans for the construction of a group of polytechnic high school buildings. Estimated cost $150,000.

+Richmond, Calif.—The contract for the construction of an annex to the Richmond School has been awarded to JAMES S. WINTERS, at $49,097.

Sacramento, Calif.—C. C. Cuff, Arch. has prepared plans for the construction of a seven-story business block on K St. Estimated cost is $150,000.

Sacramento, Calif.—Plans have been prepared by E. C. Hemmings, Arch., for the construction of an eight-story office building to cost about $150,000.

Sacramento, Calif.—Preliminary plans have been prepared by E. C. Hemmings, Arch., for the construction of a store and office building on J St. Estimated cost, $100,000.

San Francisco, Calif.—Plans have been prepared by G. Albert Lansburgh, 709 Mission St., for the construction of a three-story addition at Port St. and Van Ness Ave. for the Concordia Club. Estimated cost, $65,000. Noted Sept. 3.

Toronto, Ont.—J. W. Leonard, Asst. to Pres. of Canadian Pacific Ry., Montreal, Que., has been named as executive head of the Terminal Co., which plans to construct a union station for Toronto. The estimated cost is $18,000,000.

The Titanium Alloy Mfg. Co., Niagara Falls, N. Y., announces that a bronze department has been organized and a general line of bronze castings will be produced. The department will be under the direct supervision of W. M. Corse.

CONTRACT PRICE

+Sewer—Boston, Mass.—Bids were received by Louis K. Rourke, Comr. Pub. Ser., for constructing the Dent St. brook sewer from (A) MERRIMAC CONSTRUCTION CO. (awarded contract); (B) West Roxbury Trap Rock Co.; (C) P. Bompiani; (D) J. J. Conway; (E) H. F. Spinach Contracting Co.; (F) FcCarthy & Walsh; (G) M. DeSisto; (H) M. Meehan; (I) A. Barufaldi; (J) J. Landis; (K) C. Latterela; (L) M. DeMateo; (M) A. Cefalo; (N) W. J. Barry; (O) P. W. Hill; (P) J. Driscoll & Son Co. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
750 lin.ft. 8-in. pipe sewer	$1.10	$0.80	$1.25	$0.90	$1.50	$1.40	$1.00	$1.00	$1.70	$2.50	$1.20	$1.75	$1.70	$1.80	$3.50	$1.80
80 lin.ft. 30-in. pipe surface drain	1.25	0.86	0.95	0.80	1.50	1.25	1.25	1.25	1.20	1.67	2.00	1.00	1.50	1.50	1.75	1.80
30 lin.ft. 15-in. pipe surface drain	0.60	0.50	0.92	0.60	1.05	1.00	0.50	0.85	0.90	1.49	1.00	0.90	1.00	0.80	1.75	1.25
370 lin.ft. 12-in. pipe surface drain	0.60	0.50	0.49	0.60	0.98	0.75	0.65	0.70	0.90	1.43	0.70	0.85	1.00	0.80	1.75	1.00
170 lin.ft. 10-in. pipe surface drain	0.50	0.50	0.49	0.50	0.90	0.75	0.65	0.70	0.90	1.39	0.70	0.65	1.00	0.80	1.7.	1.00
820 lin.ft. 4 ft. 6 in. circular concrete surface drain	3.40	1.80	2.25	3.50	3.75	6.50	6.00	2.90	4.50	4.07	3.40	3.95	6.00	6.70	5.00	3.75
1093 lin.ft. 4 ft. 3-in. circularconcrete	3.00	1.80	2.25	3.00	3.50	5.00	3.50	2.65	3.25	3.80	3.00	3.95	6.00	6.40	5.00	3.35
201 lin.ft. 3 ft. 6-in. circular concrete surface drain	2.35	1.50	1.82	2.00	3.25	4.45	2.75	2.40	2.30	3.06	2.70	2.80	5.00	5.30	4.25	2.50
430 lin.ft. 2 ft. 3-in. circular concrete surface drain	1.60	0.90	1.10	1.50	2.50	3.55	1.85	1.65	2.00	2.09	2.60	1.65	3.50	4.50	2.75	1.90
500 cu.yd. rock excavation		5.00	4.00	5.00	0.50		1.00	2.50	2.00	1.90	5.00	1.00	5.00		0.01	4.00
in.ft. spruce piles not exceeding 10 ft. in length		0.40	0.55	0.20	0.40		0.15	0.25	0.10	0.24	0.25	0.10			0.15	0.35
100 M. ft. b.m. spruce lumber for sheeting	5.00	15.00	25.50				22.00	30.00	25.00	24.25	25.00	28.00			13.00	40.00
5 M ft. b.m. 2-in. planed and matched sheeting	50.00	30.00	25.50	60.00	40.00	35.00	65.00	35.00	30.00	30.00	50.00	0.01	80.00	40.00	35.00	30.00
20 M ft. b.m. spruce lumber for platforms	45.00	30.00	29.00	50.00	40.00		30.00	38.00	30.00	24.25	40.00	0.01			35.00	35.00
3300 lin.ft. pipe under drain	0.10	0.10	0.20		0.15	0.15	0.25	0.20	0.10	0.16	0.20	0.35			0.20	0.20
1750 cu.yd., Class A concrete	7.00	6.50	5.95	8.00	7.50	7.00	7.00	7.20	8.00	6.86	7.75	8.45	7.00	7.50	6.50	8.00
220 lin.ft. pipe C-B drain	0.50	0.50	0.57	0.50	0.50	0.75	0.60	1.00	0.50	0.65	0.50	0.35	0.50	0.50	0.70	0.50
20-in. lin.ft. 6-in. pipe for chimney	0.15	0.10	0.25	0.50	0.50		0.05	0.20	0.20	0.15	0.25	0.10		1.00	0.15	0.20
20 lin.ft. 6-in. pipe house drain	0.75	0.50	0.20		0.50		0.25	1.00	0.20	0.80	0.50	0.20		1.00	0.70	0.25
140 lin.ft. old drain reconnected		0.50	0.50	1.00	0.50	1.00	0.25	1.00	0.50	0.65	0.50		1.00	0.50	0.70	0.50
200 slants placed	0.05	0.10	0.20	0.10	0.25	0.10	0.25	0.30	0.10	0.16	0.50	0.10	0.10	0.50	0.50	0.25
12 lin.ft. 12-in. c.i. pipe in old sewer	0.50	1.00	1.00	1.00	1.00	0.50	0.50	0.75	0.50	5.00	1.00	1.00	0.50	2.00	1.00	1.00
3 manholes on sewer	35.00	30.00	35.00	40.00	45.00	35.00	35.00	40.00	40.00	0.48	50.00	40.00	40.00	50.00	40.00	40.00
18 manholes on surface drain	25.00	25.00	35.00	30.00	48.00	35.00	35.00	40.00	35.00	38.00	35.00	25.00	40.00	35.00	35.00	40.00
10 catch basins	45.00	40.00	35.00	50.00	50.00	55.00	55.00	30.00	50.00	56.00	50.00	47.00	50.00	60.00	55.00	50.00
1 manhole invert rebuilt	2.00	20.00	25.00		5.00	5.00	5.00	100.00	3.00	29.00	5.00	10.00	5.00	10.00	10.00	10.00
2 cu.yd. brick masonry		16.00	20.00		13.50		0.01	18.00	1.00	12.00	15.00	0.01			16.00	10.00
1 catch basin trap reset	2.00	5.00	10.00		3.00		3.00	20.00	3.00	3.00	5.00	5.00	5.00	5.00	5.00	10.00
1 connection between new and old conduits	2.00	5.00	25.00		5.00	10.00	5.00	100.00	5.00	10.00	5.00	1000.00		20.00	15.00	10.00
2 pipe cradles	2.00	2.00	5.00		5.00	5.00	5.00	75.00	5.00	5.00	10.00	8.00		10.00	5.00	10.00
Extended totals	**$25,466**	**$25,758**	**$28,008**	**$29,272**	**$30,507**	**$30,779**	**$31,527**	**$30,946**	**$32,157**	**$32,237**	**$33,495**	**$33,758**	**$33,894**	**$34,170**	**$34,171**	**$35,029**

CATALOG NOTICES

Chicago Pneumatic Tool Co., Fisher Building, Chicago, Ill. Bulletin No. 34-K. Fuel oil and gas driven compressors. Illustrated, 24 pp., 6x9 in.

The Bullock Tractor Co., 1801-1825 Diversey Parkway, Chicago, Ill. Catalog. "Creeping Grip" tractors. Illustrated, 32 pp., 6x9 in.

Archbold-Brady Co., Syracuse, N. Y. Catalog. Steel transmission structures and catenary bridges. Illustrated, 32 pp., 6x9 in.

Pawling & Harnischfeger Co., Milwaukee, Wis. Booklet. "Thirty Years of Progress." Illustrated, 52 pp., 8x10 in.

The Phosphor-Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Penn. Price List No. 27. Illustrated, 32 pp., 3½x6 in.

Harrison Safety Boiler Works, Philadelphia, Penn. Catalog No. 601. Cochrane Multiport Valves. Illustrated, 72 pp., 6x9 in.

Sandusky Portland Cement Co., Sandusky, O. Spanish catalog. Portland cement. Illustrated, 32 pp., 7x9 in.

Sangamo Electric Co., Springfield, Ill. Bulletin No. 40. Single-phase and polyphase A. C. watthour meters. Illustrated, 32 pp., 8x10½ in.

Hydraulic Ramming Concrete Stone Machinery, Paterson, N. J. Catalog. Hydraulic ramming machinery for the manufacture of reconstructed stone. Illustrated, 32 pp., 6x9 in.

Lagonda Mfg. Co., Springfield, O. Catalog L-8. Boiler tube cleaners. Illustrated, 32 pp., 7½x10 in.

The Asbestos Protected Metal Co. announces that on Feb. 1 1915, the general offices of company, including the executive, accounting, sales and engineering staffs, will be moved from Beaver Falls to the First National Bank Bldg., Pittsburgh. The manufacturing operations of the company will continue as heretofore, at Beaver Falls, Penn. and at Waltham, Mass.

The Socorro Mining & Milling Co. has been granted an extension until Jan. 25, 1917, by James A. French, State Engr., Santa Fé, N. M., for the completion of the hydro-electric plant to supply power to mines and mills in the Mogollon district, Socorro County, N. M. Work upon this plant has already been in progress almost three years, and about $90,000 has been spent. About $90,000 more will be required to complete the plant. It is planned to develop about 1000-hp. at the beginning, of which the larger part will be required by the Socorro Mining & Milling Co. Oil engines are now being used to develop power, and the operating expenses are high, due to the great expense of transporting oil from Silver City, 90 miles distant.

A Contract has been placed with the S. Morgan Smith Co., York, Penn., for two 45-in. vertical wicket gate wheels for the Bangor Water Works, Bangor, Maine. The power developed by these wheels is to be used to run motors in connection with the water system. The electrical equipment will be furnished by the General Electric Co.

CONTRACT PRICE

State Highways—California—Bids were received by the State Highway Commission, Sacramento, Calif., for constructing highways in Sutter, Los Angeles, Siskiyou and Orange Counties, from (A) Tyler & Berliner, Los Angeles; (B) Chico Construction Co., Chico; (C) P. L. Burr, San Francisco; (D) Tieslau Bros., San Francisco; (E) L. F. Gerdetz, San Francisco; (F) C. H. & A. W. Gorrill, San Francisco; (G) Bates, Borland & Ayer, Oakland; (H) Whitlock & Gorrill, San Francisco; (I) E. T. Johnson, Portland, Ore.; (J) Forest City Paving & Construction Co., San Francisco; (K) F. A. Keasal, San Francisco; (L) Robert Sherer, Los Angeles; (M) Chadwick & Sykes, Inc., San Francisco; (N) Lynn S. Atkinson, Los Angeles; (O) De Moor Construction Co., Los Angeles; (P) A. C. McLean Construction Co., San Francisco; (Q) Twohy Bros., San Francisco; (R) Mahoney Bros., San Francisco; (S) Richard Bothwell and A. H. McCray, Los Angeles; (T) H. A. Taylor, Los Angeles; (U) Palmer & McBryde, San Francisco; (U-1) James Fitzpatrick, Sacramento; (V) Smith & Brice, Eureka; (W) Warren A. Bechtel, Alton, Calif.; (W-1) Charles Daley & Co. and Hans Pederson, Seattle, Wash.; (X) F. Rolandi, San Francisco; (X-1) Callahan & Hedrick, El Centro; (Y) Blanchard-Brown Co., San Francisco; (Y-1) Berry Mackie & Co., San Francisco; (Z) M. A. Co., Inc., Los Angeles; (Z-1) Modern Construction Co., Inc., Los Angeles. The item bids were as follows:

Siskiyou County

	I	U	U-1	V	X	Y	Y-1
58,740 cu.yd. earth excavation	$0.29	$0.85	$0.50	$0.30	$0.73	$0.60	$0.35
17,130 cu.yd. loose rock excavation	0.49	0.85	0.75	0.60	0.73	0.75	0.68
36,160 cu.yd. solid rock excavation	0.84	0.85	1.00	1.10	0.73	1.10	0.80
3473 lin.ft. 12-in. corrugated iron pipe	0.40	2.00	1.75	0.60	0.60	0.60	0.50
1442 lin.ft. 18-in. corrugated iron pipe	0.60	2.25	2.00	0.70	0.75	0.70	0.70
636 lin.ft. 24-in. corrugated iron pipe	0.75	2.50	2.25	0.80	1.00	1.00	1.00
1144 cu.yd. concrete, Class B	17.75	25.00	15.00	18.00	17.00	15.00	12.00
2826 cu.yd. dry rubble	2.00	4.00	5.00	2.50	2.00	4.50	3.00
1150 cu.yd. slope paving	3.50	4.00	3.00	3.50	3.00	4.00	2.00
4.75 miles new property fences	150.00	250.00	200.00	250.00	150.00	200.00	100.00
880 monuments	1.00	1.00	1.50	1.00	1.00	1.00	1.00
Extended totals	$90,522	$154,265	$126,330	$105,715	$116,000	$128,316	$90,653

Orange County

	X-1	Z	Z-1
24,000 cu.yd. excavation without classification	$0.715	$0.55	$0.60
32 lin.ft. 12-in. corrugated iron pipe	0.50	0.50	0.75
352 lin.ft. 18-in. corrugated iron pipe	0.60	0.65	0.75
50 lin.ft. 24-in. corrugated iron pipe	0.80	0.80	0.75
18 lin.ft. 30-in. corrugated iron pipe	2.50	2.50	0.75
55 cu.yd. concrete Class B, for culverts and monuments	15.00	15.00	12.00
4860 cu.yd. concrete Class B for pavement	5.15	4.00	4.70
92 monuments	0.80	1.00	1.00
Extended totals	$45,344	$35,831	$40,763

Sutter County

	A	B	C	D	E	F	G	H	I	J
20,000 cu.yd. excavation without classification	$0.60	$0.65	$0.90	$0.85	$0.85	$0.65	$0.75	$0.68	$0.60	$0.55
552 lin.ft. 12-in. corrugated iron pipe	0.50	0.50	0.50	0.50	0.50	0.50	0.60	0.50	0.50	0.40
26 lin.ft. 18-in. corrugated iron pipe	1.90	0.65	0.70	0.60	0.60	0.60	0.60	0.75	0.75	0.50
26 lin.ft. 24-in. corrugated iron pipe	2.90	0.75	0.80	0.75	0.75	0.75	0.60	1.00	1.00	0.60
120 cu.yd. concrete, Class B, for culverts and monuments	17.00	9.00	9.50	10.50	10.00	9.50	10.00	9.50	10.00	9.50
11,500 cu.yd. concrete, Class B, for pavement	3.00	3.00	3.25	3.25	3.50	2.37	3.00	2.87	3.50	3.10
1500 lin.ft. guard rail	0.50	0.40	0.35	0.40	0.40	0.35	0.35	0.50	0.40	0.35
100 monuments	1.00	0.90	1.00	1.25	1.00	1.50	3.00	1.00	1.00	1.10
Extended totals	$49,791	$49,582	$53,455	$56,696	$59,461	$42,381	$51,887	$48,916	$54,471	$48,674

Los Angeles County

	K	L	M	N	O			P		
635,000 cu.yd. excavation, without classification	$0.48	$0.44	$0.695	$0.85	$0.37	$0.39	$0.41	$0.44	$0.46	$0.48
2480 lin.ft. 12-in. corrugated iron pipe	0.60	0.75	1.00	2.00	0.50	0.50	0.50	0.40	0.40	0.40
8140 lin.ft. 18-in. corrugated iron pipe	0.60	1.00	1.00	2.00	0.60	0.60	0.60	0.70	0.70	0.70
910 lin.ft. 24-in. corrugated iron pipe	0.80	1.25	1.00	2.00	0.70	0.70	0.70	1.00	1.00	1.00
310 lin.ft. 30-in. corrugated iron pipe	1.00	1.55	1.00	2.00	1.00	1.00	1.00	1.50	1.50	1.50
620 cu.yd. concrete, Class B	18.00	13.50	20.00	30.00	16.00	16.00	16.00	15.00	15.00	18.00
5930 cu.yd. dry rubble	3.00	3.50	5.25	8.00	0.50	0.50	0.50	3.00	3.00	3.00
1340 monuments	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Extended totals	$342,500	$321,483	$498,707	$630,810	$256,346	$268,946	$281,646	$315,895	$328,595	$343,155

	Q			R			S	T	U	V		W	W-1
635,000 cu.yd. excavation, without classification	$0.41	$0.415	$0.45	$0.41	$0.42	$0.45	$0.70	$0.53	$0.64	$0.575	$0.59	$0.76	$0.54
2480 lin.ft. 12-in. corrugated iron pipe	0.50	0.50	0.50	0.50	0.50	0.50	0.80	0.70	2.00	0.50	0.50	0.75	0.40
8140 lin.ft. 18-in. corrugated iron pipe	0.60	0.60	0.60	1.00	1.00	1.00	1.00	0.90	2.50	0.60	0.60	0.90	0.50
910 lin.ft. 24-in. corrugated iron pipe	0.75	0.75	0.75	1.00	1.00	1.00	1.25	1.25	3.00	0.70	0.70	1.25	0.65
310 lin.ft. 30-in. corrugated iron pipe	1.00	1.00	1.00	1.50	1.50	1.50	1.50	1.60	3.25	0.80	0.80	1.50	0.85
620 cu.yd. concrete, Class B	13.50	13.50	13.50	20.00	20.00	20.00	25.00	20.00	30.00	18.00	18.00	22.50	9.00
5930 cu.yd. dry rubble	4.00	4.00	4.00	4.00	4.00	4.00	8.00	5.20	5.00	3.50	3.50	7.25	2.00
1340 monuments	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.25	1.00	1.00	2.00	1.00
Extended totals	$300,896	$304,071	$326,296	$308,565	$314,915	$333,965	$520,506	$391,821	$485,372	$405,389	$414,914	1553,011	$367,597

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

RAILWAYS

New York—Grasse River R.R.—This company has obtained a new charter to construct a railway to connect its present line at Cranberry Lake with the St. Lawrence and Adirondack divisions of the New York Central R. R. William T. Turner, Utica, Evan T. Jones, Bradford, Penn., and Walter P. Coaker, Buffalo, are Dirs.

Pennsylvania—Unity Rys.—This company has been incorporated to construct a railway in Allegheny and Westmoreland Counties. Boyer, Jones & Morton, Pittsburgh, Penn., are Attorneys for the company.

✚Virginia—Southern Ry.—Contracts for second track work have been awarded by this company to the MORROW CONSTRUCTION CO., Atlanta, Ga., from Orange to Burnley, Va., about 15 miles, and to C. W. LANE & CO., Atlanta, Ga., from Burnley to Charlottesville, about 13 miles. Noted Jan. 21.

Louisiana—Arkansas, Louisiana & Gulf Ry.—This company is being organized to construct a railway from Monroe, La., to Monticello, Ark.

Tennessee—Jellico, Capachins & Western R.R.—This company is being organized to construct a railway, about 30 miles long, in eastern Tennessee, west of Jellico, Tenn.

Illinois—Burlington, Mississippi River & Northern R.R.—This company is being organized for the purpose of constructing a railway from a point near Arpee to Milan, Ill., to connect with the Chicago, Rock Island & Pacific Ry. Wentworth Holmes, Joy, Ill., is interested.

✚Wisconsin—Wisconsin & Northern R.R.—This company has awarded a contract to PETER NELSON & CO., Temple Court, Minneapolis, Minn., for grading its proposed line, from a point about five miles north of Van Ostrand, to Crandon, Wis.

Arkansas—Arkansas, Louisiana & Gulf Ry.—See item under Louisiana.

✚Utah—Union Pacific R.R.—The CHRISTENSEN CONSTRUCTION CO., Salt Lake City, Utah, has been awarded a contract by this company for double-tracking its line from Ogden to Gateway Bridge in Weber Cañon. Noted Nov. 26.

Utah—Union Pacific R.R.—Press reports state that this company is making preliminary surveys for the construction of a railway from a point on the main line in Wyoming to Park City, Utah. R. L. Huntley, Omaha, Neb., is Ch. Engr.

ELECTRIC RAILWAYS

Meriden, Conn.—The Connecticut Co. contemplates the construction of an electric railway on Capitol Ave., from Main to Lockwood St., in Meriden. Robert P. Lee, Meriden, is Supt.

New Haven, Conn.—The Connecticut Co. has applied to the City Council for a franchise to construct an electric railway on Whaley Ave. to the New Haven County property. F. P. Harlan, New Haven, is Mgr.

Monaca, Penn.—A company is being organized to construct an electric railway from Monaca to Coraopolis. John W. Reid, John J. Allen, D. J. Mitchell, Edward Thomas and H. L. Grimmell are interested.

✚Andrews, N. C.—According to press reports the Hiawassee Valley Ry. Co. has awarded a contract to R. L. HERBERT, for constructing an electric railway from Andrews, N. C., to Hiawassee, Ga., about 35 miles. Noted Mar. 5 and Aug. 6.

Columbia, S. C.—Plans are being prepared by the Columbia Ry., Gas & Electric Co., for the reconstruction of its line on Elmwood Ave. Alfred Wallace, Columbia, is Gen. Mgr. and Pur. Agt.

Birmingham, Ala.—The Milner Land Co. has applied to the City Council for a franchise to construct an electric railway from 15th Ave. and 20th St. to Key Circle, in the company's new division. Henry Key Milner is Pres.

Gadsden, Ala.—The Alabama City, Gadsden & Attala Ry. is considering plans to lay new track and build a loop in Gadsden. C. J. Zell, Gadsden, is Gen. Mgr. and Supt.

Shreveport, La.—The Texas-Louisiana Traction Co. contemplates constructing a line from Shreveport to Marshall. A. B. Blevins, Jefferson, is Pres.

Chattanooga, Tenn.—The Chattanooga Traction Co. plans to construct about 20 miles of new track in Chattanooga, during 1915. W. T. Jones, Chattanooga, is Vice-Pres. and Gen. Mgr.

Akron, Ohio—The Northern Ohio Traction & Light Co. plans to construct 2.67 miles of new track this year. Charles Currie, Akron, is Vice-Pres. and Gen. Mgr.

Hobart, Ind.—The Gary, Hobart & Eastern Traction Co. contemplates the construction of 12 miles of new track to connect Glen Park, New Chicago and Hobart. B. J. Schramm, Hobart, is Gen. Supt. and Pur. Agt.

Carbondale, Ill.—The Murphysboro & Southern Illinois Ry. Co. has been granted a franchise to construct an electric railway through Carbondale. This is part of a proposed line to connect Carbondale and Murphysboro, about 12 miles. A. B. Minton, Murphysboro, is Pres. Noted Nov. 19.

Cedar Rapids, Iowa—The Cedar Rapids & Marion City Ry. Co. is preparing plans for the construction of about four miles of new track in Cedar Rapids. E. C. Allen, Cedar Rapids, is Secy. and Gen. Mgr.

Iowa City, Iowa—The Mississippi Valley Electric Co. plans to construct 1½ miles of new track this year. J. O. Schulze is Pres. and Gen. Mgr.

Moberly, Mo.—The Moberly, Huntsville & Randolph Springs Ry. Co. plans to start shortly the construction of its line connecting Randolph - Springs, Moberly and Huntsville. Charles H. Dameron, Huntsville, is Pres.

St. Louis, Mo.—The United Rys. Co. of St. Louis contemplates extending its Lee St. line on Taylor Ave. to the city limits. Robert McCulloch, St. Louis, is Pres. and Gen. Mgr.

Dallas, Tex.—L. C. Bradley, representative of the Stone & Webster Engineering Corporation, Boston, Mass., has announced that the company will construct an interurban electric railway from Dallas to Terrell.

Guthrie, Okla.—The Oklahoma Ry. Co. is making preliminary arrangements for the construction of an extension from Edmond to Guthrie, about 17 miles. George W. Knox, Oklahoma, is Vice.-Pres. and Gen. Mgr.

Twin Falls, Idaho—Plans are being prepared by the Sandpoint & Interurban Ry. Co. for the construction of an electric railway from Shoshone Falls to Twin Falls, about five miles. A. Filson, Sandpoint, is Pres., Gen. Mgr. and Pur. Agt.

Los Angeles, Calif.—Plans are being prepared by the Pacific Electric Ry. Co. for the extension of its lines on the East Side, Los Angeles, to Eighth St., Riverside. J. McMillan, Los Angeles, is Gen. Mgr.

Riverside, Calif.—The Riverside, Rialto & Pacific Ry. Co. has been incorporated to construct an electric railway to connect Riverside, Bloomington and Rialto, about ten miles. W. G. Henshaw, William Lees, William H. Metcalf and Henry Chickering are the incorporators.

San Jose, Calif.—The San Jose Terminal Ry. Co. has applied to the City Council for an extension of time on its franchise to construct an electric railway in the northern section of San Jose.

LIGHT, HEAT AND POWER

Greenville, Maine—The Public Utilities Commission has granted the Greenville Light & Power Co. permission to purchase the properties and franchises of the Sangerville Improvement Co., the Sebec Power Co., and the Dover & Foxcroft Light, Heat & Power Co. Louis M. Galusha, Greenville, is Mgr. of the Greenville Light & Power Co.

Waltham, Mass.—It is reported that the Trustees of the Waltham Hospital have recommended the installation of a power plant to furnish light, heat and power for the hospital buildings.

✚★New Britain, Conn.—(Official)—The following contracts were awarded, from bids opened Jan. 20, in connection with the construction of the new vocational High School on Bassett St.: Plumbing and electrical work, HANLON & MURPHY, Hartford, at $6000 and $2032, respectively; heating and ventilating, LIBBY & BLINN, Hartford, $11,725. Walter P. Crabtree, 272 Main St., New Britain, is Arch. Noted Nov. 12 and 26, Jan. 14.

Rockville, Conn.—Press reports state that the Rockville Gas & Electric Co. is considering the extension of its transmission lines from Rockville to Vernon Center to furnish electricity to that section. M. J. Cullen, Rockville, is Cont. Agt.

★Binghamton, N. Y.—(Official)—Bids were opened Jan. 21, by the State Hospital Commission, Albany, for heating, plumbing and drainage, electrical work, and boiler and stack for the new building for chronic patients at the Binghamton State Hospital. The following are the three lowest bids for each division of the work. Heating: Gaylord Engineering & Construction Co., Binghamton, $19,823; R. T. Ford Co., Rochester, $19,737; George H. Drake, Buffalo, $19,836. Plumbing and drainage: Burns Bros., Syracuse, $13,426; Peter Keeler Building Co., Albany, $13,122; P. J. Sullivan Co., Inc., Syracuse, $14,866. Electrical work: Watson-Flagg Engineering Co., New York, $6428; S. G. Waterman, 817 Broadway, New York, $6643; New York Construction Co., New York, $6315. Boiler and stack: Flood & Van Wirt Co., Hudson Falls, $19,500; R. T. Ford Co., $19,800; Peter Keeler Building Co., $19,922. Noted Jan. 7.

✚★Lockport, N. Y.—(Official)—The Board of Education has awarded the contract for plumbing, heating and ventilating systems in the Lockport Union School, recently enlarged and improved, to MAPES & PAYNE, Lockport, at $5700 for the plumbing, and $12,640 for the heating and ventilating work.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 3 p.m., Feb. 1, by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., Borough of Manhattan, for electrical equipment in new Public School 50, Driggs Ave. and South Third St., Borough of Brooklyn.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 10:30 a.m., Feb. 8, by the Department of Public Charities, Room 1091, Municipal Bldg., Borough of Manhattan, for installing new steam lines for carrying exhaust steam from the Kings County Hospital, Borough of Brooklyn. John A. Kingsbury is Comr. of Pub. Charities.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 3 p.m., Feb. 1, by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., Borough of Manhattan, for electrical equipment in new Public School 91, Central Ave., between Folsom and Fosdick Ave., Glendale, Borough of Queens.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 3 p.m., Feb. 4, by the Park Board, Municipal Bldg., Borough of Manhattan, for heating system for the Administration Building, Forest Park, Borough of Queens. Cabot Ward is Pres. of the Park Bd.

Watertown, N. Y.—Horace Sweet, Consult. Engr., Utica, N. Y., has submitted a report estimating the cost of installing a municipal plant for street lighting at $109,756. Plans provide for setting the water wheels in the power house, and constructing a new distributing system to maintain the same number of lamps now used. The existing contract between the city and the Watertown Light & Power Co. allows the city to take over the present street-lighting system for $63,892

Hackettstown, N. J.—Bids for heating and ventilating systems in the new school were opened by the Board of Education, Jan. 21, as follows: E. C Woolfolk & Co., New York, N. Y., $8269; John H. Cooney, Harrison, N. J., $8287; M. J. Salaban, $8555; Alvard & Smith, New York, $8652; Osmun & Co., $10,292; R. A. Cook, $12,059 for "Monarch" system.

Newark, N. J.—It is reported that the Public Service Electric Co. will build a new sub-station for transformer service at Ave. R and Haynes Ave.

Allentown, Penn.—Bids will be received until Feb. 10, by the Board of Education, for the construction and equipment of a power plant, electrical equipment, heating and ventilating systems for the new High School building now under construction. Runyon & Carey, 843 Broad St., Newark, N. J., is Engr. in Charge. Ruhe & Lange, 12 North Sixth St., Allentown, is Arch.

+Holmesburg, Penn.—The Department of Public Health and Charities, Philadelphia, has awarded the contract for the construction of a power plant at the Home for the Indigent, Holmesburg, to the W. W. ANSTINE CO., 1214 Filbert Bldg., Philadelphia, at $56,537. Noted Dec. 3, Jan. 7 and 21.

Yardley, Penn.—Press reports state that the New Jersey & Pennsylvania Traction Co., Trenton, N. J., will erect a 125-ft. stack at its power station at Yardley. Gaylord Thompson, Trenton, is Vice-Pres. and Gen. Mgr.

Quitman, Ga.—See item under "Water Supply—Irrigation."

Lanett, Ala.—The Lanett Cotton Mills, owner of the local electric light plant, will, it is reported, purchase within the next three months, one 200-kv.-a., three-phase, 60-cycle, 600-volt generator, with exciter, switchboard equipment and 25 watt-hour meters. It will also install about 40 additional 100-cp. street lamps. W. Oscar Orr, Lanett, is Electrical Supt.

Winnfield, La.—The Johnson Ice & Light Co. is reported to be considering the establishment of an electric light system, ice factory and refrigerating plant in Winnfield.

Rockport, Ky.—Press reports state that the Town Board has granted a franchise to the Rockport Coal Co. for the installation of an electric light plant at its works in Rockport.

Cedarville, Ohio—The plant of the Cedarville Light & Power Co. will be remodeled and enlarged. It is reported that negotiations are under way for the purchase of this plant by the Dayton Power & Light Co., Dayton, Ohio.

St. Clairsville, Ohio—The Board of Public Affairs has decided to improve the municipal electric light plant. It is reported that several private companies have made offers to furnish power to the town. H. A. Norris is Supt. of the municipal plant.

Youngstown, Ohio—It is reported that bids will be received until Jan. 29, by Beeler Heasley, Dir. of Pub. Ser., for furnishing power and equipment for the new street-lighting system.

Hillsdale, Mich.—Bids will be received until Feb. 24, by the Board of Public Works, for one 300-hp. and one 350-hp. water tube boiler, and stokers for the same. J. C. Hanson is Mgr., Cont. Agt. and Supt. of the municipal electric light plant. Noted Jan. 21.

Monroe, Mich.—The River Raisin Electric Co., Monroe, which recently secured a franchise to furnish electrical power in Carleton, plans also to build power plants in Raisinville and Petersburg. W. H. Knapp, Monroe, is Engr. in Charge.

Sullivan, Ill.—At a recent special election, the citizens voted in favor of a bond issue of $35,000 for the purpose of constructing a municipal electric-light plant.

Des Moines, Iowa—It is reported that the Des Moines Electric Co. has planned to spend more than $500,000 for improvements during this year. The larger part of it will be used for additions to the power plant. New turbo-generators with boilers and auxiliary apparatus will be installed.

+Natoma, Kan.—It is reported that the contract for the construction of a municipal electric light plant has been awarded to the F. D. MARTIN CONSTRUCTION CO., Kansas City, Mo. W. B. Collins & Co., Kansas City, Mo., is Engr.

Blair, Neb. —Press reports state that the Martz Engineering Co., 416 First National Bank Bldg., Lincoln, Neb., is preparing plans for a municipal light plant for Blair to cost about $35,000. Bids will probably be asked in about 90 days.

Madison, S. D.—It is reported that the city will soon call for bids for a directly connected generating unit for the municipal electric light plant, consisting of a 450- to 500-hp. engine and a 350- or 400-kw. alternating current generator. William Rae is City Audr. Noted Jan. 7.

Fairview, Mont.—C. W. Jenison, Fairview, has applied to the City Council for a 30-year franchise to construct and operate an electric light and power plant in Fairview.

Snyder, Tex.—E. F. Renken, who recently purchased the local electric light and power plant, will install some new equipment, including an oil engine. The estimated cost of the improvements is $15,000.

Temple, Tex.—The Temple Gas Light Co. has been granted permission by the Commissioners Court of Bell County to lay its gas mains along the public roads. The company plans to extend its distributing system from Temple to Belton.

+Green River, Utah—The City Council has awarded the contract for the construction of a municipal electric-light and power plant to the GREEN CONSTRUCTION CO., Tooele, Utah, at about $20,000.

Marblemount, Wash.—It is reported that the Stone & Webster interests, Boston, Mass., with offices at Seattle, will shortly begin the construction of a power plant on the Skagit River, 22 miles above Marblemount. Two sites have been secured, and plans are being prepared for the work.

Salem, Ore.—The City Council is considering the question of installing a municipal electric light plant. Preliminary plans estimate the cost at from $200,000 to $250,000. Walter Skelton is City Engr.

BRIDGES

Hartford, Conn.—The Board of Aldermen has requested the Mayor to call a special election for the purpose of voting on an appropriation of $35,000 to be used for rebuilding the Capitol Ave. Bridge over the Park River. Louis R. Cheney is Mayor.

Buffalo, N. Y.—See item under "Buildings."

Hightstown, N. J.—The Board of Chosen Freeholders of Mercer County, Trenton, is considering the construction of a new county bridge near Hightstown to replace the present structure. Theodore Tobish is County Engr.

New Brunswick, N. J.—The Board of Chosen Freeholders of Middlesex County is considering rebuilding the bridge and culvert at Station No. 33, Woodbridge Ave., Woodbridge Township.

+Perth Amboy, N. J.—The Board of Chosen Freeholders of Middlesex County has formally awarded the contract, pending for the last few months (see "Engineering News," of July 30, 1914) for a bridge at Convery Place, over the tracks of the Lehigh Valley R.R., to HENRY W. SCHRIMPF, at $33,679. It is understood that a sub-contract will be awarded for the masonry work.

+Baltimore, Md.—The State Roads Commission has awarded the contract for the construction of Sections 7 and 8, 500 and 100 ft. long respectively, of the Hanover St. Bridge to the RAYMOND CONCRETE PILE CO., Munsey Bldg., Baltimore, at $104,058. The contract for sheet asphalt paving, 50 ft. wide, on a part of the bridge, was awarded to P. FLANIGAN & SONS, 14 East Lexington St., Baltimore, at $72,781.

Richmond, Va.—The Administrative Board has authorized T. Crawford Redd to prepare preliminary plans for a reinforced-concrete viaduct over Shockoe Creek Valley between Richmond and Barton Heights. Charles E. Bolling is City Engr.

Elkins, W. Va.—Bids will be received until Mar. 1, by the Randolph County Court, Elkins, for the construction of a number of bridges on several county turnpikes. All bridges will be of either concrete or reinforced-concrete.

Rome, Ga.—(Official)—The date has not yet been fixed for receiving bids for the construction of three bridges. There will be two 300-ft. bridges over the Etowah River, and a 300-ft. drawbridge over the Oostanaula River. Concrete arches will be used wherever possible. J. E. Greiner, Baltimore, Md., and W. C. Spiker, Atlanta, Ga., are Consult. Engrs. Kieffer Lindsey is County Engr. of Floyd County, Ga. Noted Dec. 3 and Jan. 14.

Okolona, Miss.—(Official)—Bids will be received until noon, Feb. 1, by the Board of Supervisors of Chickasaw County, for the construction of nine steel or concrete bridges in District No. 3. H. E. Brannon, Houston, Miss., is Chancery Clk. J. D. Williams, Okolona, is Deputy Clk.

Fayetteville, Tenn.—It is reported that the Tennessee & Alabama R.R. Co. will build a 100-ft. bridge in connection with a railway, 34 miles, to be built between Fayetteville, Tenn., and Huntsville, Ala. J. E. Hurd is Ch. Engr.

Zanesville, Ohio—Bids will be received until Feb. 1 by the Board of Commissioners of Muskingum County for the steel superstructure of a 51-ft. bridge. Fred C. Werner is Clk. of Comrs.

East Gary, Ind.—The Commissioners of Lake County, Crown Point, have, it is reported, voted an appropriation of $25,000 for the construction of a bridge over the Deep River at East Gary. Noted Sept. 24, 1914, under Crown Point.

Hammond, Ind.—The Board of Commissioners of Lake County, Crown Point, has made an appropriation for the construction of a steel bridge over the Calumet River at Calumet Ave., Hammond.

+Laporte, Ind.—(Official)—The Board of Commissioners of La Porte County has awarded the contract for the construction of 12 steel bridges, ranging from 24 to 46 ft. long, to the ROCHESTER BRIDGE CO., Rochester, Ind. Fred A. Hausheer is County Audr. Noted Jan. 14.

+Portland, Mich.—The Township Board has awarded the contract for the construction of a single-span girder bridge over the Lookingglass River near the plant of the Portland Milling Co. to the WYNKOOP-McGORMLEY CO., Toledo, Ohio, at $7998.

Atkinson, Ill.—(Official)—Bids will be received until 2 p.m., Feb. 1, at the Town Hall, Atkinson, for the construction of the Jerome Black and Lewis Bridges, Cornwall Township, Henry County. They will be 22 ft. and 60 ft. long respectively, with 16-ft. roadways, both of reinforced-concrete. James H. Reed, Cambridge, Ill., is County Supt. of Highways.

Cairo, Ill.—The Mobile & Ohio R.R. is preparing to begin work on its bridge over the Ohio River at Cairo. The estimated cost is $2,500,000. W. H. Wells, Washington, D. C., Ch. Engr. of Const. for the Southern Ry., will be in charge of the work. Noted July 30 and Sept. 3, 1914.

+**Lebanon, Ill.**—(Official)—The County Superintendent of Highways of Christian County has awarded the contract for the construction of three reinforced-concrete bridges, two in O'Fallon Township, and one in Shiloh Valley Township, to the EAST ST. LOUIS BRIDGE CO., East St. Louis, Ill., at $8812 for the three. D. O. Thomas is County Supt. of Highways. Noted Dec. 17.

Princeton, Ill.—(Official)—Bids will be received until 2 p.m., Feb. 9, by F. R. Bryant, County Supt. of Highways of Bureau County, for the construction of the Captain Swift Bridge, Princeton Township. It will have a 120-ft. steel span with an 18-ft. roadway. The estimated cost, including retaining wall and back fill, is $8530. Bids will be received at the same time for two small reinforced-concrete bridges, No. 1, Gold Township, and No. 6, Manlius Township.

Sorento, Ill.—(Official)—Bids will be received until 11 a.m., Jan. 30, by R. O. Young, County Supt. of Highways of Bond County, Central Hotel, Sorento, for the construction of the Mount Moriah Church Bridge, between La Grange Township, Bond County, and East Fork Township, Montgomery County, and for the Pence Bridge, between Shoal Creek Township, Bond County, and Walshville Township, Montgomery County.

Appleton, Wis.—(Official)—We are advised that the matter of a new bridge over the Wolf River at Lawe St. has been dropped for the present. E. L. Williams is City Clk. Noted Sept. 17.

Corning, Iowa—(Official)—Bids will be received until noon, Feb. 1, by the Board of Supervisors of Adams County for bridge and culvert supplies and construction material, and for the construction of one or more concrete culverts. F. W. Yeadon is County Audr.

Fraser, Iowa—It is reported that the Fort Dodge, Des Moines & Southern R.R. Co., Boone, Iowa, will soon replace its wooden bridge over the Des Moines River at Fraser with a rainforced-concrete structure about 800 ft. long, estimated to cost $40,000. C. H. Crooks, Boone, is Gen. Mgr. of the company.

Nevada, Iowa—Bids will be received until Jan. 29, by the Auditor of Story County, for the construction of 191 reinforced-concrete bridges and culverts, and a steel bridge with concrete floor.

+**Spencer, Iowa**—The Board of Supervisors of Clay County has awarded the contract for the construction of a bridge over the Little Sioux River at the south end of Main St., to the THOR CONSTRUCTION CO., Cedar Falls, Iowa, at $30,121. Noted Nov. 26.

Austin, Minn.—(Official)—Bids will be received until 2 p.m., Feb. 5, by the County Board of Commissioners of Mower County, for bridge material to be delivered between Apr. 1 and Nov. 1, 1915, at any station in Mower County most convenient to proposed bridges as ordered by the District Engineer. W. H. Goodsell is Chn. of County Bd. O. J. Simmons is County Audr.

Ivanhoe, Minn.—Bids will be received until 1 p.m., Feb. 10, by Karl A. Hansen, Audr., of Lincoln County, for the construction of Bridge No. 1275. It will have a concrete floor on reinforced-concrete foundation.

+**Anthony, Kan.**—(Official)—The Board of Commissioners of Harper County has awarded the contract for the construction of five reinforced-concrete bridges, from 23 to 299 ft. long, to W. N. McELROY, Fort Scott, Kan., at $11,750. The contract for the construction of seven low-water bridges was awarded to the STAMEY-MACKEY CO., Hutchinson, Kan., at about $5000. Noted Dec. 17 and 31.

+**Geneva, Neb.**—(Official)—The Board of Commissioners of Fillmore County has awarded the contract for the construction of all steel bridges in the county during 1915 to FRANK CRAVEN, Exeter, Neb. The contract for all concrete bridges for the same period was awarded to J. W. KEMP, Shickley, Neb. Bert A. Lynn is County Clk. Noted Dec. 24.

Seward, Neb.—Bids will be received until 1 p.m., Feb. 3, by J. R. Roberts, Clk. of Seward County, for all county bridge work during 1915. About 25 bridges will be built or repaired.

+**York, Neb.**—(Official)—The Board of Commissioners of York County has awarded the contract for bridge work in the county during 1915 to the WESTERN BRIDGE & CONSTRUCTION CO., Bee Bldg., Omaha, Neb. Noted Dec. 31.

+**Warrensburg, Mo.**—The County Court of Johnson County has awarded the contract for the construction of about 30 steel bridges in the county during 1915 to the EAST ST. LOUIS BRIDGE CO., East St. Louis, Ill., at $10,993. Other bidders were: Decatur Bridge Co., $11,450; Leavenworth Bridge Co., $11,885; Illinois Steel Bridge Co., $13,433; Midland Bridge Co., $11,991; Western Bridge Co., $11,354; Kansas City Bridge Co., $12,100; Vincennes Bridge Co., $11,643.

Palo Pinto, Tex.—Bids will be received until Feb. 8, by the Commissioners Court of Palo Pinto County, for the construction of bridges and culverts on the roads of District No. 1. J. W. Brock, Palo Pinto, is County Clk. James C. Travilla, Mineral Wells, Tex., is Engr.-in-Charge.

+**Pueblo, Colo.**—(Official)—The City Council has awarded the contract for repairing the First St. Bridge over the Fountain River, to the PUEBLO BRIDGE CO., Pueblo. John M. Jackson is City Clk. Noted Jan. 14.

Kooskia, Idaho—It is reported that the Commissioners of Idaho County, Grangeville, are considering an appropriation of $18,000. This sum will be used for building a bridge over the Middle Fork of the Clearwater River near Kooskia.

Mounds, Utah—E. R. Morgan, Salt Lake City, State Road Engr., has recommended to the State Board of Examiners the building of a steel bridge, to cost about $5700, over the Price River at Mounds, Emery County.

Pima, Ariz.—It is reported that bids will be received until Feb. 1, by the Commissioners of Graham County, Solomonsville, for the construction of a bridge over the Gila River, one mile from Pima. The bridge will be 425 ft. long with a 16-ft. roadway, and approaches of 100 and 150 ft. Benjamin Blake is County Clk.

Mayfield, Wash.—Plans have been completed by John S. Ward, Engr. of Lewis County, Chehalis, for a new steel bridge over the Cowlitz River at Mayfield. The estimated cost is $30,000. The bridge will be 200 ft. long, and about 100 ft. above the water level.

Seattle, Wash.—It is reported that the City Council contemplates holding a special election Mar. 2, and submitting to the voters the question of building bridges over Lake Washington Canal. The previous issue of bonds for this purpose has recently been declared invalid by the Supreme Court of Washington. Noted Dec. 3 and 10, 1914, Jan. 7 and 21, 1915.

Bakersfield, Calif.—The lowest bid received by the Board of Supervisors of Kern County for the construction of pile bridges, culverts, reinforced-concrete headwalls, etc., on the Bakersfield-McKittrick Rd., was that of Castro & Blaisdell, Bakersfield, at $12,987.

Red Bluff, Calif.—Plans have been prepared for the construction of three bridges on the route of the state highway leading from Red Bluff to the Shasta County line. The bridges will span Dibble, Blue Tent and Return Creeks, and the total cost will be about $16,000. Bids for their construction will not be asked until work is begun on this section of the highway.

Redwood City, Calif.—Bids will be received until Feb. 1, by the Board of Supervisors of San Mateo County, for the construction of a timber trestle over Tobin Creek on the Colma-Edgemar Rd. James V. Neuman is County Surv.

+**Sacramento, Calif.**—(Official)—The Board of Supervisors of Sacramento County has awarded the contract for the construction of a reinforced-concrete bridge on the Orangevale-Folsom Rd. to the W. N. CONCANNON CO., Underwood Bldg., San Francisco, Calif., at $5800. Noted Dec. 31.

WATER SUPPLY—IRRIGATION

Boston, Mass.—Bids will be received until Jan. 30, by the Public Works Department, for 825 tons of iron castings for the water- and sewer-systems. L. K. Rourke is Comr. Noted Jan. 14.

Indiana, Penn.—(Official)—Plans are being prepared by Robert H. Wilson, Saltsburg, Penn., for the improvement of the water-system for the Clymer Water Co. The work will include additional apparatus for softening, improvements to the filtration plant and new buildings. Noted Jan. 21.

Lynchburg, Va.—A resolution has been adopted by the Council providing for the purchase of an additional pump for the water-system. An appropriation of $22,000 has been made. H. L. Shaner is City Engr.

Shepherdstown, W. Va.—According to press reports, R. C. Ringgoli, R. Stalnaker and W. Howard Hamilton have applied for a franchise for the installation of a water system.

+**Hartwell, Ga.**—(Official)—The contract for constructing water and sewer systems has been awarded to the J. B. McCRARY CO., Atlanta, at about $46,000. Noted Aug. 20 and Sept. 17.

Quitman, Ga.—Press reports state that there were 86 bidders for the construction of a water system and electric light plant. Bonds for $40,000 were voted for this purpose. Noted July 2 and Sept. 24.

New Smyrna, Fla.—On Jan. 12 the citizens voted bonds for $47,000, the proceeds of which will be used for the construction of a water system. Noted Oct. 8 and Nov. 26.

Bowling Green, Ky.—The city contemplates constructing a sedimentation basin. F. J. Nolan is City Clk.

Barberton, Ohio—The City Council contemplates issuing bonds for $17,000, the proceeds of which will be used for making extensions to the water system.

Bridgeport, Ohio—Bonds for $23,500 have been voted, according to press reports. The proceeds will be used for the installation of water and sewer systems.

Chillicothe, Ohio—H. M. Redd, City Engr., has been authorized to prepare plans for the installation of a municipal water system.

Columbus, Ohio—Bids will be received until Feb. 12, by the Director of Public Service, for 25 4-in., 300 6-in., 50 8-in., 10 12-in., 6 16-in. (horizontal) and 4 20-in. (vertical) valves.

+**Columbus, Ohio**—The contract for c.-i. pipe for the water-system has been awarded by the city to the AMERICAN CAST IRON PIPE CO., at $45,850.

Dayton, Ohio—Plans have been prepared by Pollard & Ellms, Cincinnati, for making extensions to the water system. The estimated cost is $580,500. Noted Aug. 13.

Euclid, Ohio—The citizens plan to spend $7000 for the construction of a water system.

Mingo, Ohio—An election will soon be held to vote on the question of issuing bonds for $39,000, the proceeds of which will be used for the purchase and improvement of the water-system.

+**New Boston, Ohio**—Contracts have been awarded to STANDARD SUPPLY CO., Portsmouth, at $16,468 for material and to PHILLIPS & WATKINS, at $7882 for labor, for completing the water system. Bids were opened Jan. 11. Thomas S. O'Neal is City Clk. Noted Dec. 31.

Shaker Heights, Ohio—(Cleveland post office)—Bids will be received until noon, Feb. 16, by Carl A. Palmer, Village Clk., First National Bank, Cleveland, for constructing an 8-in. water-main in South Moreland Blvd. Noted Dec. 31.

South Newburg, Ohio—(Newburg post office)—Bids will be received until noon, Feb. 6, by H. H. Bohning, Village Clk., for laying water mains in Granger and Turney Rd. Plans are on file with R. Hecker, Leader-News Bldg., Cleveland. Noted Dec. 31.

Wellington, Ohio—(Official)—The W. J. Sherman Co., Nasby Bldg., Toledo, Ohio, has been retained by the city of Wellington, to prepare plans for the improvement of the water-system and for the installation of a filtration plant.

Wooster, Ohio—The Council has authorized the expenditure of $125,000 for the construction of a water-system. Noted Dec. 3.

Michigan City, Ind.—Bids will soon be received, according to press reports, for the completion of the force main from the waterworks to Second and Wabash St. The Krehbiel Co., 140 S. Dearborn St., Chicago, Ill., is Engr. Noted June 4 and July 2.

Orion, Mich.—Press reports state that bids will be received until Feb. 15, by the city, for laying 27,000-ft. of c.-i. water pipe; two 8-in. wells, a pumping station, triplex pumps, belt driven motor and a 75,000-gal. steel tank on a 110-ft. tower. The estimated cost is $35,000. Patrick W. Keating, Detroit, is Consult. Engr. Noted Oct. 8.

Schoolcraft, Mich.—The citizens will soon vote on the question of issuing bonds for $22,000, the proceeds of which will be used for the construction of a water system.

✚Area, Ill.—(Official)—Contracts have been awarded to the CHICAGO BRIDGE & IRON CO., 105th and Troop St., Chicago, at $3285, for tank and tower; AMERICAN WELL WORKS, Aurora, at $880, for power pumping plant and to R. H. LUEBBE, Area, at $730, for pumping station. Bids were opened Jan. 4. Noted Dec. 17.

East Peoria, Ill.—(Peoria post office)—(Official)—Bids will be received by the Village Board until 7:30 p.m., Feb. 8, for constructing a water system, including a storage reservoir, tubular wells, pumping plant, and pumping station. Plans are on file with B. H. Reichelderfer, Village Clk., and Arthur Marshall Morgan, Harris Trust Bldg., Chicago. Noted July 30 and Aug. 13.

Ipava, Ill.—Bids will be received until 1 p.m., Feb. 5, by the Village Clerk, for making improvements and extensions to the water system. The Fuller Coult Co., Chemical Bldg., St. Louis, Mo., is Engr. Noted Jan. 14.

Lewistown, Ill.—Bids will be received until **Feb. 4** by the City Council, for installing a water-system. About 7115 ft. of class B, c.-i. pipe, 2100 lb. of special castings, gate valves, an 80,000-gal. steel tank, and a steam pump will be required.

Paris, Ill.—Fleming & Babbitt, Consult. Engr., Champaign, has been retained by the city, for the construction of a reservoir and a filtration plant. Bonds for $90,000 were voted by the citizens, the proceeds of which will be used for the water-works improvement. J. C. Riedel is City Clk. Noted Nov. 12.

✚Elliott, Iowa—The contract has been awarded to E. J. HECKEL, Kansas City, at $6002, for laying water mains.

Pella, Iowa—Bonds for $10,000 have been voted by the citizens, the proceeds of which will be used for the extension of the water system. A. C. Kuyper is City Clk.

Kinney, Minn.—Plans have been prepared and submitted to the Council for the construction of a new water-system.

Hutchinson, Kan.—The United Water, Gas & Electric Co. plans to build an addition to its plant and install a 600-hp. boiler. The estimated cost is about $15,000.

St. Paul, Neb.—The citizens contemplate spending $23,000 for the improvement of the municipal pumping station and for the construction of an electric-light plant.

Billings, Mont.—Bids will probably be received until Feb. 20, for constructing an extension to the water-system. The estimated cost is $110,000. Six mechanical filters and one reservoir will be constructed. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., is Engr. Noted Nov. 12, Dec. 10 and Jan. 14.

Glasgow, Mo.—The installation of a centrifugal pump, directly connected to an electric motor of 432,000 gal. per 24 hr. against a head of 50 ft., is contemplated by the city. R. L. Blacet is Waterworks Supt.

Rison, Ark.—A. C. Moore, Engr., Bartlett Bldg., Joplin, Mo., has prepared plans for the installation of a water-system and electric-light plant. The estimated cost is $40,000. A. B. Robertson, Rison, is in charge. Noted July 23.

Austin, Tex.—An appropriation of $10,000 has been made by the City Council for making extensions and improvements to the water system. M. C. Welborn is City Engr.

Coleman, Tex.—The citizens contemplate constructing a new reservoir. Jerry Lewis is Waterworks Supt.

Cuero, Tex.—The City Council has authorized the expenditure of $5000 for making improvements and extensions to the water-system.

Donna, Tex.—The irrigation system of La Donna Canal Co. has been purchased by the Donna Irrigation District. Improvements, estimated to cost $457,000, are contemplated. Noted Sept. 17.

✚Eagle Pass, Tex.—The contract for installing a pumping plant to irrigate about 7000 acres has been awarded to the HUMPHREY GAS PUMP CO., Syracuse, N. Y., at about $60,000, by the G. Bedell Moore estate. Alexander Potter, New York, N. Y., is Engr.

Temple, Tex.—The construction of a concrete dam and spillway over the Leon River at the pumping station is contemplated by the city. R. D. Morgan is City Engr. The estimated cost is $25,000.

Guthrie, Okla.—(Official)—At an election held Jan. 14, the question of issuing bonds for $50,000 was defeated by the citizens. The proceeds was to have been used for the extension of the municipal water system. J. E. Nissley is Mayor. Noted Jan. 7.

Oklahoma, Okla.—At an election held Jan. 15, the citizens defeated the bond issue for $240,000, the proceeds of which was to have been used for the construction of reservoirs for the water-supply. Guy V. McClure is City Engr. Noted Nov. 5 and Jan. 7.

✚Aguilar, Colo.—The contract for constructing a water-system has been awarded to O'BRIEN & SON CO., Denver, at $12,000.

✚Denver, Colo.—According to press reports the contract has been awarded to WILLIAM O'GARA and PHILLIPS CONSTRUCTION CO., at about $300,000, by the Union Water Co. for constructing a six-mile conduit.

Williams, Ariz.—The Williams Water & Electric Co., Trust & Savings Bldg., Los Angeles, Calif., plans to build a 250,000,000-gal. dam. The estimated cost is $75,000. B. R. Ells is Gen. Mgr.

Anacortes, Wash.—An election will be held Mar. 16, to vote on the question of issuing bonds for $350,000. The proceeds will be used for the purchase of the water-system and for making improvements. Noted Dec. 3.

Raymond, Wash.—An election will be held Jan. 30, to vote on the question of issuing $117,000 in bonds, the proceeds of which will be used to purchase the water-system of the Raymond Light & Water Co. About $22,000 will be spent for the improvement of the system. Noted Dec. 24.

Wenatchee, Wash.—The water users of the Highland canal system voted in favor of forming an irrigation district to include all the territory under the canal system. Conrad Rose is a Dir.

Echo, Ore.—Plans will soon be filed with State Engineer Lewis, Salem, for the construction of a reservoir and irrigation ditches in Umatilla County. The estimated cost is $250,000.

Pendleton, Ore.—The Western Land & Irrigation Co. has had surveys made for the construction of a reservoir in the Alkali Cañon and for a canal system. The estimated cost is $250,000. W. R. Hinkle is Engr.

Corning, Calif.—According to press reports bonds for $30,000 were voted by the citizens, the proceeds of which will be used for making extensions to the water and the sewer systems. E. L. Randall is City Clk. Noted Nov. 26.

Dunsmuir, Calif.—The California-Oregon Power Co. plans to lay about 5000 ft. of mains with service taps, specials and gate valves. The estimated cost is $10,000. H. S. Walther, Medford, Ore., is Gen. Supt.

Alexandria, Ont.—An expenditure of $5000 is contemplated for the improvement of the water plant.

Dunnville, Ont.—A by-law has been passed by the ratepayers authorizing the construction of a water system. The estimated cost is $12,000.

Hespeler, Ont.—A bond issue for $35,000 has been authorized by the ratepayers. The proceeds will be used for the construction of a stand pipe and reservoir for the water system.

Newmarket, Ont.—The Town Council plans to construct a water-system, estimated to cost $15,000. P. J. Anderson is Clk.

Victoria, B. C.—(A correction)—In the issue of Jan. 7, under the heading "Victoria, B. C.," it was stated that the city of Victoria had raised $130,000 to commence the Sooke Lake Water Project, with DuCane, Dutcher & Co., Consult. Engr. This was incorrect, the facts being that the Sooke Water System, which cost about $1,500,000, is nearly completed. Wynn Meredith, of the firm of Sanderson & Porter, is the Consult. Engr. of the city, and H. B. Ferguson, who is a partner of the firm of DuCane, Dutcher & Co., has merely been employed by the city for the past month as an expert witness in a lawsuit between the city and the contractors. In some way, several papers have misconstrued the position held by H. B. Ferguson, and have assumed wrongly that he has been appointed consulting engineer in lieu of Wynn Meredith. H. B. Ferguson is sure that Wynn Meredith's work has been most satisfactory to the city. This correction has been made at the request of H. B. Ferguson. Noted Jan. 7.

SEWERS

Boston, Mass.—Bids will be received until Jan. 29, by the Public Works Department, for constructing pipe sewers and drains in Marcella and Sheridan St., Roxbury District. L. K. Rourke is Comr.

Boston, Mass.—Bids will be received until Feb. 1, by the Public Works Department, for work at the Orleans St. outlet, East Boston District. L. K. Rourke is Comr.

Cambridge, Mass.—Bids will be received until Jan. 29, by the Engineering Department, for sewer brick, pipe, cement, broken stone and iron castings for the year 1915. Lewis M. Hastings is City Engr.

New Haven, Conn.—Bids will be received until Feb. 11, by Frederick L. Ford, City Engr., for constructing a storm water sewer in Edgewood Ave.

Buffalo, N. Y.—The City Council has authorized the construction of tile sewers in Leslie and Zenner St. Francis G. Ward is Dir. of Pub. Serv.

Kenmore, N. Y.—According to press reports plans have been approved by the State Board of Health for the installation of a sewer system. Matthew D. Young is Village Pres.

New York, N. Y.—(Borough of the Bronx)—(Official)—Bids will be received until 10:30 a.m., Feb. 2, by Douglas Mathewson, Pres., Borough of the Bronx, for constructing a sewer in Tyndall Ave.

New York, N. Y.—(Borough of the Bronx)—(Official)—Bids will be received until 10:30 a.m., Feb. 2, by Douglas Mathewson, Pres., Borough of the Bronx, for constructing sewers in Pennyfield Ave., Chaffee Ave. and Throgs Neck Blvd.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Feb. 10, by L. H. Pounds, Pres., Borough of Brooklyn, for constructing sewers in Prospect Pl., Nostrand Ave., Dean St., and Brooklyn Ave.; in Tompkins Ave., Fulton St., and in Brooklyn Ave.; in Macon St., Lewis Ave., Chauncey St., and in Troy Ave.

New York, N. Y.—(Borough of Richmond)—(Official)—All bids received Jan. 19, for constructing a sewer in 12th St., and a receiving basin on the north side of Richmond Terrace, have been rejected. The work will be readvertised. Noted Jan. 14.

Newark, N. J.—The Board of Street and Water Commissioners plans to lay 10-in. pipe sewers in Amsterdam, Niagara, Frankfort, Margaretta, Clifford and Lexington St. M. R. Sherrard is Ch. Engr.

✚★Paterson, N. J.—(Official)—The contract for constructing Section 18, central portion, of the Main Intercepting Sewer has been awarded to MASON, HILTON & CO., 17 Battery Pl., New York, N. Y., at $158,450. List of bidders noted Jan. 14.

Hagerstown, Md. — A Sewerage Commission will be appointed by the city to take charge of the installation of a sewage system. J. McPherson Scott is Mayor.

✚Hancock, Md.—The contract for constructing a sewer system has been awarded to W. H. ANGLE, Hagerstown, Md., at $8200. Alfred Quick is Engr.

Dayton, Va.—An election will be held Feb. 16 to vote on the question of issuing bonds for $24,500, the proceeds of which will be used for the installation of a sewer system.

Parkersburg, W. Va.—An election will be held Feb. 2 to vote on the question of issuing bonds for $200,000, the proceeds of which will be used for the construction of sewers. Allen C. Murdoch is Mayor.

Anderson, S. C.—The city contemplates issuing bonds for $25,000, the proceeds of which will be used for the construction of a sewer system. W. A. Sanders is City Engr.

✚Louisville, Ga.—The contract has been awarded to the MACON ENGINEERING & CONSTRUCTION CO., Macon, according to press reports, for making extensions to the sewer system.

New Smyrna, Fla.—At the January election the citizens voted in favor of issuing bonds for $12,000, the proceeds of which will be used for the construction of a sewer system. The estimated cost is $36,000, two-thirds of which will be paid by the property owners. The J. B. McCrary Co., Atlanta, Ga., is Engr. Noted Sept. 24.

Okolona, Miss.—Frank L. Wilcox, Chemical Bldg., St. Louis, Mo., has made a survey and completed a report for the installation of a sewer system. The estimated cost is $60,000. Noted Sept. 24.

Bridgeport, Ohio—See item under "Water Supply-Irrigation."

Cleveland, Ohio—(Official)—Bids will be received by the Commissioner of Purchases and Supplies, until noon, Feb. 4, for constructing sewers in various streets.

Indianapolis, Ind.—Press reports state that bids will be received by Charles A. Brown, Engr.-in-Charge of Sewers, until Feb. 15 for constructing a main sewer in East 10th St.

Winchester, Ind.—(Official)—Bids will be received by the Common Council until 8 p.m., Feb. 3, for the construction of a sewer.

Grand Rapids, Mich.—(Official)—Plans for a sewage-treatment works will be made to satisfy a court order. L. D. Cutcheon is Secy. and Gen. Mgr., Bd. Pub. Wks.

★Milwaukee, Wis.—(Official)—Bids will be received by the Sewerage Commission, City Hall, until 2 p.m., Feb. 24, for constructing intercepting sewers on both sides of the Milwaukee River in Milwaukee. For particulars see advertisement under "Contracts to Be Let."

Waupaca, Wis.—Press reports state that C. W. Nelson, City Engr., will award a contract early in the spring for the construction of one half mile of 8-in. vitrified pipe sewer.

Valley Falls, Kan.—Bids will be received by the City Clerk, until Feb. 1 for the construction of sewers and a sewage disposal plant. Woriey & Black, Kansas City, Mo., are Engrs.-in-Charge.

✚Carthage, Mo.—A contract for constructing a sewer in the eastern section of the city has been awarded to the PLUMMER-ADAMS CO., Springfield, at $17,352. Other bids were: J. Spandin, $19,044; V. E. Koch, Joplin, $18,267; P. J. McNearney, Carthage, $18,370; Ozark Engineering Co., $18,792, and J. A. Pringle, Topeka, $17,612. Noted Sept. 3.

Springfield, Mo.—(Official)—Bids will be received by S. R. Fisher, City Engr., until Feb. 2 for constructing about five miles of sewers. The approximate cost of the work is $55,000.

Springfield, Mo.—(Official)—A communication from S. R. Fisher, City Engr., states that the contract for constructing a sewer in the Eighth Ward will not be let for some time. The cost of this work will be $28,000 instead of $80,000 as noted in the issues of Nov. 12 and Jan. 14.

Afton, Okla.—At the election held Jan. 21, the citizens voted in favor of issuing $37,000 in bonds for constructing a sanitary and storm sewer system. The Benham Engineering Co., Oklahoma, Okla., is Consult. Engr. Noted Dec. 3 and Jan. 14.

Portland, Ore.—The following bids were received by the City Council, Jan. 14, for constructing the Willow St. extension of the East Stark St. trunk sewer, (a) reinforced-concrete pipe, (b) monolithic, (c) reinforced-concrete: Guthrie McDougall Co., (a) $163,234, (b) $181,769; Giebisch & Joplin, (a) $154,382, (b) $161,894; Montague-O'Reilly Co., (b) $162,450; James Kennedy, (a) $172,663; J. F. Shea, (a) $162,973, (c) $172,792; Oregon Independent Paving Co., (a) $160,461, (c) $165,853; William Lind, (a) $148,639, (c) $169,468. Noted Dec. 24.

Corning, Calif.—See item under "Water Supply—Irrigation."

✚Lincoln, Calif.—Press reports state that a contract for constructing a sewer system has been awarded by the City Trustees to FRANK McINTYRE, Stockton, Calif.

✚Los Angeles, Calif.—(Official)—The contract for constructing a reinforced-concrete sewage-disposal plant has been awarded to the LOS ANGELES PLANING MILL CO., 1800 Industrial St., Los Angeles, Calif., at $4237. Noted Nov. 12.

Kenora, Ont.—Press reports state that the City Council contemplates an expenditure of $500,000 for the construction of a sewer system and a sewage disposal plant. T. A. Murray, 186 King St., W., Ontario, Ont., is Engr.

Vernon, B. C.—Press reports state that the City Council contemplates enlarging the sewage disposal plant and constructing an under-drainage system. The estimated cost of the work is $100,000.

STREETS AND ROADS

Buffalo, N. Y.—Bids will be received by the Department of Public Works until Jan. 27 for paving Court Pl., Homer Ave., Churchill and other streets.

✚New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract for improving a number of streets has been awarded to the CRAWFORD CO., 52 Ninth St., New York, at about $65,626. Noted Jan. 7.

New York, N. Y.—(Borough of the Bronx)—(Official)—Bids will be received by Douglas Mathewson, Pres. Borough of Bronx, until 10:30 a.m., Feb. 2, for improving Jackson Ave., from 141st to 149th St., and Mosholu Ave.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by F. J. H. Kracke, Comr. of Bridges, until 2 p.m., Feb. 4, for repairing asphalt pavements on the Harlem River bridges.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by Marcus M. Marks, Pres. Borough of Manhattan, until 2 p.m., Feb. 4, for regulating and regrading 155th St., from Broadway to Riverside Drive, and for widening a section of Riverside Drive.

Bridgeton, N. J.—The Commissioners of Cumberland County voted in favor of issuing $24,000 in bonds to build a state road through Vineland to the Atlantic County line and another from Millville to the Mauricetown Bridge to connect with a road in Cape May County.

Deal, N. J.—Press reports state that all bids received Jan. 4 for paving Norwood Ave. with amesite were rejected.

Beaver, Penn.—(Official)—Bids will be received by Philip H. Stevenson, Borough Secy., until 7:30 p.m., Feb. 9, for paving a section of Canal St.

Greenville, Penn.—(Official)—Bids will be received by J. M. Hittle, Borough Secy., until 7 p.m., Feb. 8, for paving College Ave., from Main St. to Packard Ave., and Columbia Ave., from Main St. to East Ave.

✚Philadelphia, Penn.—A contract for resurfacing asphalt streets during the year 1915 has been awarded to the EASTERN PAVING CO., Baxter Blk., Philadelphia.

Yardley, Penn.—The State Highway Commission has commenced surveys for an improved highway along the Delaware River from Yardley to Kintnersville. It will be about 35-miles, passing through New Hope.

Baltimore, Md.—Bids will be received by the Board of Awards, City Hall, until Feb. 3, for grading, curbing and paving a number of streets with sheet asphalt, vitrified and granite block.

Raleigh, N. C.—Press reports state that East Martin St. from Fayetteville to Blount St. will be paved with asphalt.

Wilmington, N. C.—Press reports state that the City Council and County Commissioners voted in favor of issuing $150,000 in bonds for improving roads.

Columbia, S. C.—Press reports state that bonds for $60,000 have been sold, the proceeds of which will be used for paving streets and roads.

West Palm Beach, Fla.—Press reports state that the City Council rejected all bids that were received Jan. 5 for macadamizing 40,000 sq.yd. and surfacing 30,000 sq.yd. J. B. McCrary Co., Atlanta, Ga., is Engr.

✚Tuskegee, Ala.—A contract for constructing about 10,000 lin.ft. of curb and gutter has been awarded to W. C. CAMPBELL, Columbus, Ga., at 49c. per lin.ft.

Mansfield, La.—(Official)—Bids will be received until noon, Feb. 2, for paving 4½ miles of sidewalks with concrete. L. E. Colvin is Clk. of the Town Council.

Carlisle, Ky.—The citizens of Nicholas County will vote at an election to be held Mar. 27, on the question of issuing $125,000 in bonds. The proceeds of these bonds will be used for constructing and improving roads.

Greenup, Ky.—At the election held Jan. 19, the citizens of Greenup County voted in favor of issuing $200,000 in bonds for constructing roads. Noted Dec. 24.

Louisville, Ky.—Bids will be received by the Board of Public Works until Feb. 3 for paving a number of streets with bituminous concrete. The estimated cost of the work is $36,000.

Mt. Vernon, Ky.—According to press reports the Commissioners of Rockcastle County contemplate issuing $100,000 in bonds for constructing roads. Noted Nov. 26.

Cincinnati, Ohio—(Official)—Bids will be received by Philip Fosdick, Dir. Pub. Ser., until noon, Feb. 2, for constructing concrete sidewalks in Districts No. 1, 2, 3 and 4 for the year 1915.

✚Cincinnati, Ohio—(Official)—The contract for improving a section of Harrison Ave. has been awarded to BREHM BROS., Cincinnati, at $87,797. Noted Dec. 31.

Cleveland, Ohio—Bids will be received by the Commissioner of Purchases and Supplies, until noon, Feb. 4, for furnishing, laying, relaying and repairing stone and concrete sidewalks.

Norwalk, Ohio—(Official)—Bids will be received by A. W. Carpenter, Dir. Pub. Ser., until noon, Feb. 4, for improving Corwin St.

Sandusky, Ohio—Press reports state that plans have been prepared by Edward Wagner, City Engr., for paving Polk St. The estimated cost of the work is $8000.

Shaker Heights, Ohio—(Cleveland post office)—(Official)—Bids will be received by Carl L. Palmer, Village Clk., 2847 Broxton Rd., Shaker Heights, until noon, Feb. 16, for the improvement of a section of the South Moreland Blvd.

Evansville, Ind.—(Official)—Bids will be received by the Commissioners of Vanderburgh County until 10 a.m., Feb. 11, for constructing a road in Perry Township. C. P. Beard is County Audr.

✚New Albany, Ind.—The contract for improving Silver St., from Market St. to Charlestown Rd., has been awarded to M. S. DAVIDSON, Louisville, Ky., at $8091. Other bids were: W. F. Woodruff, Louisville, $9050 and the Southern Asphaltaline Co., $8725.

Benton Harbor, Mich.—Bids will be received by B. Spaulding, City Clk., until Feb. 15, for paving Columbus Ave. with brick. A. R. Wightman is City Engr.

Grand Rapids, Mich.—Bonds for $100,000 were sold Jan. 8, the proceeds of which will be used for constructing and improving roads.

Oakland, Ill.—(Official)—Bids will be received until 1:30 p.m., Feb. 2, for constructing pavements in the Washington District. C. L. James, Mattoon, Ill., is Engr.

Merrill, Wis.—Press reports state that the City Council contemplates paving East Main St., from Mill to Stuyvesant St., with brick.

★Emmetsburg, Iowa—(Official)—Bids will be received by the City Clerk, until 2 p.m., Feb. 15, for constructing approximately 40,000 sq.yd. of pavement. For particulars see advertisement under "Contracts to Be Let."

Le Mars, Iowa—Press reports state that bids will be received by the City Clerk, until Feb. 2, for paving South Main St.

+Manchester, Iowa—A contract for paving 10,000 sq.yd. with asphaltic concrete has been awarded to the FORD PAVING CO., Cedar Rapids, Iowa, at $1.65 per sq.yd.

Sioux City, Iowa—Press reports state that the Commissioners of Woodbury County plan to pave 20 miles of road. The estimated cost of the work is $200,000.

+Duluth, Minn.—A contract for constructing five miles of the Agnew Rd. has been awarded by the Board of Commissioners of St. Louis County to C. W. ROOD CONSTRUCTION CO., Grand Rapids, Wis., at $8895.

St. Cloud, Minn.—Press reports state that the City Council contemplates resurfacing St. Germain St. and Fifth Ave., also paving Ninth and Breckenridge Ave.

+St. Paul, Minn.—The contract for grading Juno St. from Edgecumbe Rd. to Hamline Ave. has been awarded to KEOUGH BROS.

Pecos, Tex.—Press reports state that the Reeves County Commissioners' Court will receive bids until Feb. 3 for constructing roads in District No. 1.

Sherman, Tex.—According to press reports the citizens of Grayson County Road District No. 3 will vote, Feb. 20, on the question of issuing $10,000 in bonds for constructing roads.

Wichita Falls, Tex.—At a recent election, the people voted in favor of issuing $45,000 in bonds for paving a number of streets.

Kalama, Wash.—(Official)—Bids will be received by the Commissioners of Cowlitz County, until 2 p.m., Feb. 2, for the improvement of 5300 lin.ft. of the Lewis River Rd. B. O. Olson is Clk. of Bd.

Prosser, Wash.—(Official)—Bids will be received by the Board of Commissioners of Benton County, until 2.30 p.m., Feb. 2, for improving the Kennewick-Finley Rd. L. L. Lynn is County Audr.

Seattle, Wash.—According to press reports, the Board of Public Works has approved plans for paving Utah St., at an estimated cost of $186,000. Bids will soon be opened.

+East San Diego, Calif.—A contract for improving Sisson and other streets has been awarded to OLAF NELSON at $32,734.

+Los Angeles, Calif.—The contract for improving Dacotah St. from Venice to Hollenbeck Ave., has been awarded to F. W. WHITTIER, at $7663.

Hull, Que.—Press reports state that the City Council contemplates constructing asphalt macadam pavements. J. A. Laforest is Engr.

INDUSTRIAL WORKS

+Rutland, Vt.—The Howe Scale Co. has awarded a contract to the BERLIN CONSTRUCTION CO., for reconstructing its foundry, which was recently destroyed by fire.

Framingham, Mass.—The New England Hat Co. will construct a plant to cost $50,000.

+Worcester, Mass.—The contract for the construction of a three-story, 50x120-ft. addition to the plant of the Mills Woven Cartridge Belt Co., on Webster St., has been awarded to the E. J. CROSS CO., 82 Foster St. Noted Dec. 31.

+Bridgeport, Conn.—The contract for the construction of a four-story, 90x134-ft. addition to the plant of the Bridgeport Brass Co., on East Main St., has been awarded to the ABERTHAW CONSTRUCTION CO., 8 Beacon St., Boston, Mass. Fletcher-Thompson, Inc., 1089 Broad St., Bridgeport, has prepared plans.

New Haven, Conn.—The National Folding Box & Paper Co., Alton and James St., has had preliminary plans prepared for the construction of a five-story, 100x350-ft. factory.

Buffalo, N. Y.—(Correction)—The United States Rubber Reclaiming Co., Babcock and Hannah St., will repair its plant recently damaged by fire, with a loss of $75,000. Noted Jan. 14.

+New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract for the construction of an addition to the plant of the Doehler Die Casting Co., 187 Ninth St., has been awarded to the TURNER CONSTRUCTION CO., 11 Broadway, New York.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by John P. Boyland, Arch., 2526 Webster Ave., for the construction of a six-story, 50x100-ft. warehouse on East 91st St., near Avenue A, for William F. Cunningham, 438 East 91st St. Estimated cost is $50,000.

New York, N. Y.—(Borough of Manhattan)—Frederick H. Gleason has purchased a site on East 56th St., between Third and Lexington Ave., for the construction of a five-story garage. The estimated cost is $100,000.

Poughkeepsie, N. Y.—The Best Made Garment Co. plans to construct a two-story factory on Rose St. The estimated cost is $25,000. Homer J. Bloomer is Pres.

Jersey City, N. J.—Bids are being received by David M. Ach, Arch., 1 Madison Ave., New York, N. Y., for the construction of a five-story, 60x204-ft. plant for the Nagle Packing Co. The estimated cost is $100,000. Noted July 2.

Philadelphia, Penn.—The S. J. Cresswell Iron Works, 23d and Cherry St., contemplates the construction of a three-story addition to its plant.

Philadelphia, Penn.—The Pennsylvania Warehousing & Safe Deposit Co., 113 South Third St., will construct an eight-story, 75x135-ft. reinforced-concrete and brick warehouse at Delaware Ave. and Pine St.

Pittsburgh, Penn.—The P. H. Butler Co., 1203 Liberty Ave., plans to build a warehouse at 17th and Pike St.

Scranton, Penn.—Bids are being received by Albert J. Ward, Arch., Republican Bldg., for the construction of a two-story, 60x300-ft. factory for the Motor Kart Co. Estimated cost, $50,000. G. C. Wolf, Hotel Jermyn, is Pres. Noted Nov. 26.

Waynesboro, Penn.—The Landis Tool Co. plans to construct a two-story, 100x100-ft. addition to its machine shop and a one-story, 40x60-ft. addition to its foundry.

+Roanoke, Va.—Contracts for the construction of a four-story, 50x90-ft. plant, for the Hammond Printing & Lithographing Works, have been awarded to A. L. MARSHALL, Heins Cigar Bldg., general contract; VIRGINIA BRIDGE & IRON CO., structural steel. C. H. Hinnant, Strickland Bldg., is Arch. Noted Dec. 31.

+Lexington, N. C.—The contract for the enlarging of the Erlanger Cotton Mills has been awarded to W. LEE HARBIN, Lexington. The estimated cost is $500,000. J. M. Gamewell is Supt. Noted Apr. 23.

Macon, Ga.—The Neuhoff Abattoir & Packing Co., Nashville, Tenn., will construct a packing and cold-storage plant. The estimated cost is $75,000.

New Orleans, La.—The Louisiana Ry. & Navigation Co. plans to construct a grain elevator at Willow Landing. Estimated cost, $250,000. William Edenborn, Hibernia Bank Bldg., New Orleans, is Pres.

New Orleans, La.—Vaccaro Bros. & Co. has purchased a site for the construction of a plant for cooling fruit cars. The estimated cost is $100,000.

+Chattanooga, Tenn.—The contract for the construction of a plant for the Chattanooga Stamping & Enameling Co., recently incorporated with a capital of $200,000, has been awarded to MARK K. WILSON. Estimated cost, $100,000. Noted Dec. 17 and 24.

+Nonconnah, Tenn.—(Memphis post office)—(Official)—The Illinois Central R.R. has awarded a contract to the RAILWAYS ICE CO., Chicago, Ill., for constructing an ice plant at the Nonconnah yards. Noted under Memphis, Dec. 31.

Henderson, Ky.—The Falls City Box & Basket Co., Louisville, has had plans prepared by Brinton B. Davis, Arch., for the construction of a two-story factory at 21st St. and Magnolia Ave. The estimated cost is $50,000.

+Louisville, Ky.—The contract for the construction of a three-story, 80x210-ft. bakery, for the Grocers' Biscuit Co., 654 South Seventh St., has been awarded to the PARADISE CONSTRUCTION CO. Estimated cost, $40,000. Loomis & Hartmann is Arch. Noted Oct. 8.

Toledo, Ohio—M. Stophlet, Arch., 608 Nasby Bldg., is preparing plans for the construction of a storage warehouse. The estimated cost is $60,000.

Vincennes, Ind.—J. W. Dyer, 107 South Third St., will construct a two-story, 100x100-ft. garage, at Fourth and Busseron St., to be occupied by the Maxwell Motor Car Co. Estimated cost, $12,000.

Chicago, Ill.—Plans are being prepared by Chatten & Hammond, Archs., 64 East Van Buren St., for the construction of a 100x125-ft. factory at 1353 Fulton St., for the Chicago Slate Co. The estimated cost is $15,000.

Chicago, Ill.—L. G. Hallberg, Arch., 19 South La Salle St., has prepared plans for the construction of a six-story addition at 1828 Diversey Blvd., for the Stewart & Clark Mfg. Co. The estimated cost is $75,000.

Green Bay, Wis.—Carr & Walsh, Arch. is preparing plans for the construction of a $40,000 factory for the Alart & McGuire Co. Bids will be received about Mar. 1.

Milwaukee, Wis.—Plans are being prepared by Herman W. Buemming, Arch., 521 Jackson St., for the construction of a three-story, 30x120-ft. warehouse and factory on Milwaukee St., for the C. B. Leidersdorf Tobacco Co., 270 Broadway. Estimated cost, $50,000.

Milwaukee, Wis.—Plans are being prepared by H. Esser, Arch., Camp Bldg., for the construction of a three-story, 40x120-ft. factory, for Seeboth Co., 111 Reed St. Estimated cost, $45,000.

Minneapolis, Minn.—S. H. Holstad & Co., Seventh St., will construct a warehouse at 601 Fourth St., N. It will be in two units, one of which will be four stories, 40x150 ft.

St. Paul, Minn.—The Northern Insulating Co. will construct a fireproof building on Wabash Ave., between Hampton and Raymond Ave. Estimated cost, $25,000.

Hutchinson, Kan.—The William Kelly Milling Co. plans the construction of a 40x60-ft. addition at Main St. and the Chicago, Rock Island & Pacific Ry. The estimated cost is $50,000.

Wichita, Kan.—Colcord & Carroll, Oklahoma, Okla., will construct a two-story refinery at Tenth and Water St. The estimated cost is $40,000.

Kansas City, Mo.—The Chicago & Alton R.R. plans to construct a grain elevator, to have a capacity of 500,000 bu., at East Bottom. The estimated cost is $150,000. H. T. Douglas, Jr., Chicago, Ill., is Ch. Engr.

+Galveston, Tex.—The contract for the construction of the 1,000,000-bu. grain elevator for the Southern Pacific Terminal Co., a subsidiary of the Southern Pacific Co., has been awarded to JAMES STEWART & CO., St. Louis, Mo. The estimated cost is $500,000. Noted Dec. 31.

Houston, Tex.—The Houston Ice & Brewing Co. will construct a two-story storage building at Franklin Ave. Estimated cost, $50,000.

Tulsa, Okla.—The Nichols Wire Co., Kansas City, Mo., will construct a 100x140-ft. fireproof warehouse. J. C. Letcher, Secy. of the Commercial Club, is interested.

Spokane, Wash.—The Inland Empire Paper Co. is contemplating the construction of a $200,000 sulphide plant at Spokane.

Medford, Ore.—F. S. Bromwell and A. Nibley, Salt Lake City, Utah, contemplate constructing a sugar beet factory, to cost about $500,000.

Portland, Ore.—The Coin Machine Mfg. Co. has purchased a three-acre site at East 17th and Alice St., for the construction of factories. The first building to be constructed will be a two-story fireproof factory, estimated to cost $50,000.

+San Francisco, Calif.—The contract for the construction of a two-story bakery at Bryant and 17th St., for the John Center Co., has been awarded to CHARLES W. GOMPERTZ, 503 Marshall St. Estimated cost $40,000. Noted Dec. 10.

Ottawa, Ont.—R. P. Sims, 10 Cathcart St., Montreal, Que., is preparing plans for the construction of a municipal abattoir. The estimated cost is $100,000.

+New Westminster, B. C.—The contract for the construction of the first unit of the warehouse for the Brackman-Ker Milling Co. has been awarded to LORD, BUCKLAND & DEAN. Noted Sept. 24 and Oct. 29.

FEDERAL GOVERNMENT WORK

Storehouse—Fort Constitution, N. H.—(New Castle post office)—Bids will be received by the Coast Defense Commander, Fort Constitution, until noon, Feb. 15, for constructing a storehouse.

+Locomotive Crane—Boston, Mass.—The contract has been awarded by the Bureau of Yards and Docks for furnishing one 15-ton locomotive crane at the Boston Navy Yard to the AMERICAN HOIST & DERRICK CO., St. Paul, Minn., at $5349. Noted Dec. 24 and Jan. 21.

+Dredging—Portchester, N. Y.—Bids will be received by Col. W. M. Black, Army Bldg., 39 Whitehall St., New York, N. Y., until noon, Feb. 23, for dredging in Portchester Harbor.

Repairs To Wharf—New York, N. Y.—(Borough of Brooklyn)—Bids will be received by the Quartermaster, Fort Hamilton, until noon, Feb. 20, for making repairs to the wharf at Fort Hamilton.

Repairing Vessel—New York, N. Y.—(Borough of Richmond)—Bids will be received by the Lighthouse Inspector, Tompkinsville, S. I., until 2 p.m., Feb. 9, for repairing, docking, cleaning and painting the U. S. lighthouse tender "John Rodgers."

+Dredging—Philadelphia, Penn.—The contract for dredging in the Delaware River, below Philadelphia, has been awarded to the AMERICAN DREDGING CO., Philadelphia, at $209,575.

★Boardwalk—Philadelphia, Penn.—Bids will be received until 2 p.m., Feb. 19, by the Lighthouse Inspector, Philadelphia, for constructing an elevated boardwalk at Bellevue Range Rear Lighthouse, Del.

Light Vessels—Washington, D. C.—Bids will be received by the Bureau of Light Houses, Dept. of Commerce, Washington, D. C., until 2 p.m., Feb. 24, for constructing and equipping two single steel, oil-engine propelled light vessels, Nos. 101 and 102.

Barracks and Officers' Quarters—Fort Myer, Va.—Bids will be received by the Quartermaster, until 11 a.m., Feb. 11, for constructing a quartermaster corps barracks and a three-set noncommissioned officers' quarters.

+Post Office—Kinston, N. C.—The contract for the construction of the post office at Kinston has been awarded to WESTCHESTER ENGINEERING CO., White Plains, N. Y., at $53,100. Noted Dec. 10 and Jan. 21.

★Jetty Construction—Savannah, Ga.—Bids will be received by Col. W. C. Langfitt, U. S. Engineer Office, Savannah, until noon, Feb. 24, for placing stone in jetty at Savannah Harbor.

★Lock Gates—Louisville, Ky.—Bids will be received by Maj. J. C. Oakes, U. S. Engineer Office, Louisville, until noon, Feb. 25, for furnishing and erecting three mitering lock gates of two leaves each, for Lock No. 41, Ohio River.

+Post Office—Middlesboro, Ky.—The contract for the construction of the post office at Middlesboro, has been awarded to JOHN G. UNKEFER & CO., Minerva, Ohio, at $62,480. Noted Nov. 12. and Jan. 7.

★Towboats—Cincinnati, Ohio — Bids will be received by Lieut.-Col. H. Jervey, U. S. Engineer Office, Cincinnati, until 2 p.m., Feb. 26, for constructing and delivering two steel sternwheel towboats, "Cayuga" and "Ottawa."

★Reconstructing Pier—Michigan City, Ind.—The following bids were received for reconstructing, with piles and timber, part of the East Pier in Michigan City. Burk, Smith & Nelson, Muskegon, Mich., $25,280; Greiling Bro. Co., Green Bay, Wis., $29,870; Robert A. Love & Son, Muskegon, Mich., $25,658; Great Lakes Dredge & Dock Co., Chicago, Ill., $27,614; Fitz Simons & Connell Dredge & Dock Co., Chicago, $29,584; Byrne Bros. Dredge & Engineering Co., Chicago, $36,928. Noted Dec. 24.

Hospital—Red Lake, Minn.—Bids will be received by Cato Sells, Comr., Indian Affairs, Washington, D. C., until 2 p.m., Feb. 15, for constructing a frame hospital at the Red Lake Agency.

Remodeling Building—St. Louis, Mo.—The following are the bids received for remodeling the Custom House: North St. Louis Building & Material Co., Mermod Jaccard Bldg., St. Louis, Mo., $25,772; Wharton Building & Supply Co., 2424 Oriole Ave., St. Louis, Mo., $26,457; Southern Construction Co., Overland, Mo., $27,795; General Construction Co., Milwaukee, Wis., $36,860; Duffmer & Stecker Construction Co., 722 Chestnut St., St. Louis, Mo., $37,500; Cudmore Construction Co., 722 Chestnut St., St. Louis, Mo., $38,949; Newport Contracting & Engineering Co., Newport News, Va., $39,271; Kremer & Voirol Construction Co., 810 Olive St., St. Louis, Mo., $40,664; Daniel Evans Construction Co., St. Louis, Mo., $42,665; Hiram Lloyd Building & Construction Co., Odd Fellows' Bldg., St. Louis, Mo., $43,167; V. E. Taylor, Huntington, W. Va., $43,950; Kellerman Construction Co., 510 Pine St., St. Louis, Mo., $46,920; Herman Construction Co., Title Guaranty Bldg., St. Louis, Mo., $47,475; E. A. Steininger, Victoria Bldg., St. Louis, Mo., $47,925; S. L. Jones Building Co., 717 Locust St., St. Louis, Mo., $54,580; Gellick Bros., St. Louis, Mo., $73,988. Noted Dec. 17.

★Motor Dredge Tender—Galveston, Tex. — Bids will be received until noon, Feb. 23, by Lieut.-Col. C. S. Riche, Trust Co. Bldg., Galveston, for constructing motor dredge tender "La Porte."

Post Office—Uvalde, Tex.—Bids were received as follows for the construction of a post office at Uvalde, (a) limestone; (b) sandstone: George Hinchliff & Co., Chicago, Ill., (a) $51,110, Reveron Construction Co., Uniontown, Ala., (a) $38,493; (b) $38,691; Dieter & Wenzel Construction Co., Wichita, Kan., (a) $54,587; W. R. Weston, San Antonio, Tex., (a) $52,332; (b) $53,300. Noted Dec. 17.

+Post Office—El Reno, Okla.—The contract for the construction of a post office at El Reno has been awarded to the GEORGE W. STILES CONSTRUCTION CO., Rookery Bldg., Chicago, Ill., at $66,126. Noted Oct. 22 and Dec. 3.

Canal Work—Payson City, Utah—Bids will be received by the U. S. Reclamation Service, Provo, Utah, until 2 p.m., Feb. 3, for the construction of the High Line Canal, Division Four, and appurtenant structures, Strawberry Valley Project, Utah. The work involves about 155,000 cu.yd. of excavation for canals; 2600 cu.yd. of excavation for structures; 1250 cu.yd. of reinforced-concrete; 467,000 sq.ft. of concrete canal lining. It is located near Payson City, Utah County, Utah, on the San Pedro, Los Angeles & Salt Lake R.R. and the Tintic Branch of the Denver & Rio Grande R.R.

★Canal Work—Payson City, Utah—Bids will be received by the U. S. Reclamation Service, Provo, Utah, until 2 p.m., Feb. 24, for the construction, involving 49,000 yd. of canal excavation and 3670 yd. of reinforced concrete. For particulars see advertisement under "Contracts To Be Let."

Cofferdam—Seattle, Wash.—Bids will be received by Maj. J. B. Cavanaugh, Burke Bldg., Seattle, until noon, Feb. 17, for excavating and removing an existing cofferdam and constructing a new cofferdam at the Puget Sound-Lake Washington lock site, Seattle.

★Jetty Construction—Lone Tree, Wash.—Bids will be received by Maj. J. B. Cavanaugh, Burke Bldg., Seattle, Wash., until noon, Feb. 10, for delivering stone for jetty construction at Lone Tree.

Bungalows—Mare Island, Calif.—(Vallejo post office)—Bids will be received by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a.m., Feb. 20, for constructing two bungalows at Mare Island. H. R. Stanford is Chief, Bureau of Yards and Docks.

+Dredging—Oakland, Calif.—Contracts for dredging in Oakland Harbor, have been awarded to THOMAS CARLIN SONS CO., Pittsburgh, Penn., at $3530 and R. A. PERRY, Oakland, Calif., at $45,520. Noted Dec. 12.

Foundations—San Diego, Calif.—Bids will be received by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a.m., Feb. 27, for the construction of nine foundations for radio towers at Chollas Heights, San Diego, three at Pearl Harbor, H. T., and three at Cavite, P. I.

Foundations—Pearl Harbor, H. T.—See item under San Diego, Calif.

Locomotive Cranes—Pearl Harbor, H. T.—Bids were received for furnishing and erecting two 15-ton locomotive cranes at the Naval Station, Pearl Harbor, Hawaii, as follows: Brown Hoisting Machinery Co., Cleveland, Ohio, $16,750; Industrial Works, Bay City, Mich., $17,385; American Hoist & Derrick Co., St. Paul, Minn., $18,785, alternate, $14,385; Link-Belt Co., Chicago, Ill., $17,336; Browning Engineering Co., Cleveland, Ohio, $15,910. Noted Dec. 24.

Structural Steel—Panama—Bids were received Jan. 23 by Maj. F. C. Boggs, General Purchasing Officer, the Panama Canal, Washington, D. C., for furnishing the structural steel framing and accessory parts for a steel and concrete deck for Pier No. 7, forming a part of the Atlantic Terminal Piers of the Panama R.R. The work included: 10,755,000 lb. structural steel for pedestals, including anchor bolts and nuts; erecting bolts, etc., exclusive of pedestals; 245,000 lb. structural steel for pedestals, including anchor bolts and nuts; 4300 lb. steel crossties; 57,200 lb. soft-steel forgings for rail chairs; 208,500 lb. open-hearth steel rails, tie-rods, and low-carbon steel splice bars; 13,900 lb. soft-steel castings for gratings; 24,600 lb. standard wrought-iron or steel pipe, black; 36,250 lb. gray iron castings for mooring bitts; 34,000 lb. drift pins, bolts, nuts and washers for securing wooden fenders and mooring bitts and two Ellis patent freight car bumping posts: Bids were asked as follows: (A) Material fabricated and delivered at Colon, (A1) same, cost of carriage from New York to Colon, being paid by the Government; (B) Material fabricated, delivered and erected on foundations furnished by the Panama Canal; (B1) same, cost of carriage New York to Colon being paid by the Government. Bids were as follows: McClintic-Marshall Construction Co., Pittsburgh, Penn., $261,251; (A1) $208,883; (B) $310,508; (B1) $258,141. J. B. Kendal Co., Washington, D. C. (for Jones & Laughlin Co.), (A1) $224,161. Riter-Conley Co., Leetsdale, Penn., (A1) $204,029. Pennsylvania Steel Co., Steelton, Penn., (A) $233,032; (A1) $185,241. United States Steel Products Export Co., 30 Church St., New York, N. Y., (A) $225,254; (B) $258,437.

Foundations—Phillipine Islands—See item under San Diego, Calif.

MISCELLANEOUS

Station Improvements—Boston, Mass.—Bids will be received until Jan. 28 by the Transit Commission, 15 Beacon St., for furnishing and laying 4100 sq.yd. of concrete platform in the Washington Station, Dorchester Tunnel. E. S. Davis is Ch. Engr.

+Dredging—New York, N. Y.—(Boroughs of Manhattan, Brooklyn, Queens, the Bronx and Richmond)—(Official)—The Commissioner of Docks has awarded the contract for dredging 80,000 cu.yd. in the East and Harlem Rivers to WILLIAM BEARD, at 18.7c. per cu.yd. The contract for dredging in the North River was awarded to MORRIS & CUMMINGS, at 11.83c. per cu.yd. Noted Jan. 14 and 21.

Roofing—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were received by the Department of Charities, Jan. 20, for roofing work on the children's hospital and schools, Randalls Island, as follows: Newman & Siegler, $10,595; M. D. Lundin, $10,778; Spuyten Duyvil Construction Co., $10,826; Neptune B. Smith, $10,883; Morris Krumholz, $11,500; J. Langner, $11,610; Anchor Corrugating Construction Co., Inc., $11,628. Noted Jan. 14.

Paving Supplies—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by Marcus M. Marks, Borough Pres., until 2 p.m., Feb. 1, for furnishing 12,000 bags of portland cement, 3500 tons of refined asphalt, 3000 tons of limestone dust, 8000 cu.yd. of binder stone, 1000 tons of portland cement. Specifications may be had at the offices of the Commissioner of Public Works, Room 2124, Municipal Bldg.

Dredging—Baltimore, Md.—(Official)—The following bids were received Jan. 20 by the Board of Awards for dredging the main channel from Lazaretto Light to the piers of the transatlantic liners: Coastwise Dredging Co., $142,400; Maryland Dredging & Contracting Co., $149,000; Morris & Cummings Dredging Co., $156,600; Sanford & Brooks Co., $165,225; American Dredging Co., $191,875; Atlantic, Gulf & Pacific Co., $214,600; P. Sanford Ross, Inc., $224,600. Noted Jan. 7.

Swimming Pool—Baltimore, Md.—Local press reports state that Frederick Olmsted, Boston, Mass., has been commissioned to prepare plans for the conversion of Mt. Royal Reservoir, in Druid Hill Park, into a swimming pool.

Crushing, Elevating and Screening Machinery—Petersburg, Va.—The Wakefield Granite Quarries, A. B. Cook, Pres., will receive bids for repairing No. 2 Climax crusher, for furnishing elevating and screening machinery and for installing a gravel and stone-washing plant.

Motor Fire Apparatus—Newbern, N. C.—F. T. Patterson, City Clk., will receive bids until Feb. 1 for furnishing the city with a triple combination, motor-driven fire engine, having not less than 800 gal. per min. capacity.

Drainage—Parish, Fla.—The Drainage Committee has engaged Charles S. Hill, Engr., Palmetto, Fla., to make a survey for the construction of the Gamble Creek drain. This will result in the reclamation of about 30,000 acres. The estimated cost is $100,000.

Seawall—West Palm Beach, Fla.—The Council has rejected all bids received on Jan. 5, for the construction of the proposed seawall. The work will be readvertised. L. T. Lockwood is Pres. of the Council. J. B. McCrary Co., Atlanta, Ga., are Engrs. Noted Oct. 8 and Dec. 24.

Drainage—Oberlin, La.—The Oberlin Drainage District No. 3, S. J. Iles, Pres., plans to construct a canal into the Bayou Blue, draining the marshes north and east of Oberlin and the swamp to the south.

Dump Cars, Locomotives and Derrick—Cincinnati, Ohio—Thaw & Williams, Bell Blk., will receive bids for 30 six-yard, two-way, dump cars, 36-in. or standard gage; one stiff-leg, or guy derrick, 50-ft. boom; and four 18- to 20-ton saddle-tank locomotives, 36-in. or standard gage.

Levees and Flood Protection—Vincennes, Ind.—(Official)—A report will be made shortly on flood protection for the district south of Vincennes, comprising 60,000 acres. The report was completed about two years ago, but the flood of March, 1913, made it necessary to revise the plans and include new territory. The estimated cost of the project is $430,000. J. S. Spiker, Vincennes, is Engr.

Motor Police Patrol and Ambulance—Oshkosh, Wis.—Bids will be received until 2 p.m., Jan. 28, by R. A. Hollister, Chmn., Bd. Pub. Wks., for furnishing combination motor-driven ambulance and patrol. Bids will also be received for a motor service truck with ladders.

Drainage—Wapello, Iowa—According to press reports, bids will be received by the supervisors of Muscatine and Louisa Counties on Feb. 5 for the purchase of $278,127 drainage bonds.

+Ditch—Ada, Minn.—The following contracts have been awarded for the construction of Judicial Ditch No. 42: Excavating 470,000 cu.yd., UNION DRAINAGE CO., Stephen, Minn., at 9c. per cu.yd.; erecting 27 steel bridges, SECURITY BRIDGE CO., Minneapolis, at $1175 each; concrete culverts, M. R. HUSSEY, Crookston, at $336 each. C. D. Simpson is Dep. County Audr. Noted Dec. 24.

Ditch—Bemidji, Minn.—Bids will be received until Feb. 8 by J. L. George, County Audr., for the construction of Judicial Ditch No. 27, 30 miles in length. Specifications call for 231,182 cu.yd. of earth excavation and the construction of a highway. The estimated cost is $52,214.

Ditches—Jackson, Minn.—Press reports state that bids will be received until Feb. 3 by P. O. McKellar, County Audr., for the construction of Judicial Ditches 32, 33 and 36, all tile. They are estimated to cost $29,578, $54,002 and $5842, respectively.

Dock—St. Paul, Minn.—An ordinance has been introduced in the City Council providing for the construction of a municipal dock.

+★Drainage — Talmage, Neb. — (Official) — The following bids were received Jan. 11 for the construction of ditches in Drainage District No. 1, Johnson and Otoe Counties: FREDERICK M. CRANE, Omaha, Neb., $115,090 (awarded contract); R. B. Gordon & Co., Salina, Ohio, $125,502; Inter-Mountain Bridge & Construction Co., Tecumseh, Neb., $126,840; W. M. Lana, Council Bluffs, Iowa, $131,792; Edward Peterson Co., Omaha, Neb., $121,907; O. P. Herrick, Des Moines, Iowa, $136,212; Yale & Ragean, Chicago, Ill., $149,919; Sternberg Bros., Pine Bluff, Ark., $132,491; Munn-Raise Construction Co., Kansas City, Kan., $125,552; W. E. Callahan Construction Co., Omaha, Neb., $152,711; C. D. Campbell, Lincoln, Neb., $110,590; Winston Bros., Minneapolis, Minn., $147,918; D. C. Stephens, Buffalo, N. Y., $143,493. Schwaderer & Shannon is Engr. Noted Dec. 10.

Drainage District—Atchison, Kan.—A bond issue of $60,000 will soon be offered, the proceeds to be used in improving the Delaware River drainage district. The entire enterprise, which includes the straightening of the Delaware River south of Muscotah to the county line, will cost about $100,000.

★Drainage—Edina, Mo.—(Official)—Bids will be received until 11 a.m., Feb. 18, by the Supervisors of Fabius Drainage District No. 3, at the office of F. H. McCullough, Edina, for the construction of channels. The specifications call for 50[illegible]000 cu.yd. of channel excavation, divided into two sections. For details see advertisement under "Contracts to Be Let."

+Ditch—Maryville, Mo.—Press reports state that the Board of County Supervisors Jan. 8 awarded the contract for the construction of the Frayne, Stratford and Larson drainage ditches to JENS JENSEN, Williams, at $24,555. The contract for tile was awarded to the NATIONAL SEWER PIPE CO., Maryville, at $9033.

Mausoleum—St. Louis, Mo.—The Valhalla Mausoleum Co., 718 Boatmen's Bank Bldg., will construct a one-story granite mausoleum. The estimated cost is $240,000.

Grandstand—Little Rock, Ark.—The city contemplates the construction of a reinforced-concrete grandstand at the West End Park Athletic Field. The seating capacity will be 3000.

Dredging and Filling—Seattle, Wash.—The City Council has under consideration a petition for dredging Oxbow Bend of the Duwamish River and filling the lowland with the material excavated. The estimated cost is $30,000.

Cement—Seattle, Wash.—Bids will be received by the Port of Seattle Commission until Feb. 10 for furnishing 20,000 bbl. of portland cement. O. E. Remsberg is Secy.

+Drainage—Walla Walla, Wash.—The Commissioners of the Attalia Drainage District have awarded the contract for the construction of a system serving 2500 acres to JAMES C. BROAD, Spokane, at about $48,000. Noted Jan. 7.

Pier — Richmond, Calif. — The statement published in the issue of Jan. 21 was an error. All bids for the construction of the municipal wharf have been rejected. P. A. Haviland, Consult Engr., 310 Sansome St., San Francisco, will revise plans. A. C. Faris is City Clk.

Fire Station—San Francisco, Calif.—(Official)—Plans for the proposed fire station at Post and Polk St. have not been prepared yet, nor the architect chosen. The contract will not be let for about five months. Noted Jan. 14.

+Waterfront Improvements—San Francisco, Calif.—The Panama-Pacific International Exposition Co. has awarded a contract for the construction of a waterfront entrance on Webster St., to the WESTERN BUILDING & ENGINEERING CO., at $19,755.

+Pier—San Francisco, Calif.—The State Board of Harbor Commissioners has awarded a contract for the construction of pier No. 24, at the foot of Harrison St., to the HEALY-TIBBITTS CONSTRUCTION CO., at $98,300. Noted Jan. 7.

Elimination of Grade Crossings—Brantford, Ont.—(Official)—T. Harry Jones, City Engr., writes that work for the elimination of the grade crossing at St. Paul Ave. will include the construction of a subway, 42 ft. wide, and the approaches at St. Paul Ave. The estimated cost is $40,000. Application for apportionment of the cost has not been made yet. Noted Jan. 14.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

+Boston, Mass.—The contract for the construction of Police Station No. 19 has been awarded to JOHN BOWEN at $55,333.

+Boston, Mass.—(Official)—The contract for the construction of a six-story, 92x154-ft. fireproof building on School St. has been awarded to the NATIONAL FIRE PROOFING CO., 120 Franklin St. C. Howard Walker is Arch.

Holyoke, Mass.—Plans are being prepared by G. P. Alderman & Co. for the construction of the Lawrence School. It will be two stories, 180x260 ft. Estimated cost, $225,000. Francis McSherry is Supt. of Schools.

+Plymouth, Mass.—The contract for the construction of a three-story, 48x116-ft. theater, for Arthur Emond, has been awarded to PAYSON & CONNOLLY. Estimated cost $40,000. R. T. C. Jackson, 29 Oak St., Boston, is Arch.

+New Britain, Conn.—(Official)—The contract for the construction of a two-story high school has been awarded to THOMAS W. CROWE, at $105,401. Walter P. Crabtree is Arch. Noted Jan. 14.

+Waterbury, Conn.—(Official)—The contract for the construction of a two-story, 87x120-ft. school has been awarded to the GEORGE S. CHATFIELD CO., Canal St., at $67,537. Louis A. Walsh is Arch.

Albany, N. Y.—The State of New York contemplates the construction of an 11-story, 80x200-ft. office building for the state department. The estimated cost is $1,250,000. Lewis F. Pilcher is State Arch.

★Binghamton, N. Y.—(Official)—Bids were received Jan. 21 by the State Hospital Commission, Capitol, Albany, for the construction of a building for chronic patients at the Binghamton State Hospital, as follows: William F. Fulton, Buffalo, N. Y., $168,987; George B. Long, Worcester, Mass., $161,800; Emerson Building Co., New York, N. Y., $164,500; R. T. Ford Co., Rochester, N. Y., $171,372; Durolithic Co., Buffalo, N. Y., $159,700; Lathrop, Shea & Henwood Co., Scranton, Penn., $178,395; Dekimpe Construction Co., Hoboken, N. J., $174,600; Maurice Mead, Albany, N. Y., $207,000; Oscawana Building Co., New York, N. Y., $169,970; Peter Keeler Building Co., Albany, N. Y., $181,322; J. F. Growe Construction Co., Albany, N. Y., $176,975; Carleton Co., Inc., New York, N. Y., $179,525; Aroldo Barbaresi, Mt. Vernon, N. Y., $171,932; A. E. Stephens Co., New York, N. Y., $172,000; Feeney & Sheehan Building Co., Albany, N. Y., $180,000; O'Brien Construction Co., Syracuse, N. Y., $192,244. Lewis M. Farrington is Asst. Secy., Comn. Noted Jan. 7.

Buffalo, N. Y.—The City of Buffalo has approved plans prepared by the Lehigh Valley R.R. for the construction of terminals at Main and Scott St.; also for freight terminals, viaducts and approaches at Washington St. Bids will soon be received. Estimated cost is $5,000,000.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

PRICE CHANGES AND THE BUSINESS OUTLOOK

Conditions have steadily improved during the month, although not rapidly. No brisk increase in the volume of orders, or in the amount of business, was to be expected in the month, and it is doubtful if there will be any large increase until spring opens; but business is more than holding its own; some factories are reopening after being closed a long time. Contractors are finishing work, but there is a noticeable tendency to push forward some new projects, both on account of the low cost and the ability to do the work with dispatch.

Financial conditions have improved more than any other, and form the basis for an excellent business later on. Although capital is difficult to obtain, money is easy, and American bankers, for the first time in history, practically, are dealing in acceptances from foreign cities; doing a general foreign exchange business irrespective of London, and are also lending vast sums to foreign cities. This credit will be used to buy American goods. The heavy drain on the life insurance companies has been stopped, and a very appreciable amount is now available for investment.

Agricultural returns are highly satisfactory to the farmer, but prices for foodstuffs have gone to such levels as to be distinctly abnormal; in many cases burdensome to American consumers. The highly satisfactory way cotton is moving out of the country will clear up the problem of finance in the ten Southern States far more rapidly than was thought possible.

Railroads are looking forward to doing considerable work this coming year. Some construction work which was postponed on account of the war has been resumed; the railways in the Northwest will make numerous improvements and some of the Eastern roads have laid out a fair program of new construction which, while not large, is a beginning. The Pennsylvania has showed its intention to resume operations on several dormant projects. A 4½% bond issue by the Pennsylvania was eagerly sought by bankers. The security is undoubtedly of the highest grade, but that such security would find a welcome at all is to be remarked. The rate of interest is not unusual, considering the high prices paid for capital in recent years.

Dullness has characterized the iron trade, principally because December business in pig iron was so satisfactory. Mills are operating more actively, a fair amount of rail orders has been taken, and the tube mills have been in receipt of some very large orders. Steel prices continue on an attractive level, which induces new construction. Foreign demands, while large in point of dollars, have not been large from the standpoint of tonnage involved, but some rail orders for foreign delivery are already in sight, and there is no doubt that considerable business will be taken in this line before the end of the year.

Prices of metals have advanced rapidly, copper selling at 15c., compared with 11c. in August, due entirely to the foreign demand; lead is higher and spelter has advanced even more rapidly than copper. The outlook for metals is highly satisfactory, and there is no doubt that prices will be maintained at a fairly high level for some time, at least until the insistent foreign demand has subsided. The prices of most manufactured commodities are at low levels, and the cement situation is still unsatisfactory to the producer. In New York crushed stone is at a low level, rubber is cheaper than before in years, and lumber prices are lower.

Shipbuilding work is not at all active, but there is every prospect of an activity in this line which has not been seen before in this country for more than a generation.

Foreign orders are large and continue to increase. Buyers for foreign governments and domestic consumers in European countries are in New York in large numbers and buying freely. Much of their purchases partake of war supplies and food but there have also been inquiries for supplies which could scarcely be made in Great Britain or France, owing to the lack of labor available for such uses. This business will undoubtedly continue.

Orders for war materials are going forward at the rate of more than a million dollars daily. Every shop in the United States that wishes to, is manufacturing as much ammunition and guns as it is possible to make, and new additions are being rapidly constructed at the leading plants.

Machine tool buying in the last eight weeks has been larger than ever before. The country is practically cleaned out of lathes. Milling machines have been in excellent demand, and foreign buyers are now taking automatic machines and almost any kind of machinery that can be used on iron or steel. This business has been of the most profitable nature.

The determination on the part of steel manufacturers to secure more remunerative prices led to a peculiar advance on Feb. 1. The bace price, which included plates, bars, and shapes, was left unchanged at $1.10 for February delivery, but this will be advanced to $1.15 for March, and $1.20 for April.

CEMENT, LIME AND BRICK

Portland Cement—Leading makers of cement have not revised their quotations, as compared with last month, but some of the small dealers selling in the New York market are taking orders at $1.37 New York, compared with the usual quotation of $1.42 New York. Not much business has been taken, even at these figures. A fair increase and more railroad business is in sight than for some time. Western business is reported to be fairly satisfactory, but by no means so rosy as some recent statements would seem to indicate. The quotations that follow do not include the price of 40c. made for bags returned, but are for barrels of cement delivered at the points named, less the charge for the bags.

Chicago	$1.02	Boston	$1.66
Detroit,	1.14	Cleveland	1.23
Jersey City	0.94	Duluth	1.33
New York	1.02	Minneapolis	1.25
St. Paul	1.25	Pittsburgh	1.00

Brick—Prices are higher as a result of the unfavorable weather, which makes difficult handling. In New York, Hudson River common brick sell at $5.87½ to $6 per M.

Lime—Business continues quiet and prices are unchanged; 97c. per bbl. for state common, 200 lb. net; $1.37 for 300 lb. bbl.; $1.55 for 300 lb. finishing; $1.10 for 200 lb. finishing, and $1.72 for 350 lb.

Crushed Stone—It is difficult to name any price at which business may be taken for spring shipments. Some sellers are asking 85c. for stone delivered alongside of dock, New York.

IRON AND STEEL

Pig Iron—Business is dull, with only a few transactions of note. The tone of the market, however, is better now than for a few weeks past. Prices remain about the same for most grades, with slight concessions for large sized orders. Inquiries from abroad, particularly from Italy and France, indicate inability of consumers to get supplies from their usual sources. American producers have not been able to take advantage of the foreign demand because of the excessive freight charges, but expect to benefit indirectly. Furnaces are being asked to ship orders under contract anticipating the advance in freight rates. It is reported that recent inquiries from New Jersey consumers for 3200 tons have been closed. Chicago has had considerable increase of inquiries for gray and malleable foundry iron, and additional sales of low-grade iron are reported from the Birmingham district. Quotations for pig iron in lots of 100 tons or over at the points named are as follows: Cincinnati, Southern Foundry No. 2, $12.50 to $13; Northern Foundry No. 2, $14 to $14.50; Northern Foundry No. 3, $13.50 to $14. In New York iron is quoted as follows: No. 2X Northern Foundry, $14.25 to $14.50; No. 2 plain Northern Foundry, $14 to $14.50; No. 2 Southern Foundry, delivered tidewater, $14 to $14.25. In Birmingham, Southern Foundry No. 2 is $9.50 to $10. In Chicago, Northern Foundry No. 2 is $12.75 to $13.25. In Pittsburgh, bessemer iron is $14.55 and basic $13.45, including the 95c. freight from the valley to the Pittsburgh district.

Steel Rails—Orders for more than 325,000 tons of rails were placed with the mills in January and there are pending perhaps 400,000 tons. Foreign inquiries total approximately 100,000 tons, but American mills have little hope of getting this business on account of unfavorable freight rates. All of the railroads are buying more material, and those in the corn and wheat belt have a prospect of excellent business throughout the summer, although the gross earnings of railways continue to decrease. The Pennsylvania order for 10,000 tons may be characterized as a trial order. It is divided between the Steel Corporation, the Bethlehem Steel Co., the Pennsylvania Steel Co., the Cambria Co. and Lackawanna Co. Each of these makers will roll a thousand tons under the new specifications, and a thousand tons under the old specifications, and it is expected that the results obtained from these experiments will be taken as a guide for the award of the contract for 1915. This is assumed to be around 175,000 tons. An incident of the unfavorable freight situation is an inquiry from Portugal for approximately 30,000 tons, but, with a freight rate of $19 per ton, it is impossible to close any business. Quotations for standard lots of 1000 tons or over are unchanged, as follows: Standard sections of bessemer, $28; open hearth, $30; f.o.b. Pittsburgh, per net ton. Girder rails in 30-ft. lengths are $36.40 per gross ton, and in 60-ft. lengths, $38.40, both f.o.b. New York. Other quotations, f.o.b. Pittsburgh, for large lots, the prices being given in cents per pound, are as follows: Standard sections, 1.25c.; 25- to 35-lb. 1.15c.; 15 to 20 lb. 1.20c.; 12 to 14 lb. 1.25c.; 8 to 12 lb. 1.30c. Relaying rails, New York, are $19; Pittsburgh and Chicago are quoted at $23 to $24.

Structural Shapes—The volume of business during January was only a little more satisfactory to the mills than that booked in December, but February opens with quite a little work in prospect, some of it large work, which includes 20,000 tons for grade crossing elimination in Indianapolis, and about 13,000 tons for elevated railway extension in Brooklyn. There is also a building in Cleveland which will require 2000 tons, and a Camden structure calling for 1000 tons. Keen competition is the rule on all new structural contracts. The Standard Arcade in New York, 600 tons, went at a low figure. Prices were revised Feb. 1 and are $1 higher than last month as follows: I-beams, 3 to 15 in.; channels, 3 to 15 in.; angles 3 to 6 in.; and T's 3 in. and over, 1.15c. Pittsburgh. Other quotations include I-beams over 18 in., H-beams over 18 in., channels over 15 in., and angles over 4 in., 1.30c.; T's, 1.25c.; deck beams and bulb angles, 1.50c.; handrail T's, 1.95c. Cutting into specified lengths is charged at the following rates: Under 3 ft. to 2 ft. inclusive, 25c. per 100 lb.; 2 ft. to 1 ft. inclusive, 50c.; less than 1 ft. $1.55. No charge is made for cutting to specified lengths over 3 ft. In Chicago the base price is 1.29c., in Philadelphia, 1.25 to 1.30c., in New York, 1.26 to 1.31c., and in San Francisco, 2 to 2.05c.

Cast Iron Pipe—Business shows some improvement. There are many municipal lettings in prospect. Business may be said to be fairly active, and prices unusually low. The American Cast Iron Pipe & Foundry Co. was the low bidder, on 3600 tons of large pipe in Chicago at $22.95. Cities and private consumers on the Atlantic Seaboard have purchased freely, many of them, not only for 1915 requirements, but for next year. The following quotations are named on cast-iron pipe in dollars per net ton at the points named:

Birmingham, Ala., $19.50.
New York, N. Y., 6-in., $20 to $20.50.
Chicago, 4-in., $26; 6- to 12-in., $24; over 12-in., $23.
Cleveland, 4- to 20-in., $21.50; larger than 4-in., $21.
Gas pipe is held at $1 per ton higher in all markets.

Plates—The shipbuilding industry is looking up. The American-Hawaiian Steamship Co. has ordered two additional 10,000-ton steamers from the Maryland Steel Co. Each of these boats will require about 3500 tons of steel. The New York Shipbuilding Co. will build a steel barge for the Panama Canal, which will require about 500 tons, and one of the oil companies will build a tanker calling for 3000 tons of plates and 1000 tons of shapes. Those conversant with the situation express the view that the shipbuilding industry in the United States will show a decided improvement within the next few months. Prices for immediate delivery are unchanged at 1.10c. Pittsburgh, but for March shipments are 1.15c. and April shipments 1.20c. The base price of 1.10c. includes all sizes above ¼ in. In Philadelphia, plates are 1.25 to 1.30c., in New York, 1.26 to 1.31c. and in Chicago, 1.25 to 1.29c.

Pipe—Business shows considerable activity. This line is the one bright spot in the steel trade as far as domestic business is concerned. An order was recently placed for one thousand miles of line pipe. The smaller sizes are not in active demand. Discounts continue without change, being repeated from last month as follows:

	Black	Galvanized
¾- to 2-in. steel, butt welded	81%	72½%
2½- to 6-in. steel, lap welded	80%	72½%
7- to 12-in. steel, lap welded	77%	66½%

At these discounts, the net prices of pipe per foot, in large lots, at Pittsburgh are as follows:

	Cents			Cents	
Diameter	Black	Galvanized	Diameter	Black	Galvanized
¾-in.	2.20	3.15	5-in.	29.60	42.20
1-in	3.24	4.67	6-in.	38.40	54.60
1¼-in	4.38	6.30	7-in.	55.00	80.00
1½-in	5.25	7.55	8-in.	57.50	84.00
2-in.	7.05	10.15	9-in.	79.50	$1.16
2½-in.	11.70	16.70	10-in.	95.00	$1.38
3-in.	15.25	21.80	11-in.	$1.06	$1.55
4-in.	21.80	31.00	12-in.	$1.17	$1.70

Sheets—The rapid advance in spelter has caused some uneasiness about deliveries, but this chiefly concerns consumers in the Middle West. In the East, there is a sufficient supply for present needs. Operations at the mills are not so active as a month ago, being less than 60% of capacity.

The following quotations are for large lots of sheets in Pittsburgh, and small lots from store, New York.

	Cents per Pound			
	Large lots Pittsburgh		Warehouse delivery New York	
	Black	Galv.	Black	Galv
No. 10	1.55	1.90	....	....
No. 12	1.55	2.00	....	....
No. 14	1.60	2.00	....	....
No. 16	1.65	2.15	2.35	2.75
Nos. 18 and 20	1.70	2.30	2.40	2.90
Nos. 22 and 24	1.75	2.45	2.45	3.05
No. 26	1.80	2.60	2.50	3.20
No. 27	1.85	2.75	2.55	3.35
No. 28	1.90	2.90	2.60	3.50

Steel Shapes—While prices are without change, there is little doubt that somewhat higher figures will be demanded before the end of the month. This will be due to the advance at the mill anounced Feb. 1. In New York small lots are quoted as follows:

	Cents Per Pound
Refined iron:	
1 to 1⅞ in., round and square	1.85
1½ to 4 in. x ⅜ to 1 in	1.85
1½ to 4 in. x ¼ to 5/16 in	2.05
Norway bars	3.20
Burdens bar iron	3.15
Soft steel:	
¾ to 3 in., round and square	1.85
1 to 6 in. x ⅜ to 1 in	1.85
1 to 6 in. x ¼ and 5/16	2.00
Rods—⅝ and 11/16 in	1.95
Bands—1½ to 6x3/16 in. to No. 8	2.15
Beams and channels—3 to 15 in	1.90
Angles:	
3 in. x ¼ in. and larger	1.90
3 in. x 3/16 in. and ⅛ in	2.35
1½ to 2¾ in. x 3/16 in. and thicker	2.00
11½ to 2½ in. x ⅛ in	2.10
1 to 1¼ in. x 3/16 in	2.10
1 to 1¼ in. x ⅛ in	2.15
Tees:	
1½ to 2½x¼ in	2.05
1½ to 2½x3/16 in	2.15
3 in. and larger	1.95

Steel Sheet Piling—Business is not active, but prices are steady and firm at 1.55 to 1.60c. in Pittsburgh.

Freight Rates—The freight rates on finished steel products from the Pittsburgh district, including plates, structural shapes, merchant steel and iron bar, pipe fittings, plain and galvanized wire, nails, rivets spikes, and bolts, black sheets (except planished) chains, etc., are as follows in cents per hundred pounds: Albany, 16; Buffalo, 11; Boston, 18; Baltimore, 14½; Canandaigua, 13½; Cleveland, 10; Columbus, 12; Cincinnati, 15; Chicago, 18; Denver, Colo., 85½; Harrisburg, 14½; Louisville, 18; New York, 16; Norfolk, 20; Philadelphia, 15; Rochester, 11½; Richmond, 20; Scranton, 15; St. Louis, 23; Washington, 14½.

Freight Rates via Panama—The ocean freight market is very uncertain. It is difficult to secure enough vessels to carry the cargoes offered. An advance of 5c. per 100 lb. is now demanded for shipments from New York and Philadelphia bringing the quotation to 30c. For large lots of steel, such as shapes, reinforcing bars, plates wire and similar products, the rates to Pacific Coast points are as follows: From Bethlehem, 37.5c.; Chicago, 55c.; Cleveland, 44c.; Coatesville, 40c.; Johnstown, 39.5c.; New York, 30c.; Niles, 43c.; Philadelphia, 30c.; Pittsburgh, 46c.; Steubenville, 41c.; Wheeling, 41c.; Youngstown, 43c.

Wire Products—The insistent foreign demand continues, but inability to secure freight room, and high freight rates, may have some influence on this trade later in the year. Prices are steady. Plan wire to retailers Pittsburgh is quoted at $1.40; galvanized wire to retailers Pittsburgh, $1.75 to $1.80; painted barbed wire, $1.55 to $1.60, and galvanized barbed wire $1.95 to $2. Polished staples are $1.50 to $1.55, and galvanized staples $1.90 to $1.95. Wire nails are quoted at $1.63 Pittsburgh. All of these quotations are per 100 lb. in large lots|

Old Material—Prices are well maintained, and, in some cases, are higher than a month ago. There is a fair inquiry, but only a part of this has been turned into orders. In New York quotations are as follows:

	Per Gross Ton
Heavy-melting steel scrap	$8.00 to $9.15
Pipes and flues	7.25 to 7.50
No. 1 railroad wrought	9.50 to 10.00
Stove plate	8.00 to 8.50
No. 1 machinery cast	11.00 to 11.50
Wrought turnings	5.50 to 6.00

In Chicago prices are higher, but business is not especially active. Quotations are as follows:

	Per Gross Ton
Heavy-melting steel scrap	$9.75 to $10.00
	Per Net Ton
No. 1 railroad wrought	$8.75 to $9.00
No. 2 railroad wrought	8.25 to 8.50
No. 1 cast scrap	9.00 to 9.25
Pipes and flues	7.00 to 7.25
Agricultural malleable	7.50 to 7.75
Railroad malleable	7.75 to 8.25

The Pittsburgh market shows more life following the lead of heavy-melting steel scrap, which moved up 25c. a ton. Quotations are as follows:

	Per Gross Ton
Heavy-melting steel scrap	$11.00 to $11.75
Re-rolling rails	11.50 to 12.00
No. 1 foundry cast	11.25 to 11.75
Old car wheels	11.50 to 12.00
Machine shop turnings	7.75 to 8.00
Railroad malleable	.... 10.00

Wire Rope—Prices are lower and the new discounts are 47 and 5% from list for galvanized and 55 and 5% for bright. At these discounts the net price of wire rope at the mill is as follows:

Diameter in Inches	Price per Foot		
	Cast Steel	Crucible Steel	Plow Steel
2½	$0.75	$0.90	$1.07
2¼	0.61	0.73	0.86
2	0.47	0.57	0.67
1¾	0.39	0.49	0.58
1½	0.28	0.34	0.40
1¼	0.20	0.24	0.27
1	0.13	0.15	0.18
¾	0.08	0.09	0.11
⅝	0.06	0.07	0.08

Chain—Prices are steady and without change, as follows: These prices are per 100 lb., f.o.b., Pittsburgh:

3/16 in.........	$7.50	½ and 9/16 in.........	$3.00
¼ in.........	4.95	⅝ and 11/16 in.........	2.90
5/16 in.........	3.95	¾ and 13/16 in.........	2.80
⅜ in.........	3.40	⅞ and 15/16 in.........	2.70
7/16 in.........	3.20	1 to 1¼ in..........	2.60

EXTRAS TO ABOVE LIST PER 100 LB.

	For BB	For BBB
3/16-in. and ¼-in............	$1.50	$2.00
5/16-in. and larger..........	1.25	1.75

Coke—The financial difficulties of the Tower Hill-Connellsville Coke Co., together with those of J. V. Thompson, have resulted in an unsettled condition of the coke industry. Besides, the demand appears to be less than normal and lower prices are reported. Cosumers appear to have supplied their needs for the first part of the present year and producers are not expecting an active demand for some time. Standard makes of blast-furnace coke for immediate shipment are quoted at $1.50 to $1.60, and on contracts for future delivery at $1.65 to $1.75 per net ton at oven, and best grades of 72-hr. foundry coke are $2 for prompt shipment and $2.15 to $2.25 per ton net at oven on contracts for delivery to July 1.

REINFORCING MATERIALS

Bars, Concrete Reinforcing—No change was made in the price of bars for February delivery, which was expected in view of the higher prices for other steel products. For later deliveries, higher prices are demanded, 1.15c. being the base price for March and 1.20c. for April. Prices for other sizes are as follows:

	Cents per Pound		
Size	Mill Shipments Pittsburgh	*Warehouse Pittsburgh	Delivered from *Warehouse New York
¾-in. and larger...	1.10	1.50	1.95 to 2.00
⅝-in.	1.15	1.65	2.00 to 2.05
½-in.	1.30	1.80	2.15 to 2.20
⅜-in.	1.40	1.90	2.25 to 2.30
¼-in.	1.70	2.20	2.60 to 2.65

*Bars from warehouse are cut to desired length without extra charge.

Triangle Mesh—Prices continue without change as follows:

PRICE PER 100 SQ.FT.

		Plain Material		Galvanized	
Style No.	Cross Sec. Area per Ft. Width	Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.	Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.
†4	$0.102	$1.00	$1.23	$1.12	$1.34
5	0.077	0.80	0.97	0.89	1.00
6	0.058	0.63	0.77	0.71	0.84
†7	0.041	0.49	0.60	0.55	0.66
†23	0.170	1.69	2.05	1.88	2.24
24	0.142	1.46	1.77	1.62	1.93
25	0.124	1.29	1.57	1.43	1.71
†26	0.110	1:17	1.42	1.30	1.55
†27	0.085	0.96	1.17	1.07	1.28
28	0.066	0.80	0.97	0.89	1.06
29	0.049	0.66	0.80	0.73	0.87
31	0.261	2.49	3.02	2.76	3.29
32	0.225	2.16	2.62	2.40	2.86
33	0.196	1.93	2.34	2.14	2.55
34	0.146	1.48	1.80	1.64	1.96
35	0.109	1.117	1.42	1.30	1.55
36	0.075	0.87	1.05	0.97	1.15
38	0.380	3.55	4.30	3.93	4.68
†39	0.325	3.05	3.70	3.38	4.03
40	0.283	2.68	3.25	2.97	3.54
41	0.208	2.05	2.48	2.27	2.70
42	0.151	1.55	1.88	1.72	2.05
†43	0.101	1.10	1.34	1.23	1.46

†This material is made in regular widths of 18, 22, 26, 30, 34, 42, 46, 50, 54 and 58 in. Standard lengths in rolls are 150, 250, 300 and 600 ft.

CLAY PRODUCTS

Sewer Pipe—Business during the month has been very quiet. Discounts are as follows: 3- to 24-in., 78%; 27- to 30-in., 70%; 33- to 36-in., 65%. At these discounts, net prices are as follows:

PRICE OF SEWER PIPE PER FOOT

Size		Size	
3-in	$0.055	18-in.	$0.418
4-in.	0.055	20-in.	0.495
5-in.	0.088	22-in.	0.66
6-in.	0.088	24-in.	0.715
8-in.	0.1265	27-in.	1.35
10-in.	0.184	30-in.	1.65
12-in.	0.22	33-in.	2.20
15-in.	0.297	36-in.	2.45
18-in.	0.418		

Flue Lining—The market remains unchanged, and a discount of 80% off list is quoted. At this rate, prices are as follows:

FLUE LINING PRICE PER FOOT

Size	Weight in Lb.	Price per Ft.	Size	Weight in Lb.	Price per Ft.
4½x8½-in	14	$0.07	8½x18-in	45	$0.18
4½x13-in	20	0.09	13x13-in	45	0.17
7½x7½-in	15	0.08	13x18-in	57	0.24
8½x8½-in	18	0.09	18x18-in	75	0.40
8½x13-in	28	0.13			

METALS

Copper—Orders for copper for export continue large, Russia being the heaviest buyer for shipment, via Japan. The export demand, together with the local activity, has resulted in a marked advance in prices. It is thought by those in the trade that the demand for foreign consumption will result in a larger output by the mines in spite of the large supplies in warehouses. Indications point to exports amounting to at least 60,000,000 lb. for January. For American consumption, deliveries this month have been larger than during December, although there has been little increase in consumption on domestic account. Local manufacturers' melting has increased, due to export orders for finished materials. Buying of wire bars and electrolytic copper by manufacturers is likely to continue, as important orders are being received daily. Lake copper is strong, the ruling price being 15c., while electrolytic is quoted at 14.75c. The general condition of the trade is considered to be much better than for any time since the summer months, and while the recent advance may be partially the result of speculation, there is no doubt that there is a large genuine demand.

Tin—The market has developed strength and prices have advanced materially. Spot tin sold at 35.75c. in lots of 25 tons, while five-ton lots were dealt in at 36.25c. January arrivals amounted to about 3500 tons and there are afloat 2900 tons. The interest, however, is confined to spot tin and not to the future position, consumers being inclined to take chances on being able to buy to better advantage as time advances. Lack of shipping facilities from the Far East is one of the controlling factors in the situation which is not likely to improve until conditions become more settled.

Lead—The market for lead has been strong. Prices are higher, spot being quoted at 3.65c. to 3.70c., New York, and 3.55c. to 3.60c., East St. Louis.

Spelter—Prices are much higher, due to an insistent demand from domestic consumers. While lower prices have been predicted, they have not yet materialized. Spot in the open market sold for 7.37½c., New York, and 7.12½c., East St. Louis.

Antimony—Prices for antimony have advanced materially, special brands being in a much stronger position. Cookson's is quoted at 20c. per lb., Hallett's 19c., while ordinary brands sold at from 16c. to 17c. per lb.

Miscellaneous Metals—Prices are generally higher, mainly due to the advance in copper, together with a more lively demand. Quotations for small lots are as follows:

	Per Pound
Bismuth	$3.80 to $4.10
Brass tubes, iron-pipe sizes:	
½ in.	17.25c.
¾ in. to 3 in.	16.25c.
3½ in.	16.25c.
4 in.	17.25c.
Brass rods	15.25c.
Brass sheets	15.50c.
Solder	22.50c.
Copper tubes	21.25c.
Zinc sheets	9.50c. to 10c.
Copper sheets	19.75c.
Pig tin (five-ton lots, cash)	35c.

Old Metals—The market for old metals has been narrow, the demand being extremely small. Dealers' buying quotations are as follows:

	Cents per Pound
Copper, heavy and crucible	12.10
Copper, heavy and wire	11.75
Copper, light and bottoms	10.50
Brass, heavy	8.25
Brass, light	6.75
Heavy machine composition	10.25
Composition turnings	8.75
Lead, heavy	3.20
Zinc scrap	4.50

MISCELLANEOUS

Rubber—The price of rubber is lower than at any time in the last five years. The leading American manufacturers have secured the consent of the British Government to export rubber from Great Britain to the United States under certain restrictions. Stocks in Great Britain and the United States are sufficient for the present demand, and it is significant to note that manufactured supplies have had a sharp fall in prices. Quotations are as follows: Up River Para fine, 58 to 60c.; Up River Para coarse, 44 to 46c.; Island fine, 55 to 58c.; Island coarse, 29 to 30c.; Balata sheet, 50 to 52c.; Ceylon sheet, 62c.; Ceylon pale crepe, 61½ to 63c.

Machine Tools—Activity among certain classes of the machine tool manufacturers has probably never been more pronounced than in the last six weeks. Foreign buyers have purchased lathes in unusual numbers, and milling machines have lately been in good requisition. Foreign buyers have not only taken new tools, but have made serious inroads on the stock of second-hand machines, of which there was an enormous supply. Most of the machinery taken has been of the smaller types, but, owever, a few automatic machines have been purchased, and some boring mills. Turret lathes have been in exceptionally good demand. This machinery goes not only to Great Britain, but to France, Italy, and a large amount to Russia.

Railway Ties—With the exception of a few inquiries from foreign markets for special sizes in railway ties, there has been no noticeable improvement during the month. Standard first-class ties are quoted as follows: 7x9 in. x 8 ft. 6 in., 72c.; 6x8 in. x 8 ft., 63c. These prices are f.o.b. New York.

Lighterage Limits—The free delivery or "Lighterage Limits" in New York are as follows: In Manhattan, from a point opposite the Fort Lee ferry, south along the Hudson River around the Battery and north along the East and Harlem Rivers to the Jerome Ave. Bridge at 155th St. In New Jersey, south from Fort Lee ferry to Bayonne City, points on the north and east shores at Staten Island, between Bridge Creek (Arlington) and Clifton, both inclusive, and including Elm Park, Erastina and Shooters Island. In Brooklyn, from 69th St., Bay Ridge, north to Pot Cove, Astoria, Borough of Queens.

Immigration—The monthly bulletin of the Bureau of Immigration shows that 26,298 aliens were admitted in November, the smallest number in any month in recent years. The immigration of aliens, for a series of months, is compared with previous years as follows:

	1914	1913	1912	1911
January	44,708	46,441	38,453	36,361
February	46,873	59,156	45,380	42,82[illegible]
March	92,621	96,859	91,185	81,687
April	119,885	136,271	99,839	98,936
May	107,796	137,262	113,635	95,361
June	71,728	176,261	92,425	71,019
July	60,377	138,244	78,101	57,737
August	37,706	126,180	82,377	50,110
September	29,143	136,347	105,611	62,599
October	30,416	135,140	108,300	69,418
November	26,298	104,671	94,739	61,765
December	.....	95,387	76,315	59,841

RAILWAYS

Virginia—Southern Ry.—Surveys are being completed by this company for the construction of a second track on its line from Arrowhead to Elma, Va. W. H. Wells, Washington, D. C., is Ch. Engr. Const.

North Carolina—Carolina & Yadkin River Ry.—This company contemplates the extension of its line from Denton to Troy, N. C., about 25 miles. E. C. Deal, Greensboro, N. C., is Vice-Pres. and Ch. Engr.

South Carolina—Carolina, Atlantic & Western Ry.—Plans are being considered by this company for the construction of an extension from Charleston, S. C. to Savannah, Ga. William Moncure, Raleigh, N. C., is Ch. Engr.

South Carolina—According to press reports J. C. Brewerton, Fayetteville, N. C., has secured the right-of-way for his proposed railway from the timber land on the Congaree River to his cooperage plant near Columbia, S. C.

Georgia—Carolina, Atlantic & Western Ry. — See item under South Carolina.

Louisiana—It is reported that surveys are being made for the construction of a logging road for the Chess & Wymond Co., from Rayville, La., to Calvert, where a connection with the Memphis, Helena & Louisiana R.R. will be made.

Kentucky—Chesapeake & Ohio Ry.—According to press reports this company contemplates the extension of its Beaver Creek branch from Beaver, Ky., to Wayland, Ky. C. W. Johns, Richmond, Va., is Engr. Branch Lines.

Missouri—Ozarks Ry.—Plans are being considered by this company for the construction of a 215-mile railway to connect Springfield, Mo., and Little Rock, Ark. K. V. Loba, Mountain Home, Ark., is Pres.

Arkansas—Ozarks Ry.—See item under Missouri.

Arkansas—Black Mountain & Eastern R.R.—This company has been incorporated to construct a railway from Combs to Gass, Ark., about 20 miles. The directors are Edward E. Jeter, Combs, J. H. Phipps, J. M. Williams and W. J. Reynolds, Fayetteville.

Arkansas—Memphis, Dallas & Gulf R.R.—This company contemplates the construction of a railway from Shawmut to Arkadelphia, Ark., about 50 miles. W. P. Hart, Nashville, Ark., is Ch. Engr.

Arkansas—De Queen & Eastern R.R. — See item under Oklahoma.

Texas—San Antonio, Fredericksburg & Northern Ry.—The construction of a 125-mile extension from Fredericksburg to Brownwood, Tex., will soon be started by this company. R. A. Love, San Antonio, is Pres.

Oklahoma—De Queen & Eastern R.R.—The construction of a railway from Broken Bow, Okla., to De Queen, Ark., about 26 miles, is contemplated by this company. J. C. Leeper, Broken Bow, is Ch. Engr.

New Mexico—Atchison, Topeka & Santa Fé Ry.—Surveys are being made by this company for the extension of its line from Des Moines, N. M. to Clovis, N. M. F. M. Bisbee, Amerillo, Tex., is Ch. Engr. Western Lines.

Idaho—Western Pacific Ry.—B. F. Bush, Pres., announces that funds for construction of the Boise-Winnemucca branch of the road, have been secured, and construction will soon be started. T. J. Wyche, San Francisco, Calif., is Ch. Engr.

ELECTRIC RAILWAYS

Lynchburg, Va.—The Lynchburg Traction & Light Co. contemplates building extension to Madison Heights over the proposed viaduct from Seventh and Commerce St. across the James River. J. W. Hancock, Lynchburg, is Gen. Ggr. and Pur. Agt.

Radford, Va.—Plans are being considered for the construction of an electric railway to connect Radford and Willis, about 28 miles. A. J. McClung, Secy. Bd. of Trade, Radford, is interested.

Princeton, W. Va. — Plans are being prepared by the Princeton Power Co. for the construction of 13 miles of new track. S. J. Evans, Princeton, is Pres. and Gen. Mgr.

Tarpon Springs, Fla.—According to press reports the construction of an electric railway from Tarpon Springs to Fivay, about 12 miles, is under consideration. W. L. Sontag, Alabama Hotel, St. Petersburg, and M. L. Waggoner, Third Ave. South, St. Petersburg, are interested.

Gadsden, Ala.—Preliminary arrangements are being made to start work in the spring on the construction of an electric railway to connect Gadsden and Center. Louis Hart, Gadsden, is interested. Noted Nov. 12.

Mobile, Ala.—The Mobile Light & R.R. Co. proposes to construct two loop lines in Mobile to connect its present tracks. P. P. Crafts, Mobile, is Mgr.

New Iberia, La.—The Southwestern Traction & Power Co. is preparing plans for the construction of an electric railway to connect New Iberia and St. Martinville, about ten miles. The company is also considering the construction of a line from Jeanerette to Berwich, about 50 miles. W. S. Heming, New Iberia, is Ch. Engr.

Shreveport, La.—Plans are being considered by the Shreveport Traction Co. for the extension of its electric railway from Waverly to South Highlands. W. A. Sullivan, Shreveport, is Gen, Mgr. and Pur. Agt.

Newport, Tenn.—The Carolina, Greenville & Northern R.R. Co. is making preliminary arrangements for the construction of its proposed electric railway from Kingsport to Newport. H. S. Reed, Los Angeles, Calif., is Pres. Noted Dec. 31.

Cleveland, Ohio—The Cleveland, Southwestern & Columbus Ry. Co. contemplates the construction of an electric railway to connect Berlin Heights, Wakeman, New London, Plymouth, New Washington and Bucyrus. E. F. Schneider, Cleveland, is Gen. Mgr. and Pur. Agt.

Cleveland, Ohio — The Cleveland Ry. Co. has submitted plans to the Madison Ave. Civic Association for the construction of an electric railway on Madison Ave. from West 117th St. to Rocky River. George L. Radcliffe, Cleveland, is Gen. Mgr.

Chicago, Ill.—The city contemplates an expenditure of $3,000,000 for a motorbus transportation system. John Ericson is City Engr.

Kankakee, Ill.—According to press reports the right-of-way from Lafayette to Rensselaer has been secured for the construction of the proposed electric railway from Lafayette to Kankakee.

Ludlow, Ill.—The Kankakee & Urbana Traction Co. contemplates the extension of its line north from Ludlow. T. W. Shelton, Urbana, Ill., is Ch. Engr.

Columbus, Kan.—The Oklahoma & Interstate Ry. Co. is making preliminary arrangements to start work in the spring on the construction of its proposed electric railway to connect Columbus, Galena and Baxter Springs, Kan., and Commerce and Miami, Okla. Noted July 16.

Galina, Mo.—The Southwest Missouri R.R. Co. contemplates the extension of its line from Galena to Commerce. E. J. Pratt, Webb City, is Supt. and Pur. Agt.

St. Louis, Mo.—The United Ry. Co. of St. Louis contemplates the extension of its Fourth St. line through the Lafayette Park district. Robert McCulloch, St. Louis, is Pres., Gen. Mgr. and Pur. Agt.

Brenham, Tex.—Surveys are being made for the construction of an electric railway to connect Brenham, Independence and Washington. L. M. Hewitt, Bryan, is interested. Noted Nov. 12.

San Angelo, Tex.—Plans are being considered by the San Angelo St. Ry. Co. for the construction of an extension to its line. R. S. Grimes, San Angelo, is Supt.

Brigham City, Utah.—The Ogden Rapid Transit Co. is preparing plans for the extension of its line from Wellsville to Brigham City. P. D. Kline, Ogden, is Gen. Mgr.

Santa Barbara, Calif.—The City Council has granted a franchise to Richard Hamilton Gaud to construct and operate an electric railway on certain streets in the city.

LIGHT, HEAT AND POWER

Auburn, Maine—The City Council is considering the installation of a municipal electric-light plant. It has been suggested that a vacant school building be used for the installation of a steam-driven electric generating plant. The estimated cost of such a plant is $50,000. R. A. Swift is City Engr.

Framingham, Mass.—Bids will be received until Feb. 6 by the State Board of Education for the wiring and electrical and boiler work in a dormitory building for the State Normal School. David Snedden is Chn. of Bd. Grey Lowell, 12 West St., Boston, is Arch.

✚Lynn, Mass.—(Official)—The Lynn Gas & Electric Co. has awarded the contract for the foundation of its new gas holder to the MacARTHUR CONCRETE PILE & FOUNDATION CO., 11 Pine St., New York. The contract for the tank was awarded to the BARTLETT-HAYWARD CO., Baltimore, Md. The holder will have a capacity of 5,000,000 cu.ft.

Providence, R. I.—The Providence Gas Co. plans to lay 7000 ft. of new gas pipe, and will build a new gas holder at Hartford and Petteys Ave. John W. Ellis is Pres. and Mgr.

New Haven, Conn.—The Winchester Repeating Arms Co. has taken out a permit for the construction of an addition to its gas plant on Newhall St. It will cost $6200.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were opened Jan. 25 for electrical equipment in new Public School 95, Van Sicklen St. and Neck Rd., Borough of Brooklyn, as follows: New York Construction Co., $7796; Jandous Electrical Equipment Co., $7900; Wimpie Electric Co. Inc., $9250; Peet & Powers, $7570 (approximately); T. Frederick Jackson Inc., $7564. Noted Jan. 21.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were opened Jan. 25 for installing heating and ventilating apparatus in Public School 36, Stagg and Ten Eyck St., between Bushwick Ave. and Waterbury St., Borough of Brooklyn, from the following: Blake & Williams, $18,214; Grimshaw & Sturges, $17,841; William J. Olvany, $17,535; Osborn, Rea & Co., $18,556; Daniel J. Rice, $18,992; Raisler Heating Co., $19,600; James Curran Mfg. Co. Inc., $17,778; George E. Gibson Co. Inc., $20,300; Philip & Paul, $18,583. Noted Jan. 21.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were received Jan. 29 by the Board of Trustees, Bellevue and Allied Hospitals, for reconstructing the existing branch circuits of the electric lighting system, additional gas piping, and gas and electric fixtures for the main building of the Harlem Hospital from: E. J. Electric Installation Co., New York, $3310; Reis & O'Donovan Inc., $7980; Lewis H. Woods, $6475; Frank Neheling, $4713; C. J. McCullough, $4788. Noted Jan. 21.

Butler, N. J.—(Official)—Bids will be received until 8 p.m., Feb. 15, by the Lighting Committee of the Borough Council of Butler for the construction of a municipal electric-light plant, including building for power station, oil engines, generators, switchboards, distributing system, etc. Runyon & Carey, 845 Broad St., Newark, N. J., is Engr.-in-Charge.

✚Wilkes-Barre, Penn.—The Board of Directors of the Wilkes-Barre Private Ward Hospital has awarded the contract for electrical work in the new hospital building to SHEPHERD & RUST, 42 West Market St., Wilkes-Barre. The plans provide for an indirect lighting system throughout, power installation for motors, heating apparatus, vacuum cleaning, ventilating and signaling systems, passenger and freight elevators, and for electro-therapeutic work and X-ray apparatus.

Cleveland, Ohio—Bids will be received until Feb. 5 by the Commissioner of Purchases and Supplies, City Hall, for storage battery set to operate electric switches and signals for substation, for the municipal electric-light plant.

Cleveland, Ohio—Bids will be received until noon, Feb. 10, by the Commissioner of Purchases and Supplies for piping and valves in connection with a 100-kw. turbine. Bids will be received until noon, Feb. 12, for fiber conduit for the municipal electric light department. F. W. Ballard, 1443 East Third St., is Comr. of Light and Heat Dept.

Columbus, Ohio—The Board of Commissioners of Franklin County is reported to be considering plans for an electric-power plant to light the Court House, the county morgue, the infirmary buildings and Memorial Hall.

Findlay, Ohio—It is reported that the Modern Light & Power Co., recently incorporated with a capital of $10,000, will build an electric-light plant for local service. R. C. Bishop, P. D. Elsea and E. B. Newman are interested.

Detroit, Mich.—Press reports state that the Edison Illuminating Co. of Detroit will soon begin the construction of a $125,000 substation on Congress St. near Cass Ave. The building will cost about $40,000, and the equipment $85,000. About 5000-kw. will be generated at first, but eventually it will be increased to 10,000-kw. Alexander Dow is Pres. and Gen. Mgr. of the company.

Lansing, Mich.—F. W. Blackmar, Chn. of the Prison Commission, has recommended, in a recent report to the Governor, the installation of a new power plant at the Lansing State Penitentiary. The probable cost of the plant will be $50,000.

West Branch, Mich.—It is reported that Francis E. Hatch, Detroit, Mich., has purchased an electric-light plant at West Branch, and will spend about $30,000 in enlarging and improving it.

Medford, Wis.—The Medford Light & Heating Co. contemplates, so it is reported, the construction of a new power house and the installation of sufficient new equipment to furnish a 24-hr. service. William Ungrodt, Medford, is Supt. and Ch. Engr.

Hibbing, Minn.—According to press reports, the Water and Light Commission is considering the purchase of a new site, and constructing an entire new municipal power plant, including a condensing system, which will appreciably reduce the amount of fuel required. John Curran is Chn. of Water and Light Comn. Noted May 14 and June 11.

Imogene, Iowa—The City Council is considering the establishment of a municipal electric-light plant. It is reported that energy for its operation will be obtained from the Shenandoah plant.

Schleswig, Iowa—It is reported that the City Council has made an appropriation of $16,000 to be used for the construction of a municipal electric-light plant.

Edgar, Neb.—Plans are being prepared for remodeling the municipal electric-light plant. John Kaminske is Pur. Agt.

Knobnoster, Mo.—The Standard Engineering Co., Republic Bldg., Kansas City, Mo., is preparing plans for the construction of an electric-light plant in Knobnoster, to cost about $15,000. It is reported that bids will be asked for the equipment about Feb. 15.

Casa Grande, Ariz.—F. H. Brackett, Colin Cameron and Frank H. Hitchcock have applied to the City Council for a franchise to construct and operate an electric-light plant in Casa Grande. The estimated cost of the improvement is $100,000. An ice factory and water-works system will possibly be built.

Prescott, Ariz.—It is reported that the Arizona Power Co. plans to construct three miles of 45,000-volt transmission line, and install a substation at Carlisle with an output of 2000 hp. M. V. Watson is Mgr.

Castella, Calif.—The California-Oregon Power Co., San Francisco, contemplates extending its transmission lines from Castella, Shasta County, to the Coffee Creek mining district, a distance of 25 miles. A. L. Rosborough, San Francisco, is Secy. and Gen. Mgr.

BRIDGES

+Van Buren, Maine—(Official)—A contract has been awarded to the MacARTHUR CONCRETE PILE & FOUNDATION CO., 11 Pine St., New York, N. Y., for the concrete pile foundation of the bridge to be built over the St. John River between Van Buren, Maine, and St. Leonard, N. B. Noted Jan. 30, 1913, and Oct. 29, 1914.

+★Wawarsing, N. Y.—(Official)—The Town Board of Wawarsing has awarded the contract for the construction of a 197-ft. bridge over Rondout Creek to the LACKAWANNA BRIDGE CO., Buffalo, N. Y., at $8490. S. S. Shurter is Town Supt. Noted Jan. 7.

Camden, N. J.—In accordance with an ordinance recently adopted by the City Council, the Pennsylvania R.R. plans to build a new reinforced-concrete bridge over its tracks at 27th St. The estimated cost is $100,0000. A. C. Shand, Philadelphia, Penn., is Ch. Engr.

Freehold, N. J.—Press reports state that the Board of Chosen Freeholders of Monmouth County and the Jersey Central Traction Co. will build a $40,000 drawbridge at the mouth of Matawan Creek on the Keyport and South Amboy Rd. The bridge will be 30 ft. wide.

Harrisburg, Penn.—(Official)—Plans are not yet ready for bids for the new double track railway bridge to be built by the Cumberland Valley R.R., over the Susquehanna River at Harrisburg. It will consist of 21 74½-ft. and 24 77-ft. concrete arches, and one 70-ft. steel, half-through plate girder for double track. About 75,000 cu.yd. of concrete will be required. The estimated cost is $750,000. Thomas B. Kennedy, Chambersburg, Penn., is Engr.-in-Charge. Noted Jan. 1 and 15, Apr. 16, 1914, Jan. 21, 1915.

Bedford City, Va.—(Official)—Bids will be received until noon, Feb. 16, by the Clerk of the Circuit Court of Bedford County, for the construction of a 209-ft. bridge over Elk Creek, about three miles from Forest. The Childrey Co., Richmond, Va., is Engr.-in-Charge.

+Richmond, Va.—(Official)—The State Highway Commission has awarded the contract for the construction of a reinforced-concrete bridge over the Chickahominy River between Henrico and Hanover Counties, to SHIRLEY CARTER, Ashland, Va. Six other bids were received. Noted Jan. 21.

+Bradentown, Fla.—(Official)—The Commissioner of Public Works has awarded the contract for the construction of a Scherzer rolling lift bridge to A. C. FOX & CO., Dayton, Ohio, at $9315. There were ten bids received, the highest of which was $11,500. Noted Dec. 10 and 24, Jan. 21.

Jacksonville, Fla.—The recommendation for a new bridge over Hogans Creek at Liberty St. has been made. It is reported that the present City Council will request the incoming Council to appropriate $20,000 for the purpose.

+Pine Hill, Ala.—The Gulf, Florida & Alabama Ry. has awarded the contract to the AMERICAN BRIDGE CO., 30 Church St., New York, N. Y., for a new railway bridge over the Alabama River near Pine Hill. It will have a draw span 292 ft. long, two through trusses, each 146 ft. long, and three deck plate girder approach bands, each 45 ft. long.

Harrodsburg, Ky.—The Fiscal Court of Mercer County will build a new bridge over the Chaplin River at Bailey's Ford.

Hindman, Ky.—It is reported that the Fiscal Court of Knott County has decided to build a bridge over the left fork of Troublesome Creek.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Feb. 26, by the Board of Commissioners of Hamilton County, for the construction of two concrete bridges. Under Specification No. 730, a bridge on the Pippin road, Colerain Township; Specification No. 732, a bridge on the Owl Creek road, Colerain Township. Fred E. Wesselman is Pres. Bd. of Comrs.

Cleveland, Ohio—Bids will be received until noon, Feb. 16, by the Commissioner of Purchases and Supplies, Room 511, City Hall, for the east section of the steel superstructure of the Clark Ave. Viaduct. Bids will be received at the same time for repairs to pier protections, and creosoted wood paving blocks and floor planking for various city bridges. Robert Hoffman, 405 City Hall, is City Engr.

Marion, Ohio—The Board of Commissioners of Marion County has instructed the County Engineer to prepare plans for two county bridges. One will be a 140-ft. span and the other a 60-ft. span, both with 16-ft. roadways. P. R. Mears is Mgr.

+Marion, Ohio—The Board of Commissioners of Marion County has awarded contracts for furnishing creosoted floor blocks for a number of county bridges to the MODERN CONSTRUCTION CO., Fremont, Ohio, at $8231, and the STANDARD ENGINEERING CO., Toledo, at $6673.

Toledo, Ohio—Press reports state that the City Council has instructed the Director of Public Service to prepare plans for a bridge over Swan Creek at Champion St.

+Greenville, Ill.—(Official)—The County Superintendent of Highways of Bond County has awarded the contract for the construction of a reinforced-concrete bridge in Central Township, to CONNOR & VAN DALSEN, Greenville, at $5775. Eighteen bids were received, ranging in amount from $5775 to $8195. Noted Jan. 21.

+Pecatonia, Ill.—(Official)—The contract for the construction of two reinforced-concrete bridges in Winnebago County, one in Pecatonia Township, and the other in Seward Township, has been awarded to W. A. LILJEQUIST, Freeport, Ill. J. S. Tarbert is Town Clk. Noted Jan. 14.

+Madison, Wis.—The City Council has awarded the contract for the construction of a reinforced-concrete arch at Mendota Beach to WEBBER & GAY, Madison, at $7385.

Milwaukee, Wis.—See item under "Miscellaneous": Park Improvements.

Knoxville, Iowa—(Official)—Bids will be received until 1:15 p.m., Feb. 23, by J. D. Schlotterback, Audr. of Marion County, for the construction of two groups of county bridges, the estimated total cost of which is $36,759. Bids will be received at the same time for four groups of reinforced-concrete box culverts, 69 in all, estimated to cost $22,548. W. O. Price is County Engr.

Bemidji, Minn.—Bids will be received until Feb. 5 by J. L. George, Audr. of Beltrami County, for constructing a 120-ft. bridge over the Rapid River. It will cost about $6500. Bids will be received at the same time for a number of culverts.

Ayr, Neb.—(Official)—The Commissioners of Adams County, Hastings, have rejected all bids received Jan. 14 for a 250-ft. bridge over the Little Blue River, south of Ayr. The Board of Commissioners will probably buy the material and build this bridge with its own forces. C. N. Hudson is County Clk. Noted Jan. 21.

Kearney, Neb.—The Boards of Commissioners of Buffalo County, Kearney, and Kearney County, Minden, will soon hold a joint meeting to confer on the question of replacing the wooden bridge over the Platte River south of Kearney with a new concrete structure. The present bridge is about one mile long.

Kearney, Neb.—(Official)—All bids received Jan. 25 by the City Council for the construction of a steel arch were rejected. No further bids will be asked for the present, on account of financial conditions. T. N. Hartzell is City Clk. Noted Jan. 7.

Kansas City, Mo.—Press reports state that bids will soon be asked for the construction of a $30,000 bridge over the tracks of the Chicago & Alton R.R. on Blue Ave. between Kansas City and Independence, Mo. The bridge will be built jointly by the railroad company and Jackson County under the supervision of the State Utilities Commission. Plans are in charge of Waddell & Harrington, Orear-Leslie Bldg., Kansas City, Mo. Noted Oct. 15.

Kansas City, Mo.—It is reported that the Park Board will soon advertise for bids for the construction of a concrete viaduct at 77th St. and the Paseo, Kansas City. The estimated cost is $40,000.

Harrisburg, Tex.—It is reported that the Commissioners Court of Harris County, Houston, has instructed the County Engineer to prepare plans for a new steel bridge over Brays Bayou at Harrisburg to replace the present structure. The estimated cost is $15,000.

Houston, Tex.—(Official)—Bids will be received until 2 p.m., Feb. 10, by the City Engineering Department for the construction of the Milam St. Bridge. The estimated cost is $37,000. E. E. Sands is City Engr.

+San Antonio, Tex.—The Commissioners Court of Bexar County received bids for the construction of a bridge over the Medina River at the Applewhite crossing as follows: DePUY & RANNEY, $5377 (awarded contract); J. H. Richardson, $7500; Charles M. Schoenfeld, $6250, and the Topeka Bridge & Iron Co., $5400. Noted Jan. 14.

Tucumcari, N. M.—(Official)—Bids will be received until 11 a.m., Feb. 11, by the Board of Commissioners of Quay County, for the construction of a 400-ft. pile bridge. The estimated cost is $4000. D. J. Finegan is County Clk. Noted Jan. 21.

Montesano, Wash.—The Board of Commissioners of Chehalis County plans the following bridge work: A bridge on the Compton section of the Whishkah road; two bridges across the West Fork of the Whishkah River; one bridge over the Satsop River on the Olympic Highway, and a bridge at the old ford of the Wyanootchee River. Bids will be asked in the early spring. W. C. Birdwell is County Clk.

Seattle, Wash.—It is reported that the Department of Public Utilities and the railways interested in the grade separation project at Argo, have decided to build an 800-ft. viaduct. The estimated cost is $400,000.

Portland, Ore.—(Official)—Bids will be received until 10 a.m., Feb. 17, by the Board of Commissioners of Multnomah County for the construction of three reinforced-concrete bridges on the Columbia Highway. Plans on file with State Highway Commission, Court House, Portland, or at the State House, Salem.

Famoso, Calif.—Bids will be received until 10 a.m., Feb. 10, by the Board of Supervisors of Kern County, Bakersfield, for the construction of a reinforced-concrete bridge over Poso Creek near Famoso. It will be about 90 ft. long. Noted Dec. 24.

+Glendale, Calif.—(Official)—The Board of City Trustees has awarded the contract for the bridge over Verdugo Wash on Canada Blvd., to MESMER & RICE, Los Angeles, Calif., at $28,200. Noted Jan. 29 and Sept. 17, 1914, and Jan. 14, 1915.

Holtville, Calif.—It is reported that the City of Holtville and the Board of Supervisors of Imperial County, El Centro, will build a 100-ft. bridge over the Alamo River at Sixth St. Holtville. The bridge will be of reinforced-concrete, with a 30-ft. jetty at each end. It will cost about $6000.

Kerrwood, Ont.—It is reported that bids will be received until Feb. 13 by H. Thompson, Township Clk., for the construction of a steel bridge over Steer's Creek.

Winnipeg, Man.—(Official)—Bids will be received until Feb. 15 by the Secretary of the Board of Control for the construction of a steel bridge over the Lee River. It will have two spans. E. V. Caton is Ch. Engr. Noted Dec. 10.

WATER SUPPLY—IRRIGATION

Anson, Maine—The citizens plan to build a municipal water system.

Portland, Maine—Press reports state that the Portland Water District plans to issue bonds for $100,000, the proceeds of which will be used for the extension of the water system. Bion Bradbury is City Engr.

Brookline, Mass.—An election will be held in March to vote on the question of issuing bonds for $200,000, the proceeds of which will be used for the improvement of the water system. The improvement includes the installation of slow-sand filters with pre-filter and clear water reservoir and low-lift pumps. Noted Dec. 17.

★Mount Morris, N. Y.—(Official)—Bids will be received until 2 p.m., Feb. 15, by the Municipal Board for constructing a new distributing system. J. Aubrey Striker is Village Clk.

Perth Amboy, N. J.—The city plans to construct a reservoir in the northwestern section of the city. C. Jorgensen is Chn. in charge.

Frederick, Md.—William H. Boardman, Consult. Engr., Philadelphia, Penn., recommends the construction of a storage reservoir with a capacity of 20,000,000 gal. Noted Oct. 29.

Gordonsville, Va.—Bids will be received until Feb. 15 by W. H. Sindlinger, Chn. Water Comn., for enlarging the reservoir on Cameron's Mountain. About 1000 cu.yd. of concrete and 3000 cu.yd. of earth will be required.

Bridgeport, W. Va.—According to press reports the citizens voted in favor of issuing bonds for $23,500, the proceeds of which will be used for the construction of water and sewer systems.

Cameron, W. Va.—The Baltimore & Ohio R.R., according to press reports, will build a 500,000,000-gal. water tank near Cameron. F. L. Stuart, Baltimore, Md., is Ch. Engr.

St. Marys, W. Va.—The citizens contemplate constructing a reservoir, estimated to cost $8000. J. H. McBride is City Recdr.

Nashville, N. C.—The citizens contemplate issuing bonds, the proceeds of which will be used for the installation of a water system.

Norlina, N. C.—An election will probably be held to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a water system.

Union, S. C.—An election will be held Feb. 16 to vote on the question of issuing bonds for $25,000, the proceeds of which will be used for the extension of the water and sewer systems.

Hawkinsville, Ga.—An election will be held Feb. 17 to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a water system. G. W. Jordan is Mayor.

Belzoni, Miss.—A pump with a capacity of from 432,000 to 720,000-gal. will be purchased by the city. J. J. Sisloff is Supt.

+New Iberia, La.—The contract has been awarded to H. S. SEALY by the City Commissioners at $17,000, for constructing a reinforced-concrete filtered water receiving storage basin.

Akron, Ohio—Bids will be received until noon, Feb. 9, by C. P. Parker, Dir. of Pub. Serv., for a venturi meter.

Brewster, Ohio—Bids will soon be received, according to press reports, for the construction of a water system. The estimated cost is $21,000. The W. J. Sherman Co., Toledo, is Engr. Noted Sept. 17.

Cambridge, Ohio—Plans prepared by the W. J. Sherman Co., Toledo, for the construction of a water system, have been approved by the City Council.

Cincinnati, Ohio—The United States Cast Iron Pipe & Foundry Co., Chicago, Ill., was low bidder for 1880 tons of pipe for the high pressure fire service, and the Kennedy Valve Co. was low bidder on valves and fire plugs. Bids were opened Jan. 29. Noted Jan. 21.

Cleveland, Ohio—Bids will be received until noon, Feb. 12, by the Commissioner of Purchases and Supplies, Rm. 511 City Hall, for galvanized steel pipe and cement for the water department. Specifications are on file with Charles F. Schultz, Comr. of Water.

East View, Ohio—(Warrensville post office)—Bids will be received until noon, Mar. 8, by Charles E. Burger, Clk., for laying water mains, paving and constructing sewers in various streets. The F. A. Pease Engineering Co., Marshall Bldg., Cleveland, is Engr.

Euclid, Ohio—(Official)—Bids will be received by H. S. Dunlop, Clk., until noon, Mar. 8, for constructing a 10-in. water main in Bliss Rd., St. Clair Rd. and in Upson Rd. Noted Jan. 28.

+New Boston, Ohio—(Portsmouth post office)—The contract for constructing a water system has been awarded to the STANDARD SUPPLY CO., at $16,481.

+Mishawaka, Ind.—The contract has been awarded to F. M. PRESCOTT STEAM PUMP CO., Milwaukee, Wis., at $12,035, for pumping engines for the water-works. Noted Dec. 10.

Paoli, Ind.—The construction of a filtration plant is under consideration. A. J. Rhodes is Village Clk.

Rock Island, Ill.—The Board of Public Improvements has recommended that a 10-in. water main be laid in Ninth and 12th St. between Brashar St. and Center station. The estimated cost is $11,000. W. Treichler is City Engr.

Staunton, Ill.—At a recent election the citizens defeated the bond issue for $20,000, the proceeds of which was to have been used for the installation of pumps at the water-works.

+Carroll, Iowa—The contract has been been awarded to the ALMO ENGINE & SUPPLY CO., Omaha, Neb., at $13,527, for making extensions to the water system. Noted Sept. 3 and 24.

Kinney, Minn.—Bids will soon be received by Russell Goudge, Village Clk., for the laying of water mains, constructing a pumping plant and a reservoir. The estimated cost is $10,000. S. S. Rumsey, Oliver Iron Mining Co., Virginia, is Ch. Engr. Noted Jan. 28.

Osseo, Minn.—Bonds for $11,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system. W. C. Buck, 921 Fremont Ave. South, Minneapolis, is Mgr.

+St. Paul, Minn.—It is reported that the contract has been awarded to the NATIONAL CAST IRON PIPE CO., Birmingham, Ala., at $25,000, for 1146 tons of c.-i. pipe.

+Little River, Kan.—(Official)—The contract has been awarded to the SUTHERLIN CONSTRUCTION CO., Kansas City, Mo., for constructing a water system. Noted June 4 and Sept. 17.

Mankato, Kan.—Harper & Stiles, Grand Ave. Temple, Kansas City, Mo., is preparing plans for the improvement of the water system.

Pratt, Kan.—Plans are being prepared by E. T. Archer & Co., New England Bldg., Kansas City, Mo., for the construction of an addition to the water-works and electric-light plant. M. P. Jones is City Clk.

Pretty Prairie, Kan.—A bond issue for $17,000 was defeated by the citizens at an election held Jan. 18. The proceeds was to have been used for the installation of a water system. W. H. Hanes is City Clk. Noted Dec. 24 and Jan. 7.

Eagle, Neb.—Bids will be received until 3 p.m., Feb. 8, by the village for constructing a water system. Plans are on file with George Reitter, Village Clk.

Valentine, Neb.—Bonds for $9000 have been voted by the citizens, the proceeds of which will be used for the installation of a water system.

Bruce, S. D.—The citizens contemplate constructing a municipal water system.

Laramie, Wyo.—(Official)—Bids will be received by F. J. Coolican, City Clk., until 7:30 p.m., Feb. 23, for making extensions to the water system. Materials will be required as follows: 15,000-ft. of 14-in. gravity supply main, 3200-ft. of 12-in. gravity supply main, 200 to 400-tons of c.-i. pipe and specials.

+Monett, Mo.—Press reports state that the contract has been awarded to the KEYSTONE DRILLER CO., Carthage, at $20,000, for making improvements to the water system. Noted July 16 and Aug. 6.

Oregon, Mo.—The city plans to improve its water system by installing a purification plant, laying water mains and constructing a standpipe. Morton R. Martin is Supt.

Fayetteville, Ark.—The installation of a water filter or clarifying system is contemplated by the Water Commissioners, according to press reports. H. Sour is Supt.

Newport, Ark.—It is reported that the Arkansas Power Co., Malvern, will buy the Coöperative Electric Light Co. of Newport. Improvements will be made.

Ennis, Tex.—I. Wereskoild, Consult. Engr., Dallas, has been retained by the city for the improvement of the water and sewer systems. Bonds for this purpose have been voted. Noted July 9.

Magnolia, Park, Tex.—(Houston post office)—Bids will be received until Feb. 5 by John B. York, City Attorney, for the purchase of $94,000 in bonds, the proceeds of which will be used for the construction of a municipal water system. Noted Dec. 24.

Cordell, Okla.—(Official)—Bids will be received until 7:30 p.m., Feb. 8, for making extensions to the water system at New Cordell. Plans are on file with the Benham Engineering Co., American National Bank Bldg., Oklahoma. Noted Mar. 19 and Jan. 21.

Roberts, Idaho—An election will be held to vote on the question of issuing bonds, the proceeds of which will be used for the construction of water and sewer systems.

Bellingham, Wash.—The construction of water mains in Walnut and J St. has been recommended to the City Council by Charles N. Beal, Supt. of Water-Wks.

Roslyn, Wash.—A special election will be held in March to vote on the question of issuing bonds for $10,000, the proceeds of which will be used for the extension of water system to Perrow Creek.

Riddle, Ore.—Press reports state that the Neenah Oregon Land Co. will build an irrigation and power dam on the South Umpqua River above Day's Creek. I. P. Gardner is Mgr.

Vale, Ore.—The Succor Creek Irrigation District has been formed and will irrigate 8000 acres in Malheur County, Ore., and in Owyhee County, Idaho. J. S. Wheeler is interested.

Azusa, Calif.—F. C. Roberts, Consult. Engr., Los Angeles, has been retained by the city to prepare plans for the construction of a new municipal water system. Noted Oct. 22 and Nov. 19.

Fairfield, Calif.—The Sacramento Valley Land & Water Co., recently incorporated, will construct an irrigation system in Solano and Yolo Counties. Among the incorporators are R. T. Stone and L. M. Stone, Davis, Calif.

San Bernardino, Calif.—The Water Commissioners have authorized the construction of a 20-in. water main in Sixth St. from Seventh to A St. Frank Smith is City Engr.

San Diego, Calif.—A special election will be called by the City Trustees to vote on the question of issuing $29,000 in bonds, part of which will be used for the extension of the water system. William M. Rumsey is City Engr.

Aylmer, Que.—A by-law has been passed by the citizens authorizing the extension of the intake pipe. The estimated cost is $12,000. James Baillie is Mayor. Noted Dec. 3.

Alexandria, Ont.—A by law has been passed by the ratepayers authorizing the expenditure of $5000 for the improvement and extension of the water system and electric-light plant. S. McDonnell is Town Clk. Noted Jan. 28.

Brockville, Ont.—The city plans to construct a filtration plant with a capacity of 4,000,000 gal. G. H. Bryson is Engr.

✚★Winnipeg, Man.—(Official)—The contract has been awarded by the Greater Winnipeg Water District to C. J. ANDERSON, Kenora, Ont., at $12,765, for the excavation of the channel between Indian Bay and Snowshoe Bay. Noted Dec. 24.

Kaslo, B. C.—The City Council plans to spend $5000 for the improvement of the water system. W. E. Hodder is Clk.

SEWERS

✚Boston, Mass.—The contract has been awarded to the WEST ROXBURY TRAP ROCK CO., at $44,470, for constructing the Dorchester Brook sewer. Other bidders were: Antony Baruffaldi, $46,538; M. Russo & Son Co., $47,255; Henry Spinach Contracting Co., $47,739; William J. Barry, $47,868; James J. Conway, $50,309; Peter Bompiani Co., $51,221; A. G. Tomasello, $52,705; Antony Cefalo, $52,758; McCarthy & Walsh, $53,242; George M. Bryne, $54,120; Coleman Bros., $54,983; William Barrett & Co., $56,459; Peter W. Hill, $58,954; John Landis, $59,139; Charles Latorella, $59,959; John Guarino, $62,204; Robert L. Barrett, $62,874; Hugh Nawn Contracting Co., $63,706. L. K. Rourke is Comr. Pub. Wks. Noted Jan. 14.

✚Boston, Mass.—The contract for constructing surface drains and catch-basins in Gainsborough and other streets has been awarded to JOHN LANDIS, at $5404. Other bids were: McCarthy & Walsh, $6109; Antony Cefalo, $6398; Antony Baruffaldi, $6493; Andrew M. Cusack, $6542; M. H. Kelley, $6556; John McCourt Co., $6660; Louis Balboni, $6887; William L. Dolan, $6956; James J. Conway, $7505; Caruso & Bruni, $8143; John F. Lynch, $8333; Louis W. Hickey, $12,301. L. K. Rourke is Comr. Pub. Wks. Noted Jan. 7.

✚Fall River, Mass.—(Official)—The contract has been awarded by the Reservoir Commission to the HANSCOM CONSTRUCTION CO., Boston, at $173,833 for constructing a reinforced-concrete intercepting drain under Contract No. 1. List of bidders noted Sept 17. H. K. Barrows is Consult. Engr.

★Warren, R. I.—(Official)—Bids will be received until 2 p.m., Feb. 16, by the Sewer Commissioners, for constructing 15,000 ft. of 8- to 18-in. sewers, sedimentation tanks, two small collection wells and motor houses. William H. Smith is Secy. For details see advertisement under "Contracts to Be Let." Noted Dec. 3.

Hartford, Conn.—O'Neil Bros., Hartford, was low bidder at $8800 for constructing sewers in Franklin Ave., Montowese St. and Victoria Rd. Bids were opened Jan. 26. Noted Jan. 21.

Albany, N. Y.—(Official)—Hering & Gregory, Consult. Engr., New York, N. Y., has been retained by the Board of Contract and Supply to prepare plans for an electrically operated sewage-pumping station to be built in connection with the sewage-disposal works.

Middletown, N. Y.—Plans, prepared by Johnson & Fuller, Consult. Engr., New York, for the construction of a sewage-disposal plant have been approved by the State Board of Health. Noted Apr. 23.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were received Jan. 28 by Marcus M. Marks, Pres. Borough of Manhattan, for changing sewers in various streets as follows: Park Ave., Marrow Construction Co., $6927; Fitzgerald & Brennan, $6141; Melrose Construction Co., $4830; P. Reilly, $5000, and P. J. Kearns, $5566; in 44th St., Fitzgerald & Brennan, $10,284; P. J. Kearns, $10,000; Gasparrini & DeBlaseo, $10,168; J. J. Haidwen, $9943; Melrose Construction Co., $11,128, and P. Reilly, $9190. Noted Jan. 21.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 10:30 a.m., Feb. 9, by the Board of Health, Municipal Bldg., Manhattan, for installing lighting, ventilation and moving pumps and all necessary alterations, and all other work incidental thereto in the sewer tank building on the grounds of the Kingston Ave. Hospital.

✚New York, N. Y.—(Borough of Queens)—(Official)—The Contract has been awarded to JOSEPH L. SIGRETTO & CO., Richmond Hill, New York, N. Y., at $6793, for constructing a sewer in Lefferts Ave., $1005 for a sewer in Flushing Ave. and $4029 for a sewer in Atlantic Ave. Bids were opened Jan. 28. Noted Jan. 21.

Rochester, N. Y.—Plans have been prepared and submitted to the State Board of Health by Edwin A. Fisher, City Engr., for the construction of a sewage-disposal plant. Noted Jan. 21.

Hackensack, N. J.—The Hackensack Improvement Committee is considering the construction of a sanitary sewer system and a sewage-disposal plant.

Orange, N. J.—The towns of Orange, East Orange and Montclair are considering the construction jointly of a sewage-disposal plant. John H. Gregory, of Hering & Gregory, New York, N. Y., is Engr.

Ventnor, N. J.—(Atlantic City post office)—Bids will be received until 8 p.m., Feb. 15, by the Common Council, for constructing 3460 ft. of intercepting sewer, 8330 ft. of 14-in., c.-i. force main and a sewage-disposal plant. W. I. Risley, 648 Bartlett Bldg., Atlantic City, is Engr.

Bellwood, Penn.—Harvey W. Linton, Altoona, has been retained by the Council to prepare plans for the installation of a sewer system. Noted Nov. 26.

Bridgeport, W. Va.—Press reports state that bonds for $23,500 have been voted by the citizens, the proceeds of which will be used for the construction of sewers.

Nashville, N. C.—The citizens contemplate issuing bonds, the proceeds of which will be used for the construction of a sewer system.

Union, S. C.—An election will be held Feb. 16 to vote on the question of issuing $25,000 in bonds, the proceeds of which will be used for the construction of sewers.

Hawkinsville, Ga.—An election will be held Feb. 17 to vote on the question of issuing bonds for $20,000, the proceeds of which will be used to construct a sewer system. G. W. Jordan is Mayor.

Richland, Ga.—The citizens contemplate issuing bonds, the proceeds of which will be used for the construction of sewers.

Miami, Fla.—The city plans to build sewers in the section north of the city cemetery. B. H. Klyce, 52 Real Estate Bldg., Miami, is Engr.

Cleveland, Ohio—Press reports state that Newton D. Baker, Mayor, has approved an ordinance providing for the construction of a sewer in Dugway Brook between Helena and Primrose Ave.

East View, Ohio—(Warrensville post office)—See item under "Water Supply-Irrigation."

Flint, Mich.—An election will be held Feb. 17 to vote on the question of issuing $106,726 in bonds for constructing storm and sanitary sewers.

✚Lockport, Ill.—A contract for constructing 8½ miles of 8- to 30-in. pipe sewers has been awarded to YALE & REAGAN, Chicago, at $59,995. Noted Dec. 3 and 10.

✚Sandstone, Minn.—A contract for constructing a sewer system has been awarded to CHARLES ECKLUND & CO., Duluth. Noted Jan. 7.

Eldorado, Kan.—Bids will be received until Feb. 16 by O. C. Allebach, City Clk., for constructing a sewage disposal system. J. H. Austin is City Engr.

Broken Bow, Neb.—Press reports state that an election will be held Feb. 9 to vote on the question of issuing $17,000 in bonds for constructing sewers. R. E. Thompson is City Clk.

Howard, S. D.—Press reports state that the citizens voted Jan. 10 in favor of issuing $24,000 in bonds for constructing a sewerage system.

✚Kansas City, Mo.—The contract for constructing lateral sewers has been awarded to M. WALSH, 2915 East 23d St., at $103,800.

✚Dallas, Tex.—The City Commissioners have awarded the contract to the WINSLETT-ELDRIDGE CO., at $11,941, for constructing a sewer in Commerce St. between the Houston & Texas Central R. R. right-of-way and Race St.

Ennis, Tex.—See item under "Water Supply-Irrigation."

Waco, Tex.—At a recent election the question of issuing $14,000 and $4,000 in bonds for constructing sanitary and storm sewers respectively was defeated.

✚Portland, Ore.—The contract for constructing the Willow St. extension of the East Stark St. trunk sewer has been awarded to WILLIAM LIND, at $148,639. Noted Dec. 24 and Jan. 28.

St. Thomas, Ont.—Plans have been prepared by W. N. Ferguson, Engr., for the construction of a storm sewer system. The estimated cost is $45,000.

New Westminster, B. C.—The City Council contemplates an expenditure of $10,000 for the extension of the sewerage system.

GARBAGE

Cambridge, Mass.—Mayor Good has ordered the jurisdiction over garbage collection to be transferred from the Overseers of the Poor to the Street Department. An order has been issued transferring $9000 from the reserve fund to carry out the work for the fiscal year, ending Mar. 31.

New York, N. Y.—(Borough of Queens)—(Official)—The following bids were received Jan. 29 by the Borough President for the general construction of a destruction plant at Ridgewood: McHarg Barton Co., $72,400; Northeastern Construction Co., $98,000; Kelley & Kelley, $97,800; Marble Arch Co., $104,000; William Werner, $105,888; T. A. Clark Co., $106,400. Noted Jan. 21.

+Lyndhurst, N. J.—The Union Township Board of Commissioners has awarded the contract for the removal of garbage for one year to JAMES HENDRICKS.

+Weehawken, N. J.—The Township Committeee, Jan. 18, awarded the contract for the removal of garbage and ashes to HARRY E. MUECKE, Weehawken, at $4500. Noted Jan. 14.

Wilmington, Del.—The City Council has approved two bills which will be submitted to the Legislature: One will give the Street and Sewer Department jurisdiction over the collection of garbage eliminating private contractors; the other will give the Council power to govern the disposal. The Council is considering the purchase of an incinerator now operated by private interests.

+St. Petersburg, Fla.—The contract for the construction of the municipal incinerating plant has been awarded to FRANK ESTES, at $5000.

Ashland, Ohio—The City Service Director has been authorized to receive bids and award contract for the collection and disposal of garbage for one year.

Dayton, Ohio—(Official)—Bids will be received at the office of Hugh E. Hall, City Accountant, until noon, Feb. 9, for the sale of $45,000 in bonds, the proceeds of which will be used in completing and equipping the city garbage reduction plant. Noted Oct. 22, Dec. 10 and 17.

Salt Lake City, Utah—A recommendation has been made to the city by George W. Snow, Ch., Bureau Mechanical Inspection, that a garbage crematory be constructed.

Portland, Ore.—Press reports state that the City Commissioner is having preliminary plans prepared for the construction of an additional garbage incinerator to cost about $275,000.

Hamilton, Ont.—The Board of Health is considering the proposition to install a garbage incinerator.

Kingston, Ont.—The Board of Health, Hugh McBratney, Chn., is considering the installation of an incinerator for garbage disposal.

Ottawa, Ont.—(Official)—Plans for the construction of the incinerator will soon be prepared by the City Engineering Department. The estimated cost is $60,000. Noted Nov. 26, Dec. 31 and Jan. 14.

STREETS AND ROADS

Mansfield, Conn.—Bids will be received until Feb. 15 by the Board of Selectmen for repairing the town highways for a period of one year. Bradley M. Sears is Town Clk.

Buffalo, N. Y.—Press reports state that the Common Council contemplates repaving Main St.

Dunkirk, N. Y.—The Common Council has directed the City Engineer to prepare plans for resurfacing a section of Central Ave.

Forestville, N. Y.—According to press reports, the citizens at a recent election voted in favor of issuing bonds for paving Main St. Charles McNeal is Village Clk.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Jan. 27 by L. H. Pounds, Pres., Borough of Brooklyn, for improving (a) Front St. from Adams to Bridge St., (b) Hudson Ave. from Nassau to DeKalb St., as follows: W. J. Scanlon Co., (a) $12,186, (b) $32,407; Charles A. Meyers Contracting Co., (a) $30,236, (b) $27,881; Norton & Gorman Contracting Co., (a) $12,885, (b) $31,080; H. J. Mullen Contracting Co., Inc., (a) $14,286, (b) $32,407; Newman & Carey Co., (a) $14,305, (b) $34,857; M. F. Hickey, (a) $13,024, (b) $29,083; John J. Guinan Contracting Co., (a) $13,915, (b) $31,401; Joseph Johnson Sons, (a) $13,663, (b) $31,694; Rosenthal Engineering & Contracting Co., (a) $31,412, (b) $29,785; Louis Granoto, (a) $13,857, (b) $32,036; Brady-Ottarsh, (a) $13,406, (b) $30,357; Ulrich & Co., (a) $13,146, (b) $28,446; Frank J. Gallagher, (a) $12,968, (b) $38,021; M. J. O'Hara, (a) $13,141, (b) $27,819. Noted Jan. 24.

Buttzville, N. J.—Bids will soon be received for constructing a road from Buttzville to Denville. F. W. Salmon, Netcong, N. J., is Engr.-in-Charge.

New Brunswick, N. J.—The Board of Freeholders has received bids for the construction of the third section of the Roosevelt-Woodbridge Rd. as follows: Schneider & Stelle, New Brunswick, $33,358; M. Irving Demarest, Seawaren, $34,839; Liddle & Pfeiffer, Perth Amboy, $35,719; Baker & Bowner, Inc., New York, $45,897; Thomas H. Riddle, New Brunswick, $36,457; Conrad Sebolt, New Brunswick, $34,158. Noted Dec. 10 and Jan. 21.

Newton, N. J.—The Board of Freeholders has approved revised plans and specifications for the improvement of the Newton-Sparta Rd., providing for a 24-ft. roadway, 14 ft. to be macadam, with 7% grades. The road will be about five miles long and is estimated to cost $36,000. Noted Sept. 24, Oct. 8 and 22.

South Orange, N. J.—The Board of Trustees has passed an ordinance providing for the construction of concrete and cement sidewalks in Waverly Pl.

Trenton, N. J.—The State Road Department is preparing plans for the improvement of the Paterson Plank Rd. from Homestead to the Hackensack River.

Edgewood, Penn.—Bids will be received until 5 p.m., Feb. 8, by B. C. Neal, Borough Engr., for grading, curbing and paving Savannah Ave.

Millvale, Penn.—Press reports state that at a recent election the citizens voted in favor of issuing $95,000 in bonds for improving roads.

Baltimore, Md.—Bids will be received until Feb. 16 by the State Road Commissioners, Garrett Bldg., for the construction of sections of State Highway as follows: Under Contract A B-6, Anne Arundel County, 3.76 miles of concrete, on the Annapolis Blvd.; Contract A-11, Allegheny County, 1.74 miles resurfacing along the National Pike; Contract Bc-18A, Baltimore City, 0.74 mile of sheet asphalt, on Cathedral St., from Mt. Royal Ave. to Madison St.; Contract Ch-11, Charles County, 5.70 miles in 4-in. gravel resurfacing, La Platta to near Ripley; Contract G-8, Garrett County, 0.85 mile resurfacing through Grantsville.

★+Baltimore, Md.—The contract for paving Franklin St. from Pennsylvania to Fremont Ave., Druid Hill Ave. from Paca to McMechen St. and George St. from Myrtle to Pennsylvania Ave. with brick has been awarded to M. O'HERRON & SON, INC., 843 North Howard St., at $53,000. Noted Jan. 14.

Boydton, Va.—The citizens of Mecklenburg County will vote Feb. 10 on the question of issuing $30,000 in bonds for constructing roads in the Bluestone Road District.

Salem, Va.—An election will be held Mar. 2 for the purpose of voting on the question of issuing $90,000 in bonds for constructing 22½ miles of road in the Roanoke County Cave Spring District.

Danbury, N. C.—At the election held Jan. 19 in Quaker Township, Stokes County, the question of issuing $50,000 in bonds was defeated. Noted Jan. 14.

+Quitman, Ga.—A contract for paving 25,000 sq.yd. has been awarded to the GULF PAVING CO., Chattanooga, Tenn. Noted Sept. 24.

Arcadia, Fla.—(Official)—Bids will be received until 2 p.m., Mar. 2, by A. L. Durrance, Clk., Circuit Court, for the sale of $210,000 in bonds for constructing roads and bridges in District No. 1.

De Land, Fla.—At the election held Jan. 13, the question of issuing $45,000 in bonds for paving the business streets and constructing a storm water sewerage system was defeated. Noted Dec. 5.

Houma, La.—The Road Commissioners of Terrebonne Parish contemplate constructing 125 miles of hard-surfaced streets.

Jennings, La.—The City Commissioners contemplate holding an election for the purpose of voting on the question of issuing bonds to gravel and pave streets.

Vanceburg, Ky.—The citizens of Lewis County, at a recent election, voted in favor of issuing $150,000 in bonds for building roads.

Wickliffe, Ky.—The citizens of Ballard County will vote Feb. 27 on the question of issuing $300,000 in bonds for improving roads.

Williamsburg, Ky.—The citizens of Whitley County contemplate holding an election about Apr. 1 to vote on the question of issuing $300,000 in bonds for constructing about 80 miles of road.

Bellaire, Ohio—Bonds for $30,627 were sold Jan. 25, the proceeds of which will be used for improving North Jefferson St. Noted Jan. 14.

+Cincinnati, Ohio—(Official)—A contract for constructing an approach from Clifton Pl. to the athletic field of the University of Cincinnati has been awarded by Daniel Lawrence, Clk., Bd. of Dir. of the University of Cincinnati, to the KIRCHNER CONSTRUCTION CO., Cincinnati, Ohio, at $11,720. Other bids were: Scully Bros., $11,921; Henkel & Sullivan, $11,951; Joseph A. Byrnes, $12,096; C. A. Danenhower, $12,991. Noted Jan. 14.

Cleveland Heights, Ohio—(Warrensville post office)—Bids will be received until noon, Feb. 15, by H. H. Canfield, Village Clk., 309 Beckman Bldg., Cleveland, for improving a section of Exeter Rd. F. A. Pease Engineering Co., Marshall Bldg., Cleveland, is Engr.

East View, Ohio—(Warrensville post office) — See item under "Water Supply-Irrigation."

Lisbon, Ohio—The Commissioners of Columbiana County contemplate an expenditure of $500,000 to improve roads.

Mansfield, Ohio—The Commissioners of Richland County contemplate constructing 35 miles of roads.

Navarre, Ohio—(Official)—The Village Council has engaged an engineer to prepare plans for paving Main and Canal St. with brick. Bonds will be issued and contract awarded in the spring. E. H. Garver is Village Clk.

Toledo, Ohio—Bids will be received until Feb. 16 by Charles J. Sanzenbacher, County Audr., for improving Lockwood Ave.

+Michigan City, Ind.—The contract for paving sections of Eighth, Fir and Felton St. has been awarded to W. B. HUTCHINSON, Michigan City. Noted Dec. 3 and 17.

Richmond, Ind.—(Official)—Bids will be received by the Board of Public Works until 10 a.m., Feb. 8, for improving William St.

Port Huron, Mich.—Press reports state that bids will be received until Feb. 11 by A. P. Ryan, County Clk., for constructing 3½ miles of Class E macadam road in St. Clair Township.

Saginaw, Mich.—Press reports state that an election will be held Feb. 17 to vote on the question of issuing bonds for constructing sidewalks and crosswalks.

Elgin, Ill.—Press reports state that Morgan Brightman, City Engr., will prepare plans for paving Porter Ave.

Reading, Ill.—At the election held Jan. 16 the citizens voted in favor of issuing $63,500 in bonds for building roads.

+Rhinelander, Wis.—A contract for constructing the Gogebic county line road has been awarded by the Commissioners of Oneida County to HICKS & BARBER, at $31,050.

Belle Plaine, Iowa—(Official)—Bids will be received by C. E. Greenlee, City Clk., until 3 p.m., Feb. 16, for constructing 32,500 sq.yd. of cement concrete or asphaltic concrete pavement and 23,000 ft. of concrete curb. The Iowa Engineering Co., Clinton, Iowa, is Engr.-in-Charge.

Carroll, Iowa—According to press reports bids will be received by J. A. Dougherty, City Clk., until 8 p.m., Feb. 9, for approximately 33,000 sq.yd. of paving.

Cedar Falls, Iowa—(Official)—Bids will be received until 7:30 p.m., Feb. 16, by the City Council for improving a number of streets. J. W. Milimek is City Clk. and C. H. Streeter is City Engr.

Townsend, Mont.—Bids will be received until 2 p.m., Mar. 3, by William C. Ragen, County Clk., for the sale of $22,000 in bonds, the proceeds of which will be used for improving roads.

+Belton, Tex.—A contract for constructing 40 miles of gravel road in District No. 7 has been awarded by the Commissioners Court of Bell County to M. W. TAYLOR, Belton, at $97,800. Noted Jan. 7.

Bryan, Tex.—At an election to be held Mar. 3 the citizens of Brazos County will vote on the question of issuing $400,000 in bonds for constructing roads.

Dickens, Tex.—At a recent election the citizens of Dickens County voted in favor of issuing $12,000 in bonds for constructing the county's share of the Fort Worth-Roswell Highway.

+Sulphur Springs, Tex.—A contract for paving 35,000 sq.yd. with brick has been awarded to THOGMARTIN & GARDINER, Fort Scott, Kan., at $76,747. Noted Dec. 31.

Waco, Tex.—At the election held Jan. 22 the question of issuing $15,000 in bonds for street paving was defeated. Noted Jan. 7.

Idabel, Okla.—At an election held recently the question of issuing $122,000 in bonds for constructing roads and bridges was defeated. Noted Oct. 29.

Pueblo, Colo.—According to press reports bids will be received by D. P. Gaymon, City Engr., until Feb. 15, for paving Main and Court St.

Sandpoint, Idaho—Press reports state the City Council contemplates paving Main St. at an estimated cost of $100,000.

Wenatchee, Wash.—Press reports state that the Commissioners of Chelan County contemplate improving Chelan County State Rd. No. 1. The estimated cost of the work is $83,000.

+Bakersfield, Calif.—The Board of Supervisors of Kern County has awarded a contract for paving a section of the Bakersfield-Taft Rd. between Bakersfield and the Old River Shore, to GEORGE S. BENSON & SON, at $45,998.

Brawley, Calif.—The City Trustees plan to pave a number of streets. C. J. Park is City Engr. and J. H. Stevenson, City Clk.

Gridley, Calif.—The City Trustees contemplate paving Kentucky, Hazel, Virginia, Georgia and Ohio St.

+Los Angeles, Calif.—The contract for improving Angelina Ave. has been awarded to W. A. KEEP, Alhambra, at $8983.

+Monrovia, Calif.—The contract for improving a section of California Ave. has been awarded to JAMES M. MONTGOMERY CO., Alhambra, Calif., at $9660.

Porterville, Calif.—Bids will be received until Feb. 8 by the City Trustees for asphalt paving work. Edward F. Halbert, Davis Blk., is City Clk.

+San Diego, Calif.—The contract for improving Fourth St. from B to Ivy St. has been awarded to the CALIFORNIA-ARIZONA CONSTRUCTION CO.

North Bay, Ont.—Press reports state an election will soon be held to vote on the question of issuing $60,000 in bonds for improving streets and roads.

INDUSTRIAL WORKS

Boston, Mass.—W. J. McDonald, 95 Milk St., contemplates the construction of a six-story factory.

Brockton, Mass.—Lockwood, Greene & Co., Arch. and Engr., First National Bank Bldg., Boston, are preparing plans for the construction of a four-story, 80x150-ft. warehouse for E. C. Hall & Co.

New Haven, Conn.—Plans are being prepared by Lockwood, Greene & Co., Arch. and Engr., First National Bank Bldg., Boston, Mass., for the construction of a two-story, 60x160-ft. factory for the Mysto Mfg. Co.

Norwich, Conn.—Plans are being prepared by Cudworth & Woodworth, 148 Main St., for the construction of a four-story factory on West Main St.

+Buffalo, N. Y.—The contract for the construction of a 1,000,000-bu. reinforced-concrete grain elevator for the Eastern Grain, Mill & Elevator Corporation has been awarded to the MONARCH ENGINEERING CO. Noted Jan. 21.

Buffalo, N. Y.—Plans have been prepared by Lockwood, Greene & Co., Arch. and Engr., First National Bank Bldg., Boston, Mass., for the construction of a four-story, 80x200-ft. factory for the Buffalo Meter Co. Noted Nov. 12.

New York, N. Y.—(Borough of Brooklyn)—S. A. Taggart, Arch., Municipal Bldg., New York, is preparing preliminary plans for the construction of a two-story laundry for the Kings County Hospital, Clarkson St., Flatbush. The estimated cost is $75,000.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by Otto M. Beck, Arch., for the construction of a five-story, 96x171-ft. fireproof warehouse on 11th Ave., between 27th and 28th St., for the Terminal Warehouse Co. The estimated cost is $60,000. John H. Lynch is Pres.

New York, N. Y.—(Borough of Queens)—The Everett Realty & Construction Co., Flatiron Bldg., Broadway and 23d St., New York, is representative for a company which plans to construct a 12-story, 150x175-ft. factory at Jackson Ave. and 10th St., Long Island City.

New York, N. Y.—(Borough of Queens)—Ole Harrison, Jamaica, L. I., is preparing plans for the construction of a one-story, 100x100-ft. garage on Poplar St., near Union Pl., Brooklyn Hills, L. I., for the Dillman Baking Co. The estimated cost is $10,000.

New York, N. Y.—(Borough of Richmond)—Plans are being prepared by Lockwood, Greene & Co., Arch. and Engr., First National Bank Bldg., **Boston, Mass.**, for the construction of two smelters. One will be one story, 75x300 ft., and the other one story, 50x300 ft., at Tottenville, S. I., for the Nassau Smelting & Refining Works.

Rochester, N. Y.—Plans are being prepared by Foster & Gade, Arch., for the construction of a five-story, 90x200-ft. warehouse on Canal St., for Brewster Gordon & Co., 43 North Water St.

+Paterson, N. J.—The contract for the construction of two factories at East 37th St. and 21st Ave. for the East Jersey Pipe Co., 50 Church St., New York, N. Y., has been awarded to the McCLINTIC-MARSHALL CO., 13-21 Park Row, New York, N. Y. The estimated cost is $100,000. Noted Sept. 24 and Oct. 22.

Trenton, N. J.—John A. Roebling Sons Co. plans to rebuild its plant, recently destroyed by fire with a loss of $2,000,000.

Altoona, Penn.—The Atlantic Refining Co. plans to construct a 52x80-ft., reinforced-concrete building at Altoona. The estimated cost is $20,000.

Philadelphia, Penn.—Day & Klauder, 925 Chestnut St., are preparing plans for the construction of an eight-story, 92x150-ft. factory at 11th and Brandywine St. for the Edwin J. Schoettle Co., 237 North Sixth St.

Pittsburgh, Penn.—The Logan Gregg Hardware Co. recently purchased a 91x116-ft. site at Anderson and Fayette St. The company plans the construction of an eight-story store and warehouse. The estimated cost is $200,000.

+Baltimore, Md.—The contract for the construction of a 50x50-ft. plant at 104 South Exeter St., for the Consolidated Beef & Provision Co., has been awarded to the WEST CONSTRUCTION CO., 23 Knickerbocker Bldg. The estimated cost is $25,000. Noted Nov. 19.

Baltimore, Md.—The Yellow Taxicab Co., 701 American Bldg., will construct a 100x150-ft. garage. The estimated cost is $65,000. William G. Nolting, 1012 Keyser Bldg., is Arch.

Charleston, W. Va.—The Becker Steel Co. plans to construct a $15,000 warehouse at Charleston. H. R. Warne is Arch.

+Dunbar, W. Va.—The Pavey Electric Co. has awarded the contract to W. T. MOORE, of the Dunbar Land Co., for the construction of a two-story, 175x200-ft. factory. The estimated cost is $30,000.

+Charleston, S. C.—The contract for the construction of a two-story, 100x300-ft. plant for the General Asbestos & Rubber Co. has been awarded to the FISKE-CARTER CONSTRUCTION CO., Greenville, S. C. The estimated cost is $50,000. Noted Jan. 21.

Augusta, Ga.—G. Lloyd Preacher, Arch., is preparing plans for the construction of a one-story, 80x120-ft. automobile assembling plant for the Lombard Works & Supply Co.

Macon, Ga.—Armour & Co., Chicago, Ill., will construct a three-story reinforced-concrete building at Macon, Ga. Robert C. Clark, care of Armour & Co., is Arch.

Jacksonville, Fla.—The Southern Cattle Co. plans the construction of an abattoir. The estimated cost is $25,000.

West Tampa, Fla.—(Tampa post office)—Plans have been prepared by William L. Redditt, Tampa, for alterations and an addition at Nassau and Howard Ave., for the Tampa-Cuba Cigar Co. The estimated cost is $25,000.

Anniston, Ala.—The Farmers' Union Warehouse Co. will construct a two-story reinforced-concrete grain elevator and warehouse. The estimated cost is $18,000. H. D. Breeding, 15 Watts Bldg., Birmingham, is Arch.

Birmingham, Ala.—H. D. Breeding, Arch., 15 Watts Bldg., is preparing plans for the construction of a reinforced-concrete grain elevator for the Western Grain Co. The estimated cost is $15,000.

Girard, Ala.—The Columbus Coca-Cola Bottling Co., Columbus, Ga., contemplates the construction of a bottling plant. The estimated cost is $10,000.

+Newellton, La.—The Newellton Elevator Co. has awarded a contract to H. G. RUSCHER, Natchez, Miss., for the construction of the foundation of its 50x72-ft. grain elevator. The estimated cost of the work complete is $12,000. Oscar Jones is Engr. Noted Dec. 31.

+New Orleans, La.—The Jefferson Construction Co. has awarded the subcontracts for the construction of the $1,000,000 cotton warehouses and terminal as follows: J. W. THOMPSON, cement; McCLINTIC-MARSHALL CO., 15,000 tons structural steel; AMERICAN SHEET METAL WORKS, sheet metal; CORRUGATED BAR CO., 31,600 tons corrugated bars; BARNES ELECTRICAL CO., electric installation; CREOSOTED WOOD BLOCK PAVING CO., 9000 creosoted piles; KRACKE & FLADERS CO., 6565 squares of three-ply built-up roofing. Noted Nov. 5, Dec. 24 and 31 and Jan. 7.

Bellevue, Ohio—Carl P. Klein has purchased a site for the Twine Iron & Steel Co. The company plans the construction of a 60x160-ft. factory.

Brewster, Ohio—The Wheeling & Lake Erie R.R. contemplates constructing repair shops. The estimated cost is $40,000. W. L. Rohbock, Cleveland, is Ch. Engr.

Lima, Ohio—The Lewis Bros. Mfg. Co., Rockford, will construct a plant on Union St. near Pearl St. The estimated cost is $50,000.

Grayling, Mich.—The Du Pont de Nemours Powder Co., Wilmington, Del., will construct a plant for the manufacture of alcohol and charcoal. The estimated cost is $150,000.

Chicago, Ill.—Plans have been prepared by George C. Nimmons, Arch., 122 South Michigan Ave., for the construction of a five-story addition for the Jewel Tea Co., 1327 Washington Blvd. The estimated cost is $200,000.

Argyle, Wis.—J. R. Law, Arch., Madison, is preparing plans for the construction of a fireproof garage and machine shop for Phillipson Bros. The estimated cost is $20,000.

New London, Wis.—The Wisconsin Seating Co. plans to construct a three-story, 48x80-ft. and a three-story, 40x40-ft. addition. J. Zaug is Supt.

Wausau, Wis.—Plans are being prepared by architects of the Department of Agriculture, Washington, D. C., for the construction of a $200,000 packing and cold-storage plant for the Farmers' Coöperative Packing Co., Wausau. D. Sauerhering, M. D., is Pres. Construction will begin about Mar. 1. Noted Jan. 14.

St. Paul, Minn.—The St. Paul Structural Steel Co. has been incorporated with a capital of $50,000. The company plans the construction of a manufacturing plant. Harry C. Palmer is Pres. and Thomas M. Comfort is Secy.

Kansas City, Mo.—The Campbell Baking Co. will construct a concrete bakery at 2939 Troost Ave. The estimated cost is $40,000.

Hillsboro, Tex.—The Marvel Mill Co. contemplates the construction of a grain elevator.

Sterling, Colo.—The Sterling Commercial Club will construct a canning factory at Sterling. The estimated cost is $50,000. C. B. Timberlake, George A. Henderson and Grant Brown are interested.

Seattle, Wash.—The Imperial Candy Co. plans to construct a five-story, 120x120-ft. factory. The estimated cost is $300,000. C. E. Roberts is Pres.

Portland, Ore.—The Commissioner of Public Docks plans to submit to the City Council a $900,000 bond issue, of which $500,000 will be expended for the construction of a municipal grain elevator.

Portland, Ore.—The Oregon Home Builders will construct a 1½-story warehouse on East Broadway near East 33d St. The estimated cost is $35,000.

Longbeach, Calif.—The Halfhill Tuna Packing Co. will erect a factory to cost about $50,000. Charles P. Halfhill is Secy. and Mgr.

Ontario, Calif.—The Southern California Canning Co. plans to expend $60,000 on improvements and additions to its canning plant on East State St. A. C. Harvey is Pres.

Ontario, Calif.—The Homer Motors Co., Los Angeles, plans the construction of a plant. The estimated cost is $100,000. Douglass Long and J. E. Meyer are officials of the company.

San Pablo, Calif.—The Steelite Co. contemplates the construction of a $10,000 plant for the manufacture of explosives.

+Fort Williams, Ont.—The contract for the construction of a 750,000-bu. grain elevator for the Ogilvie Milling Co. has been awarded to the BARNETT & McQUEEN CO., LTD. The estimated cost is $200,000.

FEDERAL GOVERNMENT WORK

Earthwork—New London, Conn.—Bids will be received by Maj. G. B. Pillsbury, U. S. Engineer office, New London, until 2 p.m., Mar. 1, for bank revetment on the Connecticut River.

Post Office—Stamford, Conn.—Supplementary bids for the construction of a post office at Stamford were received by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., as follows: Charles McCaul Co., Philadelphia, Penn., $115,295; Conners Bros. Co., New York, N. Y., $128,428; William H. Fissell & Co., New York, N. Y., $132,000; John Lowrie, Jr., New York, N. Y., $119,300; Lewis P. Fleuhrer Co., New York, N. Y., $135,025; William H. Egan, New York, N. Y., $134,721; George B. Wills & Co., New York, N. Y., $116,740; Oscawanna Building Co., New York, N. Y., $122,700.

+Repairs to Breakwater—Stonington, Conn.—The contract for repairing the breakwater in Stonington Harbor has been awarded to E. S. BELDEN & SON, Hartford, at $4850. Noted Dec. 3 and Jan. 21.

Repairs to Post Office—Utica, N. Y.—Bids will be received by W. M. Philleo, Custodian, U. S. post office, Utica, until Feb. 10, for making repairs to the post office.

Experiment Station—Pittsburgh, Penn.—Bids will be received by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p.m., Mar. 11, for the construction of the experiment station for the Bureau of Mines. The main building will be three stories of brick and concrete and the boiler house one story of concrete.

Repairs to Vessel—Baltimore, Md.—Bids will be received by the Lighthouse Inspector, until 2 p.m., Feb. 8, for repairing the light house tender "Maple."

★Sewer Construction—Washington, D. C. — Bids will be received by the Commissioners, District Bldg., until 2 p.m., Feb. 8, for the construction of sewers in the District of Columbia. Oliver P. Newman is one of the Comrs.

+Road—Alexandria, Va.—The contract for the construction of an experimental road on Mount Vernon Ave., in Alexandria County, has been awarded to the WILLIAM P. McDONALD CO., 38 Park Row, New York, N. Y., at $54,174. Noted Jan. 14.

Repairs to Vessel—Charleston, S. C.—Bids will be received by the Lighthouse Inspector, until 2 p.m., Feb. 10, for repairing light vessel No. 84.

★Jetty Work—St. Petersburg, Fla.—All bids received Dec. 30 for building a stone jetty at the entrance to St. Petersburg Harbor have been rejected. Noted Dec. 3 and Jan. 7.

Repairs to Vessel—New Orleans, La.—Bids will be received by the Lighthouse Inspector, until 2 p.m., Feb. 9, for docking and repairing the light house tender "Sunflower."

Repairs to Buildings—New Orleans, La.—Bids will be received by H. R. Stanford, Chief, Bureau of Yards and Docks, Washington, until 11 a.m., Feb. 27, for making repairs to certain buildings at the naval station, New Orleans.

Lock and Dam—Maysville, Ky.—The following are the bids received for constructing Lock and Dam No. 33, near Maysville: Dravo Contracting Co., Pittsburgh, Penn., $1,065,047; National Contract Co., Evansville, Ind., $973,734; Hardaway Contracting Co., Columbus, Ga., $1,047,825; Bates & Rogers Construction Co., Chicago, Ill., $972,544; T. A. Gillespie Co., Pittsburgh, Penn. Noted Dec. 31.

Fuel Flats and Barge—Cincinnati, Ohio—Bids will be received by Lieut. Col. H. Jervey, 405 Custom House, Cincinnati, until 2 p.m., Mar. 2, for constructing and delivering two steel fuel flats, Nos. 18 and 19 and one steel barge, No. 15.

Dredging—Toledo, Ohio—Bids will be received by Maj. P. S. Bond, U. S. Engineer office, Cleveland, Ohio, until noon, Feb. 25, for dredging in Toledo Harbor.

+Post Office—Gary, Ind.—The contract for the construction of a post office at Gary has been awarded to the CHARLES McCAUL CO., Philadelphia, Penn., at $98,103. Noted Dec. 3 and Jan. 21.

★+Reconstructing Pier—Michigan City, Ind.—The contract for reconstructing with piles and timber part of the east pier at Michigan City Harbor, has been awarded to BUCK, SMITH & NELSON, Muskegon, Mich., at $25,279. Noted Jan. 28.

Repairs to Vessel—Rock Island, Ill.—Bids will be received by the Lighthouse Inspector, Rock Island, until 2 p.m., Feb. 8, for making repairs and alterations to the light house tender "Goldenrod."

Post Office—Chanute, Kan.—Bids were received by Oscar Wenderoth, Super. Arch., Treasury Dept., for the construction of a post office at Chanute as follows: (a) limestone; (b) sandstone: John W. Pratt, Chanute, Kan., (a) $55,842; (b) $57,293; George W. Stiles Construction Co., (a) $54,640; Frank H. Latimer & Sons, Kansas City, Mo., (a) $58,663; Potter's Lumber Co., East Liverpool, Ohio, (a) $54,700; (b) $56,400; Hiram Lloyd Building & Construction Co., St. Louis, Mo., (a) $56,340; (b) $59,340; Volney E. Taylor, Huntington, W. Va., (a) $57,000; (b) $62,000; Newport Contracting & Engineering Co., Newport News, Va., (a) $58,109; Mayben & Freuchtel, Gadsden, Ala., (a) $50,790; (b) $52,590; Dieter & Wenzel Construction Co., Wichita, Kan., (a) $56,149; (b) $57,589; John Lof, Omaha, Neb., (a) $57,897; Bailey-Marsh Co., Minneapolis, Minn., (a) $56,800. Noted Dec. 24.

Post Office and Court House—McCook, Neb.—Bids were received for the construction of a post office at McCook, as follows: (a) stucco-faced building with limestone base and trimmings: (b) sandstone; (c) limestone-faced building (d) sandstone-faced building: M. Yeager & Son, Danville, Ill., (a) $103,966; (b) $109,316; (c) $112,919; (d) $118,269; F. P. Gould & Sons, Omaha, Neb., (a) $109,681; (c) $119,986; Campbell Building Co., of Utah, Salt Lake City, Utah, (a) $101,836; (b) $103,000; (c) $109,896; (b) $111,000; Bailey-Marsh Construction Co., Minneapolis, Minn., (a) $99,875; (c) $108,625; W. D. Lovell, Minneapolis, Minn., (a) $104,365; (c) $114,765; W. M. Sutherland Building & Construction Co., St. Louis, Mo., (a) $102,866; (c) $112,289; Dieter & Wenzel Construction Co., Wichita, Kan., (a) $102,000; (c) $112,000; King Lumber Co., Charlottesville, Va., (a) $111,000; (b) $116,000; (c) $120,000; (d) $130,000; C. E. Goodhand, Omaha, Neb., (a) $89,950; (c) $98,250; J. H. Wiese, Omaha, Neb., (a) $103,810; (c) $112,265; Hiram Lloyd Building & Construction Co., St. Louis, Mo., (a) $107,898; (b) $110,898; (c) $116,666; (d) $119,666; Walter Petersen, Omaha, Neb., (a) $102,559; (c) $114,995; J. E. & A. L. Pennock, Philadelphia, Penn., (a) $105,600; (b) $109,400; (c) $114,200; (d) $120,700; Volney E. Taylor, Huntington, W. Va., (a) $99,000; (b) $106,000; (c) $109,000; (d) $118,000; George W. Stiles Construction Co., Chicago, Ill., (a) $15,500; (c) $115,150. Noted Jan. 7.

+Post Office—Bozeman, Mont.—The contract for the construction of a post office at Bozeman has been awarded to the OLSON & JOHNSON CO., Missoula, Mont., at $62,575. Noted Jan. 14.

★Bridge—Great Falls, Mont.—The following are the bids received for erecting one highway and pipe bridge of two spans, each composed of three trusses, 97½ ft. long, for the St. Mary Storage Unit, Milk River Project: Central States Bridge Co., Indianapolis, Ind., $8066; East St. Louis Bridge Co., East St. Louis, Ill., $7625; Minneapolis, Bridge Co., Minneapolis, Minn., $7635; Vincennes Bridge Co., Vincennes, Ind., $8408; Minneapolis Steel & Machinery Co., Minneapolis, Minn., $7971; Chicago Bridge Iron Co., Chicago, Ill., $9084; Security Bridge Co., Billings, Mont., $9013 (for pin connected trusses); $11,016 (for riveted trusses); Des Moines Bridge & Iron Works, Des Moines, Iowa, $9790; Milwaukee Bridge Co., Milwaukee, Wis., $10,628; Midland Bridge Co. Kansas City, Mo., $10,713; U. S. Bridge Co., Great Falls, Mont., $11,821. The above bids are for delivery f.o.b. Browning. Noted Dec. 17.

Post Office—Ennis, Tex.—Bids were received for the construction of a post office at Ennis, as follows: (a) light-colored granite, local; (b) light-colored granite, other than local: Reveron Construction Co., Uniontown, Ala., (a) $53,815; (b) $54,908; Frank H. Latimer, Kansas City, Mo., (a) $56,480; Newport Contracting & Engineering Co., Newport News, Va., (a) $55,411; (b) $54,411; George A. Shaul, Seneca, Kan., (a) $56,251; (b) $56,251; Volney E. Taylor, Huntington, W. Va., (b) $51,450. Noted Dec. 24.

+Roof Work—Denver, Colo.—The contract for roof work on the post office and court house has been awarded to LOUIS VAN DORP, Topeka, Kan., at $7040. Noted Jan. 7 and 12.

+Post Office—La Junta, Colo.—The contract for the construction of a post office at La Junta has been awarded to the GEORGE W. STILES CONSTRUCTION CO., Rookery Bldg., Chicago, Ill., at $77,414. Noted Jan. 14.

+Buildings—Bremerton, Wash.—The contract for constructing three temporary ward buildings at the Puget Sound hospital, has been awarded to BERT WARD, Seattle, Wash., at $12,614. Noted Jan. 21.

+Locomotive Crane—Pearl Harbor, H. T.—The contract for furnishing two locomotive cranes for use in the Naval Station, Pearl Harbor, has been awarded by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., to the AMERICAN HOIST & DERRICK CO., St. Paul, Minn., at $13,939; and for three electric shop cranes at the same station to MANNING, MAXWELL & MOORE, New York, N. Y. at $9483. Noted Dec. 3. and 24.

MISCELLANEOUS

Broken Stone and Sand—Boston, Mass.—Bids will be received until Feb. 10 by L. K. Rourke, Comr. Pub. Wks., for furnishing broken stone, bank gravel and sand during the year 1915.

Fire Station—Milford, Conn.—Plans are being prepared by Brown & Von Beren, Arch., for a two-story fire station to be constructed on Factory Lane.

✚Roofing—New York, N. Y. — (Borough of Manhattan)—(Official)—The Department of Charities has awarded the contract for roofing work at Randall's Island to NEWMAN & SIEGLER, 98 East Seventh St., New York, at $10,595. Noted Jan. 21.

Stable and Section House—New York, N. Y.—(Borough of Brooklyn)—(Official)—The following bids were received Jan. 29 by the Borough President for the construction of a stable and section house at Ridgewood for the Street Cleaning Department: Brady-Oltarsh Construction Co., $59,470; J. Kressi Co., $60,700; Kelley & Kelley, $62,170; William Werner, $65,000; H. C. Stowe Construction Co., $66,170; Simon Russek, Inc., $67,390; William A. Eagan, $68,965, Marble Arch Co., $70,000; T. A. Clarke Co., 74,700. Noted Jan. 21.

★Floors—Hudson, N. Y.—(Official)—Bids will be received until 2 p.m., Feb. 12, by Mary Hinckley, Pres., N. Y. State Training School for Girls, for furnishing and laying new floors in Cottages Nos. 1, 2, 3 and 4. For details see advertisement under "Contracts to Be Let."

Motor Fire Apparatus—Camden, N. J.—The ordinance providing for a bond issue of $100,000 for motorizing the apparatus of the Fire Department, has been sent back to the Finance Committee because of defects. Noted Jan. 21.

Ferry Improvements—Elizabeth, N. J.—The Elizabethport & Staten Island Ferry Co. plans to make improvements and build additions to its slips and ferry houses at Elizabethport and Staten Island. An electric lift bridge will be installed at Elizabethport. The estimated cost is $40,000. P. G. Bassett is Supt.

Fire Station—Hoboken, N. J.—(Official) — The following bids were received Jan. 27 by the city for the construction of the fire station at Second and Jefferson St.: B. Vizzetti, $40,874; Andrew J. Phelan, $37,750; M. T. Connolly, $41,497; J. J. Egan, $39,000; Coma Construction Co., $42,500; G. DiKimp, $38,800; Limouze Bros., $38,849. Noted Nov. 26, Dec. 17, Jan. 7 and 14.

✚Shore Protection—Long Branch, N. J.—The contract for repairing jetties and constructing wooden cribbing has been awarded by the City Commissioners to THOMAS PROCTOR, Long Branch, at $28,246. Other bids were: McHarg, Barton Co., New York, $31,433; B. R. Simpson, Elizabeth, N. J., $55,603. Noted Dec. 31.

Market—Newark, N. J.—The following bids were received Jan. 29 by the city for the construction of the Center St. Market: Essex Construction Co., Newark, $560,700; W. G. Sharwell, $598,357; E. M. Waldron & Co., $605,506; Frederick Yeatzler, Inc., $633,000; Philip L. Mackinson, $648,400; W. H. & S. Cane, $654,788; Champ & Co., $663,174; Edward M. Waldron, Inc., $660,000.

✚Dredging—Baltimore, Md.—The Board of Awards has awarded the contract for general dredging in the harbor for the year to the MARYLAND DREDGING CO., at $40,000.

★✚Dredging—Baltimore, Md.—The Board of Awards has awarded the contract for dredging the channel from Lazaretto Light to the piers of the transatlantic liners to the COASTWISE DREDGING CO., Norfolk, Va., at $142,406. Noted Jan. 28.

★✚Levee—Augusta, Ga.—The River and Canal Commission has awarded the contract for the construction of Section 4, requiring 250,000 cu.yd. of filling and 30,000 cu.yd. of excavation, to C. E. TEAGUE, Columbia, S. C., at 14 and 16c. per cu.yd., respectively. Nisbit Wingfield is Ch. Engr. Noted Jan. 7.

✚Levee—Clarksdale, Miss.—The Yazoo Delta Levee Board has awarded the contract for the construction of 2,000,000 yd. of levee to FRANK T. CONSTANT, Alexandria, La. The estimated cost is $400,000.

Drainage District—Baton Rouge, La.—Press reports state that Mayor A. Grouchy, Jr., advocates the creation of a drainage district in the southern part of the parish. Estimated cost, $150,000.

✚Stadium Approach—Cincinnati, Ohio—The contract for constructing the approach to the stadium to be built on Carson Field has been awarded to the KIRCHNER CONSTRUCTION CO., Cincinnati, at $12,000.

✚Memorial Terrace—Put-In-Bay, Ohio—(Official)—The Stewart Engineering Corporation, general contractor for the construction of the Perry Memorial Terrace has awarded the contract for the necessary concrete piling to the MacARTHUR CONCRETE PILE & FOUNDATION CO., 11 Pine St., New York, N. Y. J. H. Friedlander and A. D. Seymour are Associate Archs. Boller, Hodge & Bayard is Consult. Engr. Noted Nov. 26.

✚Ditch—Milford, Ind.—The contract for the construction of the Omar Neff Ditch, Kosciusko County, has been awarded to YODER & SWARTZ, Nappanee. The estimated cost is $25,832.

Elimination of Grade Crossing—Flint, Mich.—An election will be held Feb. 17 to vote on a bond issue of $50,000 for the construction of a subway under the tracks of the Pere Marquette R. R.

✚Drydock—Chicago, Ill.—The American Shipbuilding Co., 2017 Superior Ave., Cleveland, Ohio, has awarded the contract for the construction of a 700-ft. drydock at South Chicago to the GREAT LAKES DREDGE & DOCK CO., at $325,000.

Drainage—Gibson City, Ill.—The Commissioners of Sangamon and Drummers Drainage District have had plans prepared for a drainage system for the city. The estimated cost is $36,700. C. F. Helman is Engr.

Drainage—Lewistown, Ill.—Charles E. Bradbury, Engr., Banner, Ill., is preparing plans for a drainage system in the North Liverpool Drainage District, Fulton County, comprising 2700 acres; also for the reclamation of 3700 acres lying between Liverpool dyke and the head of Thompson Creek.

★✚Drainage—Quincy, Ill.—The Fabius Drainage District has awarded the contract for levee work to the W. E. CALLAHAN CONSTRUCTION CO., Omaha, Neb., and for the construction of ditches to T. C. STEVENS CO., Des Moines, Iowa. The estimated cost of the two contracts is $300,000.

Ditches—Clintonville, Wis.—Bids will be received until 2 p.m., Feb. 12, by O. R. Schwantes, Clk., Dillow Valley Drainage Commission, for constructing ditches requiring 27,315 cu.yd. of earth excavation. N. H. Smith, Oshkosh, is Engr.

Park Improvements—Milwaukee, Wis.—The Board of Park Commissioners has commissioned Alfred C. Clas, Arch., to prepare plans for the construction of a reinforced-concrete grandstand, a 50x200-ft. reinforced-concrete and stucco clubhouse, and a two-span, steel trestle over the tracks of the Chicago & Northwestern Ry. Bids will be received about Feb. 15. Frank P. Schumacher is Secy., Bd. Park Comrs.

✚Ditches—Bemidji, Minn.—The following contracts have been awarded: For the construction of Judicial Ditch No. 23, 316,000 cu.yd. of excavation, JOHN C. PARKER, Bemidji, at $77,826; Judicial Ditch No. 26, 115,000 cu.yd., S. V. TOPPING, Spooner, Minn., at $35,000; Judicial Ditch No. 28, 200,000 cu.yd., KOHLER CONTRACTING CO., Frazee, Minn., at $55,943. Noted Jan. 7.

Ditches—Fairmont, Minn.—Bids will be received until Feb. 9 by H. C. Nolte, County Audr., for the construction of Judicial Ditches Nos. 28, 42 and 44. The estimated costs are $38,675, $22,064 and $13,131, respectively.

Ditch—Slayton, Minn.—Bids will be received until 10 a.m., Feb. 10, by E. V. O'Brien, County Audr., for the construction of Ditch No. 37. The main ditch will require 22,000 ft. of tile. Estimated cost, $16,588.

Park Improvements—Beaumont, Tex.—The City Council has adopted the recommendation of the Park Commission approving the plans of James F. Weed, Engr., for the improvement of Island Park. The estimated cost is $150,000. Noted Oct. 22.

Dikes and Drainage—Kelso, Wash.—Bids will be received until Feb. 9, by the Commissioners of Diking District No. 2, for the construction of dikes, levees and drainage ditches in District No. 2, Cowlitz County. The work includes the removal of 450,000 cu.yd. of earth. G. T. Hogg, Kelso State Bank Bldg., is Secy. Noted Dec. 17.

Ditches—Richland, Wash.—The Commissioners of Drainage District No. 7 are receiving bids for the construction of drainage ditches covering an area of 3760 acres. The contract calls for 115,000 cu.yd. of excavation.

✚Dikes—Tillamook, Ore.—H. F. Goodspeed has awarded the contract for the construction of 13,400 lin.ft. of dike and other miscellaneous work along the shore of Tillamook Bay to COLLIER & STEPHENSON, Salem, at 12c. per cu.yd. Noted Jan. 7.

Dredging—Eureka, Calif.—Bids will be received by the Board of Supervisors, Humboldt County, until Feb. 9 for dredging in Humboldt Bay. F. M. Kay, Eureka, is Clk. of Bd.

Pier—Redondo Beach, Calif.—Reports state that the city will soon vote on an issue of $121,000 in bonds for the construction of a municipal pleasure pier.

Dredge—San Diego, Calif.—The city plans to construct a dredge for use in deepening Mission Bay. Lawrence C. Fay is preparing the plans.

Elevators—San Francisco, Calif.—The Board of Public Works will receive bids until Feb. 10 for the installation of electric elevators and hydraulic lifts in the new City Hall. Frederick J. Churchill is Secy.

Levee and Ditch Work—San Francisco, Calif.—Bids will be received until Feb. 10 by C. W. Elfving, Secy., Reclamation District 1604, Stanislaus County, for the construction of levees and ditches.

Park Improvements—Berlin, Ont.—The City Council plans to make improvements at Victoria Park, estimated to cost $15,000. A. H. Miller is City Clk.

Barn—Toronto, Ont.—The Property Committee, Board of Control, plans to construct a cattle and grain barn at the Men's Industrial Farm. The estimated cost is $20,000. D. Chisholm is Property Comr.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Athol, Mass.—Plans are being prepared by Funk & Wilcox, 120 Boylston St., Boston, Mass., for the construction of two wings to the present school. Estimated cost, $50,000.

Boston, Mass.—Plans are being prepared for the construction of a hotel at Dartmouth St. and Columbus Ave. for Cornelius Keefe, 380 Massachusetts Ave. Estimated cost, $200,000.

Lawrence, Mass.—Bids will be received about Apr. 15 for the construction of a four-story school. Estimated cost, $250,000. James E. Allen, 283 Essex St., is Arch.

Salem, Mass.—Bids will be received until Feb. 15 for the construction of a five-story building for the Masonic Order. Estimated cost, $150,000. Lester S. Clough, Salem, and Little & Brown are Archs. Noted Oct. 29.

Worcester, Mass.—Plans are being prepared by Frank A. Kendall, 45 Bromfield St., for the construction of a four-story fireproof building on Main St., for the Merchants National Bank. Estimated cost, $500,000.

New London, Conn.—Preliminary plans are being prepared by Johnson & Burns, Hartford, Conn., for the construction of a four-story parish house on Washington St. for the First Baptist Church.

✚Manhasset, N. Y.—The contract for constructing a two-story school on Plandome Rd. has been awarded to THOMAS McHUGH. Estimated cost, $80,000. Noted Jan. 7.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received by C. B. J. Snyder, Supt. of School Bldgs., until 3 p.m., Feb. 8, for the general construction of public school No. 48, at Spofford Ave. and Coster St.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by Edward L. Larkin, Arch., 259 West 34th St., for the construction of a 22-story building at Eighth Ave. and 34th St., to be known as the Printing Crafts Bldg. Estimated cost, $2,500,000. Archibald D. Russell and Marie Campbell are owners.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., until 3 p.m., Feb. 15, for the general construction of school No. 93, at Forest Ave. and Woodbine St.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by the Board of Trustees, Bellevue Hospital, 415 East 26th St., until noon, Feb. 5, for making alterations to the main building of the Harlem Hospital, 136th St. and Lenox Ave.

New York. N. Y.—(Borough of Manhattan)—Preliminary plans are being prepared by McKenzie, Voorhees & Gmelin, Arch., 1123 Broadway, for the construction of a 30-story building on the site of the old John St. M. E. Church, 44 John St.

+New York, N. Y.—(Official)—(Borough of Manhattan)—The contract for the construction of the Arcade Bldg., 50 Broadway, for the Standard Oil Co., has been awarded to the CAULDWELL-WINGATE CO., 381 Fourth Ave.

New York, N. Y.—(Borough of Manhattan)—Bids will soon be received for the construction of an eight-story apartment house at 13 West 55th St., for the George Backer Construction Co., 56 West 45th St. Estimated cost, $200,000, Wallis & Goodwillie is Arch.

Niagara Falls, N. Y.—Plans are being prepared by Samuel Austin & Son Co., Cleveland, Ohio, for the construction of a five-story building on Main St. and Bellvue Ave. for A. M. Boffe, 1009 Garden Ave. Estimated cost, $75,000.

Schenectady, N. Y.—Bids will be received Mar. 1 by Walter E. Stephans, Arch., 152 Bassett St., for the construction of a seven-story, 52x110-ft. store and apartment building, for the A. B. Van Voost Co. Estimated cost, $100,000.

Syracuse, N. Y.—The Syracuse Masonic Temple Corporation contemplates the construction of a building on Montgomery St. Estimated cost, $150,000.

Utica, N. Y.—The Utica Board of Education contemplates the construction of a school, to cost $140,000. Frank R. Winant is Pres. of Bd.

Utica, N. Y.—Bids will be received for the construction of an addition to the high school. Estimated cost, $430,000. Agne Rushmer & Jennison is Arch. E. B. O'Dell, 77 Genesee St., is Chn. Bldg. Com.

Utica, N. Y.—Plans are being prepared for the construction of a school for the St. Patrick's R. C. Church. Estimated cost, $50,000. Rev. Nicholas Quinn, 619 Columbia St., is Pastor.

+Belleville, N. J.—The contract for constructing the proposed school at Washington Ave. and Holmes St. has been awarded to the ESSEX CONSTRUCTION CO., Newark, N. J., at $92,990. Noted Jan. 28.

Jersey City, N. J.—Preliminary plans are being prepared for the construction of an apartment house at Magnolia and Tonnele Ave. for F. L. Bergoff, 37th St., Bayonne, N. J. Estimated cost, $250,000.

Jersey City, N. J.—Harry J. Max, 112 Tonnele Ave., contemplates the construction of a three-story brick building. Estimated cost, $45,000.

Kenilworth, N. J.—Plans are being prepared by J. N. Pierson & Sons, Arch., 130 Smith St., Perth Amboy, for the construction of a two-story addition to the Borough School. Estimated cost, $40,000.

Morristown, N. J.—James J. Lyons plans to construct a 2½-story reinforced-concrete theater on Park St. Estimated cost, $60,000. Hyman Rosensohn, Newark, is Arch.

Macon, Ga.—Bids will be received soon by M. B. Medlack, Armour & Co. for the construction of the proposed Hotel Macon. Estimated cost, $50,000.

Lansford, Penn.—Preliminary plans are being prepared by the Board of Education for the construction of a two-story high school. Estimated cost, $150,000. W. G. Thomas is Pres. of Bd.

Windber, Penn.—Plans are being prepared by W. S. Powell, Arch., 220 Ohio St., Johnstown, for the construction of a two-story church. Estimated cost, $40,000.

Durham, N. C.—Plans are being prepared by Milburn Heister & Co., Arch., Union Savings Bank Bldg., Washington, D. C., for the construction of a building on Main St., for the First Presbyterian Church. Estimated cost, $80,000. E. R. Leyburn is Pastor.

Greensboro, N. C.—The Guilford County Commissioners contemplate the construction of a ten-story court house. Estimated cost, $200,000.

St. Petersburg, Fla.—Preliminary plans are being prepared for the construction of a high school. Estimated cost, $70,000. L. D. Childs is Secy., Bd. of Education.

Birmingham, Ala.—Plans are being prepared by H. B. Wheelock for the construction of a four-story, 55x182-ft. building on First Ave., between 18th and 19th St., for the Southern Land Co. Estimated cost is $50,000.

+Cleveland, Ohio—The Union Building & Improvement Co., 1836 Euclid Ave., has awarded the contract to A. B. LOOMIS, 2200 Denison Ave., for the construction of a six-story, 75x112-ft. addition to its building. G. A. Tenbusch, 1854 East 79th St., is Arch.

+Cleveland, Ohio—The contract for the construction of a one-story, 130x300-ft. building for the Museum of Art has been awarded to the CROWELL-LUNDOFF-LITTLE CO., 1951 East 57th St. The estimated cost is $1,000,000.

Willoughby, Ohio—(Official)—All bids received for the construction of a three-story high school have been rejected. New bids will soon be received. The estimated cost is $80,000. F. C. Warner, Hippodrome Bldg., Cleveland, is Arch. Noted Oct. 8 and Jan. 21.

Indianapolis, Ind.—(Official)—Wilbur T. Mills, Arch., Columbus, Ohio, advises us that bids will be received about Apr. 1 for the construction of a ten-story hotel. The estimated cost is $200,000. Noted Jan. 28.

+Detroit, Mich—The contract for the construction of a three-story, 40x138-ft. bank for the Detroit Trust Co., Penobscot Bldg., has been awarded to the A. A. ALBRECHT CO., 820 Penobscot Bldg. The estimated cost is $150,000.

Detroit, Mich.—The Board of Education has petitioned the Board of Estimate to appropriate $1,250,000 for the construction of seven, 20-room schools. Malcomson & Higginbotham, Moffat Bldg., is Arch. Charles P. Gadd is Secy. Bd. of Education.

Detroit, Mich.—The Simpson-Tabernacle M. E. Church plans to construct a building at Grand River Ave. and Sixth St. The estimated cost is $100,000.

Flint, Mich.—Plans are being prepared by Malcomson & Higginbotham, Arch., 405 Moffat Bldg., Detroit, for the construction of a school. The estimated cost is $70,000. George W. Cook is Pres., Bd. of Education.

+Grand Rapids, Mich.—The contract for the construction of a four-story building for the Grand Rapids National City Bank has been awarded to HAUSER, OWEN & AMES, 40 Pearl St. The estimated cost is $150,000. Noted Aug. 20.

Lansing, Mich.—A bill has been introduced into the legislature asking for an appropriation of $750,000 for the construction of a state building at Lansing.

Saginaw, Mich.—Plans are being prepared by C. Howard Crane, Ford Bldg., Detroit, for the construction of a theater for the Hippodrome Theater Co. Noted Jan. 14.

+Ypsilanti, Mich.—The contract for the construction of a two-story school has been awarded to H. G. CHRISTMAN CO., South Bend, Ind. The estimated cost is $100,000. Noted Sept. 3 and Nov. 19.

+Chicago, Ill.—The general contract for the construction of a three-story, 67x161-ft. hospital for the City of Chicago has been awarded to J. W. SNYDER, 122 South Michigan Ave. The estimated cost is $200,000.

Chicago, Ill.—The University of Chicago plans to construct a three-story gymnasium at 58th St. and Woodlawn Ave. The estimated cost is $250,000. Shepley, Rutan & Coolidge, 134 South La Salle St., is Arch.

Chicago, Ill.—According to press reports, work on the construction of the Union Station will be started about Mar. 1. J. J. Turner is interested.

Ottawa, Ill.—The Township High School Board will construct a high school on Main St., East Ottawa. The estimated cost is $200,000.

Woodlawn, Ill.—R. G. Ackley, of Ackley Bros., has purchased a 95x125-ft. site at Blackstone Ave. and East 63d St. The company plans the construction of a four-story fireproof building, to cost about $150,000.

Cudahy, Wis.—The Immel Construction Co., 200 North Main St., Fond du Lac, at $57,974, submitted the lowest bid on the general contract for the construction of a three-story school. Robert A. Messmer & Bro., Majestic Bldg., Milwaukee, is Arch. Noted Dec. 31.

Green Bay, Wis.—Bids will be received about Feb. 20 for the construction of a three-story, 45x120-ft. sanitarium on Webster St. for the Wisconsin Deaconess Hospital. The estimated cost is $50,000. P. T. Benton, 605 Minahan Bldg., Green Bay, is Arch.

Milwaukee, Wis.—See item under "Miscellaneous": Park Improvements.

Prairie du Chien, Wis.—The Directors of Campion College plan the construction of a three-story, 40x180-ft. dormitory. The estimated cost is $125,000. George R. Kister is Chn. Noted Oct. 8.

Racine, Wis.—(Official)—Guilbert & Funston, Arch., Robinson Blk., advises us that the contract for the construction of a two-story, 133x178-ft. school will be awarded Mar. 1. Noted Oct. 29 and Jan. 14.

Des Moines, Iowa—Plans have been prepared for the construction of a four-story, 70x80-ft. home for nurses at the Methodist Hospital. The estimated cost is $40,000.

Sioux City, Iowa—Bonds for the amount of $500,000 have been sold. The proceeds will be used for the construction of a court house. Noted Dec. 25, 1913 and Jan. 14, 1915.

Sioux City, Iowa—Press reports state that construction of the Lyon County courthouse will commence about Sept. 1. The estimated cost is $110,000. Noted Dec. 25 and Jan. 14.

Fertile, Minn.—Plans are being prepared by E. F. Broomhall, Arch., 710 Alworth Bldg., Duluth, for the construction of a school. The estimated cost is $50,000.

Minneapolis, Minn.—The lowest bid received for the construction of the $200,000 Biology Bldg. for the University of Minnesota was submitted by the Fleischer-Rose Construction Co., Plymouth Bldg., at $140,613. C. H. Johnston, 715 Capital Bank Bldg., St. Paul, is Arch. Noted Oct. 22 and Dec. 31.

Omaha, Neb.—John L. Kennedy plans to construct a building on 16th and Douglas St. The estimated cost is $200,000.

Kansas City, Mo.—Plans have been prepared by Keene & Simpson, Arch., for the construction of a clubhouse for the Hillcrest Golf & Country Club. The estimated cost is $50,000. D. W. Eaton is Secy.

+El Paso, Tex.—(Official)—The contract for the steel work for the $500,000 high school has been awarded to J. E. MORGAN, at $105,990. Noted Sept. 17, Dec. 10 and Jan. 21.

Colorado Springs, Colo.—The Directors of St. Stephens School for Boys will construct an addition at Austin Bluffs, four miles northeast of Colorado Springs. The estimated cost is $100,000. Ralph E. Boothby is Headmaster.

Los Angeles, Calif.—Plans have been prepared for the construction of a two-story, reinforced-concrete, Class A station on the east bank of the Los Angeles River near Seventh St. for the San Pedro, Los Angeles & Salt Lake R.R. The estimated cost is $260,000.

Sacramento, Calif.—Plans have been prepared by R. A. Herold, Arch., for the construction of a Masonic Temple at 12th and J St. The estimated cost is $200,000.

San Francisco, Calif.—The lowest bid received for the construction of a pathological building and garage at the San Francisco Hospital was that of James L. McLaughlin, at $78,990.

The General Equipment Co., 30 Church St., New York, has established a Philadelphia office in the Commercial Trust Bldg. E. G. Lewis is Mgr. of the Philadelphia office.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

Eastern Building Operations Gain

More favorable than was to be expected were the building returns for January. Important gains were made in Albany, Boston, New York, Springfield, Syracuse and St. Louis. The large falling off in San Francisco, Calif. was unimportant, the large operations there last year were unusual. In 23 cities in the Eastern States there was a gain of 12%. This is an important increase and the fact that it began in the East is taken to mean that a gradual improvement through the country may soon be expected; recession in business is usually first felt on the Atlantic seaboard and the first improvement in trade is likewise shown there. The falling off in 14 Southern cities was far less than expected.

Month of January

EASTERN STATES

	1915	1914
Albany, N. Y.	$340,290	$149,065
Baltimore, Md.	575,072	478,790
Boston, Mass.	5,602,591	4,247,015
Bridgeport, Conn.	98,110	127,295
Buffalo, N. Y.	381,000	536,000
Elizabeth, N. J.	82,314	47,872
Hartford, Conn.	139,265	256,887
Hoboken, N. J.	325,000	63,480
Jersey City, N. J.	137,800	88,500
Newark, N. J.	339,708	353,214
New Bedford, Mass.	75,560	368,964
New Haven, Conn.	132,155	264,320
New York, N. Y.—		
Manhattan	7,830,100	3,511,100
Bronx	2,072,250	1,316,850
Brooklyn	1,373,095	2,459,290
Queens	642,624	1,073,507
Paterson, N. J.	73,895	29,941
Philadelphia, Penn.	910,805	1,247,985
Pittsburgh, Penn.	465,461	1,171,037
Reading, Penn.	5,900	414,975
Rochester, N. Y.	246,717	354,320
Scranton, Penn.	38,170	101,925
Springfield, Mass.	266,005	162,520
Syracuse, N. Y.	219,715	68,700
Utica, N. Y.	53,600	43,600
Worcester, Mass.	77,276	530,184
Totals	$22,504,478	$19,467,336

CENTRAL STATES

	1915	1914
Akron, Ohio	$45,635	$138,150
Canton, Ohio	31,175	11,200
Chicago, Ill.	4,327,900	4,726,900
Cincinnati, Ohio	451,350	580,910
Cleveland, Ohio	1,116,080	1,298,620
Columbus, Ohio	85,100	178,740
Des Moines, Iowa	52,250	38,400
Detroit, Mich.	1,121,280	2,636,260
Evansville, Ind.	69,050	70,236
Grand Rapids, Mich.	80,072	341,240
Indianapolis, Ind.	266,907	482,342
Kansas City, Kan.	35,690	57,870
Kansas City, Mo.	387,880	884,265
Milwaukee, Wis.	203,649	342,858
Minneapolis, Minn.	485,100	504,505
Oak Park, Ill.	113,885	112,630
Omaha, Neb.	165,075	180,440
Peoria, Ill.	176,000	172,200
St. Louis, Mo.	1,094,673	854,122
St. Paul, Minn.	699,258	514,312
Toledo, Ohio	537,297	234,894
Youngstown, Ohio	73,250	69,367
Totals	$11,618,556	$14,430,511

SOUTHERN STATES

	1915	1914
Atlanta, Ga.	$273,796	$320,965
Birmingham, Ala.	72,178	250,230
Chattanooga, Tenn.	29,142	55,170
Dallas, Tex.	140,005	417,750
Ft. Worth, Tex.	90,705	179,265
Houston, Tex.	158,544	178,971
Louisville, Ky.	277,420	303,280
Memphis, Tenn.	101,953	361,390
New Orleans, La.	146,999	204,051
Norfolk, Va.	119,864	120,765
Richmond, Va.	159,840	189,704
San Antonio, Tex.	69,295	317,865
Tampa, Fla.	53,180	150,495
Washington, D. C.	470,328	461,760
Totals	$2,163,249	$3,511,661

WESTERN STATES

	1915	1914
Denver, Colo.	$177,635	$229,318
Los Angeles, Calif.	860,360	1,182,246
Oakland, Calif.	256,673	257,786
Portland, Ore.	372,690	444,600
Salt Lake City, Utah	85,650	121,850
San Diego, Calif.	269,425	365,085
San Francisco, Calif.	868,797	7,349,816
Seattle, Wash.	408,585	1,206,580
Spokane, Wash.	92,185	34,045
Totals	$3,392,000	$11,191,326

RAILWAYS

Virginia—According to press reports Channing M. Ward, Richmond, Va., is making surveys for the projected railroad to connect Newport News and Washington. C. T. Hobart, L. C. Steele and W. W. Terry, Norfolk, Va., are interested.

Virginia—Norfolk & Western Ry.—It is reported that this company will build tracks on the property of the Dupont Co. near City Point, Va.

West Virginia—Buckhannon & Northern R.R.—According to press reports surveys are being made by this company for the extension of its line from Fairmont to Clarksburg, W. Va., about 17 miles. S. D. Brady, Fairmont, W. Va., is Ch. Engr.

✚South Carolina—Southern Ry.—A contract for additional track construction at East Spartanburg and Spartanburg Junction has been awarded by this company to J. DAVIS POWELL, Columbia, S. C.

Florida—St. Johns & Southwestern Ry.—This company is being organized for the purpose of constructing 9 miles of road from Starke, Fla.

✚Louisiana — Vicksburg, Alexandria & Southern R.R. — This company has awarded a contract to F. T. CONSTANT, Alexandria, La., for building a yard and 3½ miles of side tracks.

Montana—Great Northern Ry.—It has been announced that this company plans to expend approximately $15,000 in improvements to its road bed in the vicinity of Eureka, Mont. Work will begin in the early spring. The embankment will be riprapped with logs between Fortine and Eureka. A. H. Hogeland, St. Paul, Minn., is Ch. Engr.

Texas—Galveston, Harrisburg & San Antonio R.R.—Surveys are being made by this company for the extension of its line from Beeville to Fowlerton, Tex., about 70 miles. W. B. Scott, Houston, Tex., is Pres.

Texas—Houston & Brazos Valley Ry.—This company contemplates building a line from Anchor to Bryanmound, Tex. T. G. Banks, Freeport, Tex., is Supt.

Idaho — Oregon Short Line R.R. — This company will complete lines from Menan to St. Anthony, and from St. Anthony to Lincoln. A tunnel 480 ft. long will be driven through the mountain at Gibraltar, on the Yellowstone line, and a new passenger station and yards will be built at Pocatello. Carl Stradley, Salt Lake City, Utah, is Ch. Engr.

Oregon—Poe & Deveraux, Eugene, Ore., contemplate the construction of a logging railway into the timber lands on Lost Creek. The line will connect with the Natron-Oatridge branch of the Southern Pacific Co.

ELECTRIC RAILWAYS

Buffalo, N. Y.—A franchise has been granted to the Frontier Electric Ry. Co. to extend its lines across Kenmore Ave., Main St. and intervening streets, Buffalo.

Clymer, N. Y.—The Columbus & Mayville R.R. Co. has asked the Council for a franchise in Clymer. The plans are for building an electric railway between Jamestown and Clymer.

New Rochelle, N. Y.—The City Council has been requested by the Trolley Committee of the City Club to grant the Westchester Electric Ry. Co. a franchise to build an electric line from Mount Vernon through Winyah Ave. to connect the end of the North Pelham line with North Ave., and to extend the Hudson Park double-track line along Franklin Ave. William B. Wheeler, 519 South Fifth Ave., Mount Vernon, is Supt.

Trenton, N. J.—An extension of the Hamilton Ave. line of the Trenton & Mercer County Traction Corporation into East Trenton is being urged by the citizens of Wilbur. William H. Hitchcock is Gen. Mgr.

McConnellsburg, Penn.—The McConnellsburg & Fort London Ry. Co. has applied for a charter to build an electric railway from McConnellsburg to Fort London, Penn. Edward J. Post and D. H. Patterson are among the incorporators.

Lynchburg, Va.—The Lynchburg Traction & Light Co. contemplates the extension of its line over the proposed viaduct across the James River to Madison Heights. J. W. Hancock, Lynchburg, is Gen. Mgr.

Newbern, N. C.—The Newbern-Ghent St. Ry. Co. will extend its electric railway in Newbern. C. J. McCarthy, Newbern, is Gen. Mgr.

Columbia, S. C.—The Columbia Ry., Gas & Electric Co. will lay new track on its Elmwood Ave. line. Alfred Wallace, Columbia, is Gen. Mgr. and Pur. Agt.

New Orleans, La.—A double-track railway is planned for the lower section of the city below Canal St. Charles Torreogrossa and Joseph F. Ebert, New Orleans, are interested.

Shreveport, La.—The Shreveport Traction Co. plans to build an extension from Waverly to South Highlands, about 1½ miles.

Jonesboro, Tenn.—The Tennessee Eastern Electric Co. plans to build an electric railway from Jonesboro to Johnson City, at a cost of $100,000. Jonesboro has appropriated $25,000 for the work.

Louisville, Ky.—Plans are being prepared for the Louisville & Interurban R.R. Co. for a seven-mile extension from Fort Creek to Mount Washington. T. J. Minary, 316 West Jefferson St., is Gen. Mgr.

East Linden, Ohio—The East Linden Electric Ry. Co. has been granted a franchise by the Commissioners of Franklin County for a line from the Leonard Ave. viaduct in Columbus to East Linden.

Youngstown, Ohio—The Youngstown & Southern Ry. Co. will double track its line from Youngstown to Southern Park. The Council will soon be requested to grant the franchise. David Tod is Receiver.

Murphysboro, Ill.—The Murphysboro & Southern Illinois Ry. Co. will try to obtain a franchise from the Mayor and City Council.

Wichita, Kan.—The Arkansas Valley Interurban Ry. Co. is considering plans to extend its lines to Hutchinson. The company also contemplates extensions to Great Bend, Larned and other towns, both north and west. Charles D. Bell, Wichita, is Supt.

Tulsa, Okla.—The Tulsa-Sand Springs Interurban Ry. Co. plans to extend its line to Owasso Lake.

Tulsa, Okla.—Charles Page, Tulsa, is reported interested in the construction of an electric interurban railway from Tulsa to Collinsville, about 16 miles.

Fresno, Calif.—A request has been made by the Fresno Interurban Ry. Co. to the City Council for a franchise over certain streets in Fresno.

Riverside, Calif.—The Board of Supervisors has been asked by Floyd Brown and associates for a 50-year franchise to build an electric railway along the county highway in Riverside. Bids on the franchise will be opened on Mar. 3.

Stellarton, N. S.—The Pictou County Electric Co., Ltd., Stellarton, is considering extending its line from Potiers Bridge to Pardale, about one-half mile. L. T. Flaherty, New Glasgow, N. S., is Mgr.

LIGHT, HEAT AND POWER

★Bath, N. Y.—(Official)—The following bids were opened Feb. 2 for alterations to the electric plant at the Soldiers' and Sailors' Home, Bath. Plans (A) and (B): New York Construction Co., 1328 Broadway, New York, (A) $3642, (B) $6533; Electric Development & Contracting Co., 817 Broadway, New York, (A) $3513, (B) $6842; T. Frederick Jackson Inc., 99 John St., New York, (A) $3560, (B) $6700; Edward Joy Co., Syracuse, (A) $4949, (B) $9443; Buffalo Electric Co., 555 Washington St., Buffalo, (B) $9350; Buffalo Electric Contracting Co., 29 Broadway, Buffalo, (A) $4800, (B) $11,100; Peter Keeler Building Co., Albany, (A) $3796, (B) $6604; Nelson Wait Dalton, Thompsonville, Conn., (B) $14,165; Wheeler & Crane Electric Co., Rochester, (A) $7800; Woolley-James Construction Co. Inc., Rochester, (A) $3381. J. E. Ewell is Commandant. Noted Jan. 14.

★Letchworth Village, N. Y.—(Thiells post office)—(Official)—Bids were opened Jan. 30 by the Board of Managers, Letchworth Village, for the construction of a power house, equipment for a central heating plant, heating plant for laundry building, and underground piping. The three lowest bids for each division of the work follow: Power house, Simon Russek Inc., $13,610; Harriman Industrial Corporation, $13,794; J. F. Growe Construction Co., $13,975. Heating plant equipment, Blake & Williams, $44,988; John W. Danforth Co., $49,344; W. B. Armstrong Co., $49,426. Laundry building heating plant, Gilles & Geoghegan, $8990; Blake & Williams, $9400; R. T. Ford Co., $9700. Underground piping, Blake & Williams, $18,290; W. B. Armstrong Co., $20,571; J. A. Almirall & Co., $21,638. Noted Jan. 14.

★Newark, N. Y.—(Official)—Bids will be received until noon, Mar. 4, by Henry H. Stebbins, M. D., Pres. Bd. of Trustees, New York State Custodial Asylum for Feeble Minded Women, Newark, for heating, plumbing and electric work for a cottage for 92 inmates, and for heating, plumbing, drainage and electric work for a hospital building at the Asylum. Lewis F. Pilcher, Capitol, Albany, is State Arch.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were opened Feb. 1 by the Superintendent of School Buildings for electrical equipment in new Public School 50, Driggs Ave. and South Third St., Borough of Brooklyn, as follows: T. Frederick Jackson Inc., $10,447; New York Construction Co., $10,626; Jandous Electric Equipment Co. Inc., $10,253; Eugene Frank, $11,093; Peet & Powers, $10,555; Electrical Development & Contracting Co., $10,734. Noted Jan. 28.

New York, N. Y.—(Borough of Queens)—(Official)—Bids were opened Feb. 1 for electrical equipment in new Public School 91, Central Ave., Glendale, Borough of Queens, from the following: T. Frederick Jackson Inc., $9660; Jandous Electric Equipment Co. Inc., $9268; Peet & Powers, $9555; New York Construction Co., $9372. Noted Jan. 28.

★West Haverstraw, N. Y.—(Official)—Bids will be received until 1 p.m., Feb. 16, by George Blagden, Pres. Bd. of Mgrs., New York State Hospital for Crippled and Deformed Children, West Haverstraw, for heating, plumbing, drainage, electric work and electric elevator for a new hospital building. Lewis F. Pilcher, Albany, is State Arch.

✚Newark, N. J.—The Public Service Electric Co. has awarded the contract for the construction of its power plant on the Passaic River at Point-no-Point to the BECKER CONSTRUCTION CO., Newark, at about $270,000. Noted July 2, 1914, and Jan. 14.

Camden, Tenn.—It is reported that the local electric-light plant, owned by J. S. Madrey & Sons, was recently destroyed by fire.

Dayton, Ohio—Press reports state that the Dayton Power & Light Co. has purchased a 32-acre site south of the city, upon which it will build a central plant. The company has recently acquired electric plants in Troy, Piqua, Wilmington, Osborn and Xenia, Ohio.

East Palestine, Ohio—The Board of Trustees of Public Affairs has been authorized by the City Council to purchase new equipment for the municipal electric-light plant. It is reported that the output of the plant is to be practically doubled. W. H. Van Fossen is Mgr., Supt. and Cont. Agt. of the plant.

Galion, Ohio—The Galion Iron Works & Mfg. Co. is preparing to add an electric power and light plant to its establishment on South St. Work on the building will begin, it is reported, as soon as weather conditions permit.

Lorain, Ohio—The City Council will hold a special election to vote on the question of establishing a municipal electric-light plant. George N. Damon is City Clk. Noted Nov. 19 and Jan. 14.

Garrett, Ind.—(Official)—Bids will be received until 8 p.m., Mar. 4, by the City Council, for one steam engine driven generating unit of 200-kva. capacity, three phase, 2300 volts, 60 cycles, with the necessary exciter, switchboard and other accessories. W. W. Mountz is City Clk.

Oxford, Mich.—Press reports state that the Edison Illuminating Co. of Detroit has submitted an offer to the City Council to purchase the municipal lighting plant of Oxford for $20,000.

Carbondale, Ill.—It is reported that the lowest bid received for the construction of a power plant at the State Normal University at Carbondale, was that of Urbauer & Atwood, 106 South 12th St., St. Louis, Mo. The building will be of brick, one story, 38x51 ft. The cost of plant and equipment will be about $40,000. Noted Jan. 14.

Wyocena, Wis.—The Board of Supervisors of Columbia County, Portage, has appropriated $15,000 for the construction and equipment of a central heat, light and power plant for the group of county buildings at Wyocena. A previous appropriation of $30,000 had been made for the construction of a new almshouse.

Larchwood, Iowa—It is reported that bids will be received shortly for the construction of an electric-lighting system. Bonds for the purpose were recently voted.

Sioux City, Iowa—It is reported that the Sioux City Gas & Electric Co. contemplates improvements, to cost about $50,000, to its plant and equipment. L. L. Kellogg, Sioux City, is Pres. and Mgr.

Osseo, Minn.—Bonds for $9000 have been issued, the proceeds of which will be used for the installation of a municipal electric-light plant. W. C. Buck, 4821 Fremont Ave. S., Minneapolis, is Engr.-in-Charge.

Winfield, Kan.—(Official)—Bids will be received until 5 p.m., Feb. 19, by the City Clerk for a 500-kw. turbo-generator, condenser and auxiliaries. Separate bids will be received at the same time for the installation of a switchboard.

Sentinel Butte, N. D.—It is reported that the Sentinel Butte Commercial Club is promoting arrangements for the installation of an electric-light plant for the town.

Stephens, Ark.—Press reports state that the Arkansas Power Co., Malvern, is considering the installation of an electric-light plant in Stephens. It is said that energy for the operation of the plant will be obtained from the Camden plant of the company. E. T. Reynolds is Mgr. of the plant at Camden.

Yale, Okla.—(Official)—See item under "Water Supply-Irrigation."

Fort Morgan, Colo.—The City Council contemplates the purchase of a 200-kva. alternating-current generator and engine for the municipal electric-light plant. George G. Cox is Supt. of the plant.

Roberval, Que.—It is reported that J. E. Thibault, Bagotville, Que., has prepared plans for a new electric-lighting system for Roberval. It is proposed to install sufficient equipment to furnish 600-hp. by developing a water power about three miles from the town.

Huntsville, Ont.—The Town Council plans to extend the present municipal lighting system at an estimated cost of $4000. G. Ralston is Mgr. of the plant. T. W. Cullom is Town Clk.

BRIDGES

Yarmouth, Maine—A resolution has been introduced into the legislature, asking for an appropriation of $12,366 to be used for rebuilding a bridge over the west branch of the Pleasant River in the town of Yarmouth. The bridge will be built under the supervision of the State Highway Commission.

✚Concord, N. H.—The Board of Public Works has awarded the contract for the construction of three bridges to the BERLIN CONSTRUCTION CO., Berlin, Conn., as follows: Federal Bridge, $20,625; Sewalls Falls Bridge, $14,318; Borough Bridge, $4075. The contract for the Main St. Bridge, Penacook, was awarded to the PENN BRIDGE CO., Beaver Falls, Penn., at $12,900. William B. Howe is City Engr.

Asbury Park, N. J.—It is reported that the Board of Chosen Freeholders of Monmouth County, Freehold, is considering the construction of a bridge over the Shark River in connection with state work on the new inlet at this point. The bridge will be about 225 ft. long.

South River, N. J.—It is reported that the Board of Chosen Freeholders of Middlesex County, New Brunswick, has approved plans for the construction of a bridge at South River. Alvin B. Fox, Perth Amboy, is County Engr.

★Philadelphia, Penn.—(Official)—Bids will be received until noon, Feb. 25, by M. L. Cooke, Dir. of Pub. Ser., for the construction of a concrete bridge to carry Broad St. over the joint four track railroad, South Philadelphia track elevation. For further information, see advertisement under "Contracts To Be Let."

Lawrenceville, Va.—(Official)—Bids will be received until noon, Feb. 19, by the Board of Supervisors of Brunswick County for the construction of a steel bridge over the Meherrin River about two miles south of Lawrenceville. W. T. Sledge is Clk. Bd. of Superv.

Bowling Green, Ky.—It is reported that the Warren County Fiscal Court is considering the construction of a new bridge over the Barren River.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Feb. 26, by the Board of Commissioners of Hamilton County for the construction of a concrete bridge on the Pottenger Rd., Colerain Township, Specification No. 731. Albert Reinhardt is Clk. of Comrs.

Cincinnati, Ohio—(Official)—We are advised by F. L. Raschig, Ch. Engr. Div. of Structures, Bd. of Pub. Ser., that bids for the construction of a reinforced-concrete arch at the Park Ave. entrance to Eden Park, over Kemper Lane, will not be advertised before the middle of April. The estimated cost of the structure is $165,000. Bids will be received by Philip Fosdick, Dir. of Pub. Ser. Noted Nov. 26 and Dec. 10, 1914.

Lexington, Ohio—(Official)—Bids will be received until noon, Feb. 16, by John A. Dalton, Audr. of Richmond County, Mansfield, Ohio, for the construction of the Black Bridge, one mile northwest of Lexington. C. L. Bushey is County Surv.

Lima, Ohio—The City Council has retained A. W. Grosvenor, Consult. Engr., Fort Wayne, Ind., to prepare plans for a new concrete bridge over the Ottawa River on Pine St. The estimated cost is $30,000.

Poast Town, Ohio—The Board of Commissioners of Butler County, Hamilton, has had plans prepared by F. M. Hammerle, County Engr., for the construction of a 130-ft. steel bridge over the Miami River at Poast Town. The estimated cost, including repairs to the abutments, is $7413.

✚Ecorse, Mich.—The Ecorse Township Board has awarded the contract for the construction of a bascule bridge over the Ecorse River at West Jefferson Ave. to the TOLEDO BRIDGE & CRANE CO., Toledo, Ohio, at $29,490. Noted Oct. 1 and 22, 1914, Jan. 7, 1915.

✚Atkinson, Ill.—(Official)—The Highway Superintendent of Henry County has awarded the contract for the construction of the Jerome Black and Lewis Bridges to the PORTER McCULLY CONSTRUCTION CO., at $4390. Noted Jan. 28.

✚Sorento, Ill.—(Official)—The County Superintendent of Highways has awarded the contract for the construction of the Mount Moriah Church Bridge to the EAST ST. LOUIS BRIDGE CO., East St. Louis, Ill. The contract for the Pence Bridge was awarded to HARLAN & BAUMBERGER, Greenville, Ill. Noted Jan. 28.

Green Bay, Wis.—The Common Council has accepted the plans of the Strauss Bascule Bridge Co., Chicago, Ill., for a new bridge over the East River at Main St. The Council has ordered the estimates of cost to be submitted at its next meeting. It is reported that bids will be asked as soon as possible.

Milwaukee, Wis.—It is reported that bids will be asked for the construction of the new State-Martin St. Bridge as soon as the War Department has finally approved of the plans. The estimated cost is $175,000. Plans were prepared by J. C. Pinney, Supt. of Bridges. Fred G. Simons is Comr. of Pub. Wks. Noted Apr. 9 and Jan. 7.

Shawano, Wis.—Bids will be received until 3 p.m., Feb. 23, by O. C. Rollman, Highway Comr. of Shawano County, for the construction of a 60-ft. skewed plate-girder bridge over Mill Creek, Town of Red Springs. Plans were prepared by M. W. Torkelson, State Bridge Engr., Madison.

Logan, Iowa—The Board of Supervisors of Harrison County has passed a resolution of necessity for the construction of nine bridges in the county. The estimated cost is $10,090. J. M. Albertson is County Audr.

✚Nevada, Iowa—(Official)—The Board of Supervisors of Story County has awarded the contract for the construction of 191 reinforced-concrete bridges and culverts and one steel bridge with concrete floor to PAUL N. KINGSLEY, Strawberry Point, Iowa, at $34,822. Other bidders were: Cole Bros., Ames, Iowa, $36,300; J. W. Hopp Construction Co., $41,403; Boone Construction Co., Boone, Iowa, $41,900; L. B. Child, Nevada, $37,108. Noted Jan. 28.

Leavenworth, Kan.—An election will be held Apr. 6 at which the citizens will vote on the question of a bond issue to be used for the construction of either reinforced-concrete or steel bridges over Three Mile Creek at Second and Third St. The estimated cost of the bridges, if of concrete, is $31,053, and if of steel, $21,371. Harry Perkins is City Engr.

Liberal, Kan.—(Official)—Bids will be received until noon, Feb. 23, by the County Clerk of Seward County for the construction of two wooden pile bridges over the Cimarron River. The Stout Bridge will be 210 ft. long, and the Edmonds Bridge will be 362 ft. long.

✚Marysville, Kan.—The Board of Commissioners of Marshall County has awarded the contract for the construction of 11 steel bridges in the county to the MISSOURI BRIDGE & IRON CO., at $6058. The contract for four concrete bridges was awarded to the TOPEKA BRIDGE & IRON CO., at $10,250.

Nebraska City, Neb.—Bids will be received until noon, Feb. 16, by the Clerk of Otoe County for bridge construction during 1915.

Nelson, Neb.—Bids will be received until 10 a.m., Mar. 3, by E. E. Hedgecock, Clk. of Nuckolls County, for the construction of a reinforced-concrete bridge over the Republican River. It will be composed of two 50-ft., two 55-ft. and one 60-ft. arches, 16-ft. roadway, concrete piers and abutments.

Nelson, Neb.—Bids will be received until noon, Mar. 3, by E. E. Hedgecock, County Clk., for bridge construction during 1915.

Billings, Mont.—Two bond issues, one of $32,000 and the other of $45,000, have been sold recently by the Commissioners of Yellowstone County. The proceeds will be used for building two bridges over the Yellowstone River. It is reported that bids will be asked at once for the construction of these bridges, and work will begin in the spring. H. E. Howell is Deputy County Clk. Noted Oct. 15 and 29, Nov. 19 and Dec. 17.

St. Louis, Mo.—Press reports state that the Missouri Pacific Ry. will soon begin the construction of a viaduct over its tracks at Chouteau Ave. The estimated cost of the structure is $315,000. J. R. Stephens, St. Louis, is Ch. Engr. Noted Jan. 14.

St. Louis, Mo.—Bids will be received until noon, Mar. 15, by the Board of Estimate and Apportionment, for the purchase of the $2,750,000 bond issue, the proceeds of which will be used for the completion of the Municipal Free Bridge over the Mississippi River. Noted May 14, Oct. 22, Nov. 12 and 26, 1914.

Little Rock, Ark.—The lowest bid submitted to the City Council for the completion of the Third St. Viaduct was that of N. Peay at $8054. Five other bids were received. H. Levinson is City Engr.

Austin, Tex.—(Official)—We are advised by John O. Johnson, City Clk., that no bids will be asked for the construction of a reinforced-concrete bridge over Shoal Creek at 10th St. The work will be done by city forces. M. C. Welborn is City Engr. Noted Jan. 21.

✚Fredericton, N. B.—The contract for rebuilding the bridge at the mouth of the Great Salmon River, Parish of St. Martin, has been awarded to L. B. SMITH, St. John, N. B., at $9275. John Morrison is Minister of Pub. Wks. Noted Jan. 14.

Ottawa, Ont.—(Official)—New plans for the construction of the Pretoria Ave. bridge are being prepared by the Strauss Bascule Bridge Co., 104 South Michigan Ave., Chicago, Ill., for a bridge of the company's patented type. New bids will be called for at a later date. F. C. Askwith is City Engr. L. McL. Hunter is Roadway Engr. Noted Oct. 22, Nov. 5 and Dec. 31, 1914.

✚Vancouver, B. C.—The Burrard Inlet & Bridge Co. has awarded the contract for the construction of the Second Narrows Bridge over the Burrard Inlet to C. A. P. TURNER and the WESTERN FOUNDATION CO., at $1,744,831. Ralph Modjeski, Chicago, Ill., is Consult. Engr. Noted Jan. 22, Feb. 12, Apr. 16, May 7, July 16 and Dec. 3, 1914.

WATER SUPPLY—IRRIGATION

Berlin, N. H.—The citizens contemplate constructing a water system. Daniel J. Daley is Mayor.

✚Boston, Mass.—Contracts have been awarded by the Supply Department for 6500 ⅝-in. meters to H. R. WORTHINGTON CO., 115 Broadway, New York, N. Y., at $32,175; for 350 meters to HERSEY MFG. CO., Boston, at $6239. Bids opened Jan. 27. Noted Jan. 21.

✚Boston, Mass.—The contract has been awarded to the GIBBY FOUNDRY CO., Boston, at 20c., 19c. and 15c. per pound for composition castings for the Water Department. Noted Jan. 21.

Shrewsbury, Mass.—(Official)—Bonds for $70,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system.

Sturbridge, Mass.—(Official)—Joseph La Flamme and two others have been appointed by the town to report on the installation of a water system.

Ellington, Conn.—The installation of an engine, tank and pump for emergency purposes is contemplated by the water works company, owned by F. M. Charter.

Barker, N. Y.—(Official)—Bids will probably be received in March for the installation of a water system. Charles C. Hopkins, Cutler Bldg., Rochester, in Engr. Noted Jan. 7.

★Lyons, N. Y.—(Official)—Bids will be received until noon, Mar. 3, by the Municipal Board for constructing a water system and a sewer system. H. F. Zimmerlin is Clk. For details see advertisement under "Contracts To Be Let."

✚Patchogue, N. Y.—The contract for driving a well at the new tuberculosis hospital has been awarded by the County Supervisors to P. H. & J. CONKLIN CO., Newark, N. J., at $4.85 for 8-in. pipe and $4 for 6-in. pipe.

Rochester, N. Y.—The Central Supply Co., Worcester, Mass., was low bidder for galvanized-iron pipe for the water department.

✚Troy, N. Y.—The contract has been awarded to the UNITED STATES CAST IRON PIPE & FOUNDRY CO., Philadelphia, Penn., at $20.20 per ton for 570 tons of class B 16-in. pipe, and $55 per ton for specials.

★Atlantic City, N. J.—(Official)—Bids will be received until Feb. 25 by the Board of Commssioners for one 18,000,000-gal. turbo-centrifugal pump for the Absecon pumping station. H. Bacharach is Dir. of Parks and Pub. Property.

Jersey City, N. J.—Henry Byrne, Comr., has recommended the construction of another pipe line to carry water from the Boonton reservoir to Jersey City. The estimated cost is $1,500,000. Charles A. Van Keuren is Ch. Engr. of the Water Dept.

Margate City, N. J.—(Atlantic City post office)—(Official)—Bids will be received until 4 p.m., Feb. 13, by the Board of Commissioners for one centrifugal pump with a capacity of 700-gal. per minute A. B. Repetto is City Clk.

Totowa, N. J.—(Paterson post office)—A contract has been signed by the Borough of Totowa with the Passaic Water Co. to furnish water to the town. A pipe line will be built.

South Boston, Va.—A committee has been appointed by the Mayor to consider the advisability of issuing bonds, the proceeds of which will be used for the installation of a water system, making extensions to the sewer system and for paving.

Winston-Salem, N. C.—The installation of a new 500,000-gal. filter has been recommended to the Board of Aldermen. Noted July 16.

Clearwater, Fla.—Bids will be received until Feb 17 by A. J. Brandon, Supt. of Pub. Wks., for 6500 ft. of c.-i. pipe and specials for the water department. Noted Jan. 14.

✚Key West, Fla.—The contract has been awarded to R. D. WOOD & CO., Philadelphia, Penn., for 1400 ft. of 14-in., 1200 ft. of 12-in. and 800 ft. of 10-in. bell and spigot c.-i. pipe at $23 per ton.

Gleason, Tenn.—An election will be held to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a water-works.

Sebree, Ky.—New bids will be received until Mar. 1 for the purchase of $14,000 in bonds, the proceeds of which will be used for the installation of a water system. Noted Dec. 31.

Akron, Ohio—Bids will be received until noon, Feb. 12, by C. P. Parker, Dir. of Pub. Ser., for 1075 water meters, 1050 stop cock boxes and 3400 corporation cocks.

Cleveland, Ohio—Bids will be received until noon, Feb. 24, by the Commissioner of Purchases and Supplies for constructing a coagulant house. Plans are on file with Charles F. Schultz, Comr. of Water Dept.

+East Liverpool, Ohio—The contract for the construction of a mechanical filtration plant has been awarded to CHESTER & FLEMING, Pittsburgh, Penn., at $300,000. Noted Nov. 19.

Ann Arbor, Mich.—(Official)—Bids will be received until 7 p.m., Feb. 15, by Manley Osgood, City Engr., for driving a well 16 ft. in diameter and 23 ft. deep and a test pump. Noted Dec. 10.

★Chicago, Ill.—(Official)—Bids will be received until 11 a.m., Feb. 25, by the City of Chicago for water meters. L. E. McGann is Comr of Pub. Wks. For details see advertisement under "Contracts To Be Let."

Hillsboro, Ill.—The Phillips Engineering Co., St. Louis, Mo., has been retained by the City Council to prepare plans for the installation of a water system.

Joliet, Ill.—(Official)—We have been advised that the city does not intend to construct a reservoir as was noted Jan. 21. C. D. O'Callahan is City Engr.

Mackinaw, Ill.—An election will be held Feb. 16 to vote on the question of issuing bonds, the proceeds of which will be used for the extension of the water system.

Paris, Ill.—According to press reports plans have been prepared by Fleming, Enger & Babbitt, University of Illinois, Urbana, for the construction of a water system. The estimated cost is $90,000. Noted Jan. 28.

Clintonville, Wis.—(Official)—Bids will soon be received by George C. Stewart, Supt. of Water-Wks., for the installation of a centrifugal pump at the water-works. Noted Jan. 21.

Janesville, Wis.—(Official)—The city will purchase the water-works at $265,000. Bonds will be voted, the proceeds of which will be used for the improvement of the system. C. V. Kerch is City Engr.

Two Rivers, Wis.—The Town Council will retain an engineer to make a survey of the water system and the Lake Michigan water-supply with a view to enlarging the supply. Either a 4000-ft. intake or additional shore wells will be constructed. E. Bruins is City Engr.

Summit, S. D.—Bonds for $8000 have been sold, the proceeds of which will be used for the installation of a municipal water system. Noted Oct. 1 and 15.

Fromberg, Mont.—The City Council will retain an engineer to prepare plans for the construction of a municipal water system.

Missoula, Mont.—The City Council is negotiating with W. A. Clark for the purchase of the water system. If the city does not purchase the water system, approximately $400,000 will be expended for the construction of a municipal water system. H. E. Rolfe is City Engr. Noted Aug. 6.

Chillicothe, Mo.—An election will be held Feb. 15, to vote on the question of purchasing the water system. If the proposition is carried, improvements will be made.

Donna, Tex.—(Official)—An election will be held about Apr. 1 to vote on the question of issuing $450,000 in bonds, the proceeds of which will be used for the extension of the Donna Irrigation District. D. H. Barr is Secy. Noted Jan. 28.

Mineola, Tex.—The State Attorney General has approved a bond issue for $24,500, the proceeds of which will be used for the construction of a water system.

+Sweetwater, Tex.—The contract for laying about six miles of c.-i. gravity conduit has been awarded to JOHN MOORE, Abilene, Tex., at $12,866. Noted Jan. 7.

Quinton, Okla.—According to press reports the Town Council contemplates the construction of a water system.

Redrock, Okla.—(Official)—At an election held Jan. 28 the citizens voted in favor of issuing bonds for $22,000, the proceeds of which will be used for the construction of a water system. Plans are being prepared by the Benham Engineering Co., Consult. Engr., Oklahoma. Noted Jan. 14.

Yale, Okla.—(Official)—Bids will be received until 8 p.m., Feb. 20, by E. A. Pierson, Clk., for making extensions to the water system and electric-light system. The estimated cost is $25,000 and $7000 respectively. D. B. Merry, Oklahoma, is Engr. Noted Jan. 21.

+Sterling, Colo.—The contract for pipe and specials for the extension of the water system has been awarded to HENDRIE & BOLTHOFF CO., Denver, at $5120.

Pocatello, Idaho—The Pocatello Realty Co. has applied to the Public Utilities Commission, Boise, for permission to construct a water system in the Fairview and Park additions. Noted Sept. 10.

Ogden, Utah—(Official) — Plans have been prepared by Washington Jenkins, City Engr., for making extensions to the water system. The estimated cost is $75,000. F. O. Stanford is City Recdr. Noted Jan. 21.

Seattle, Wash.—Bids will soon be received, according to press reports, by A. L. Valentine, Chn. Bd. of Pub. Wks., for laying water mains in Shilshole Ave. and in West 49th St.

Eugene, Ore.—The contract for the construction of a 2,500,000 gal. reservoir has been annulled. The work will be readvertised and bids will soon be received. A. Forneri is City Engr. Noted Oct. 8.

Portland, Ore.—Bids will soon be received by J. R. Wood, Pur. Agt., for 5000 tons of c.-i. pipe and specials for the water department. The estimated cost is $250,000.

Lancaster, Calif.—Press reports state that Edwin T. Earl, Los Angeles, will install pumping plants at his ranches for irrigation purposes.

Oakdale, Calif.—Bids will soon be received by the Oakdale Irrigation District for constructing canals and laterals. The estimated cost is $300,000. Noted Nov. 19.

San Fernando, Calif.—About $30,000 will be spent by the City Trustees for the improvement and extension of the water system. I. B. Funk, 516 Central Bldg., Los Angeles, is City Engr.

Santa Paula, Calif.—(Official)—Bids will probably be received Mar. 1 by the Pleasant Valley Mutual Water Co. for constructing a pumping plant and pipe line. The estimated cost is about $100,000. A. C. Hardison is Engr. Noted Jan. 21.

Brampton, Ont.—Plans are being prepared by William Treadgold, City Engr., for the laying of water mains in 15 streets this spring.

Ottawa, Ont.—Bids will be received until 4 p.m., Feb. 23, by the Secretary of the Water-Works Committee, City Hall, for brass work, pipe castings, c.-i. pipe, pig lead and valves.

Toronto, Ont.—Bids will be received by the Chairman of the Board of Control, City Hall, until noon, Feb. 16, for 24-in., 30-in. and 36-in. c.-i. special castings. Specification are on file at the Department of Works, City Hall.

Bassano, Alta.—Bids will soon be received by George Wingatwyd, Engr., for one 750-gal. turbine pump, 1100 ft. of 6-in. c.-i. pipe and 1200 ft. of 8-in. vitrified sewer pipe.

Saanich, B. C.—(Official)—Bids will be received until noon, Mar. 12, by Hector S. Cowper, Clk. of Municipal Council, for the construction of a water system. Noted Jan. 14.

SEWERS

+Boston, Mass.—Contracts have been awarded for cleaning catch basins in District No. 1 to JOHN W. COLLINS, at $9500, and in Districts Nos. 2 and 3 to MARK H. LYNCH, at $7700 and $6925, respectively.

Huntington, N. Y.—Bids will be received some time in March for constructing a sewer and sewage-disposal plant. S. E. Sammis is Town Clk. and George W. Fuller, 170 Broadway, New York, N. Y., is Engr. Noted Dec. 17 and Jan. 21.

★Lyons, N. Y.—(Official)—See item under "Water Supply-Irrigation."

+New York, N. Y.—(Borough of Manhattan)—(Official)—A contract for changing sewers in Park Ave. has been awarded to the MELROSE CONSTRUCTION CO., at $4830. Noted Jan. 21 and Feb. 4.

New York, N. Y.—(Borough of Queens)—An appropriation of $115,000 has been made by the Board of Estimate and Apportionment for the construction of sewers in Richmond Hill, Borough of Queens.

★Newark, N. J.—(Official)—Bids were received Feb. 2 by the Passaic Valley Sewerage Commission for constructing Section 18, southerly portion of the Main Intercepting Sewer, as follows, (A) river bank route, (B) tunnel route: James Ferry & Sons, Inc., Baltimore, Md., (A) $335,886, (B) $335,991; Mason & Hanger Co., Inc., New York, N. Y., (A) $204,286, (B) $195,390; New York & New Jersey Construction Co., Newark, (A) $191,894, (B) $212,400, and Charles A. Haskin, Boston, Mass., $187,392. Noted Jan. 14.

Farmington, W. Va.—The Board of Trade contemplates constructing sewer and water systems. Howard Coleman is Secy.

Morehead City, N. C.—According to press reports the J. B McCrary Co., Atlanta, Ga., is receiving estimates on materials for the construction of sewers and water mains. The estimated cost is $24,000. Noted July 16.

Columbia, S. C.—(Official)—Bids will be received until Feb. 29 by F. C. Wise, Engr., Sewerage Dept., for extending the sewer system. The estimated cost of the work is $85,000. John McNeil is City Engr. Noted Jan. 7.

+Columbia, S. C.—Contracts have been awarded to the HOPE ENGINEERING & SUPPLY CO., Pittsburgh, Penn., at $28,405, for constructing sewer and water mains and to LORICK & LOWRANCE, Columbia, at $5543, for sewer pipe. F. C. Wise is Engr. Noted Jan. 7 and 21.

+Hapeville, Ga.—The contract for constructing sewers has been awarded to CASE & COTHRAN, Chandler Bldg., Atlanta, Ga. Noted Sept. 17.

Clearwater, Fla.—Bids will be received until Feb. 17 by the city for constructing a sewer system, the estimated cost of which is $23,000. Plans are on file with J. N. Drew, City Engr. Noted July 9 and Nov. 19.

+★Manatee, Fla.—The contract for constructing a sewer system and a water system has been awarded to R. M. HUDSON, Atlanta, Ga. Frank J. Fagan is City Engr. Noted Nov. 19.

Mobile, Ala.—The city budget for 1915 includes an appropriation of $10,000 for the improvement of the sewer system. Wright Smith is City Engr.

Lexington, Ky.—White Guyn, City Engr., has recommended to the City Commissioners the extension of the North Side main sewer to North Limestone St. The estimated cost is $15,188.

★Lodi, Ohio—(Official)—Bids will be received until noon, Feb. 16, by G. C. Rice, Village Clk., for constructing a sanitary sewer system and sewage disposal plant. L .E. Chapin is Engr. Noted Dec. 10.

Bradley, Ill.—Plans are being prepared by the Etna Engineering Bureau, 17 North La Salle St., Chicago, for constructing a sewer system. The estimated cost of the work is $120,000.

East St. Louis, Ill.—The Board of Public Improvements contemplates constructing the Kansas-Division Ave. sewer, estimated to cost $10,284.

Beaver Dam, Wis.—According to press reports plans are being prepared by C. P. Parsons, Watertown, Wis., for constructing a sewer system.

+Racine, Wis.—The contract for constructing the 21st St. sewer has been awarded to E. R. HARDING CO., Racine, Wis., at $86,822.

Sisseton, S. D.—(Official)—Bids will be received until 2 p.m., Mar. 2, for constructing six miles of sewers and a sewage treatment plant. The Dakota Engineering Co., Mitchell, S. D., is Engr.-in-Charge.

Heber Springs, Ark.—The City Council contemplates constructing a sewer system.

Cleburne, Tex.—An election will be held Mar. 6 to vote on the question of issuing $180,000 in bonds for constructing a sewer system.

Drumright, Okla.—Press reports state that, at a recent election, the citizens voted in favor of issuing $20,000 in bonds for constructing sewers.

Pueblo, Colo.—(Official)—See item under "Streets and Roads."

+Moscow, Idaho—According to press reports a contract for constructing a three-mile extension to the present sewer system has been awarded to the WITTER-FISHER CO., Moscow.

+Bakersfield, Calif.—A contract for constructing clay pipe sewers in Districts 22 and 23 has been awarded to WILLIAM J. TOBIN, 735 Filbert St., Oakland, at $8285.

Corning, Calif.—(Official)—At the election held Jan. 12 the citizens voted in favor of issuing $24,000 and $60,000 in bonds for extending the sewer and water systems respectively. Noted Jan. 7.

+Los Angeles, Calif.—The contract for constructing a sewer in Denker Ave. between Slawson Ave. and 57th St. has been awarded to A. T. BRINK, at $9998.

Oakland, Calif.—Press reports state that the City Council contemplates constructing about four miles of sewers in the Leona Heights District. The estimated cost is $16,000.

Ontario, Calif.—(Official)—Bonds for $55,000 were sold Feb. 1, the proceeds of which will be used for constructing sewers. Noted Jan. 14.

+South Pasadena, Calif.—A contract for constructing a portion of the sewer system has been awarded to WATTSON & SPICER, Wright & Callender Bldg., Los Angeles, at $31,639.

St. Thomas, Ont.—Plans have been prepared by W. N. Ferguson, Engr., for the construction of a storm sewer system. The estimated cost of the work is $45,000.

Oak Bay, B. C.—The City Council contemplates an expenditure of $30,000 for constructing a sewer. F. W. Clayton is Clk.

GARBAGE

Manchester, N. H.—The Council has adopted the report of the Commission on Streets and Sewers recommending an appropriation of $150,000 for the construction of a garbage incinerator. Noted Sept. 24.

+Boston, Mass.—(Official)—The following contracts have been awarded by the Public Works Department for the collection of offal in East Boston, Brighton, West Roxbury and Hyde Park districts: (prices are per month) JOHN T. LANE CO., $585; P. J. REID CORPORATION, $490; JOHN NEWBURY, $265; CHARLES TATE, $117, respectively. Contracts were also awarded for the collection of ashes in East Boston, Brighton, West Roxbury, Dorchester and Hyde Park districts: ANGELO SILENO, $1035; A. J. & G. H. McMURTRY, $1070; M. McGINNIS & CO., $574; JOHN J. BRADLEY, $4394; THOMAS LOUGHLIN & CO., $324, respectively. Noted Jan. 14.

Saginaw, Mich.—Thomas Craney, Bay City, has petitioned the City Council for the privilege of erecting a garbage disposal plant and the contract for the city's work.

Rock Island, Ill.—Press reports state that the city is about to award the contract for the installation of a garbage incinerator. Noted Dec. 3.

STREETS AND ROADS

+Lockport, N. Y.—(Official) — Contracts for constructing county roads Nos. 14 and 15 have been awarded to F. J. MUNN CONTRACTING CO., 176 Best St., Buffalo, at $26,257 and $65,259, respectively. Noted Jan. 21.

New Rochelle, N. Y.—The City Council has voted to improve Hilltop Ave., St. Paul Pl. and Eastchester Rd.

+New York, N. Y.—(Borough of Brooklyn)—(Official)—The contracts for improving Front St. from Adams to Bridge St. and Hudson Ave. from Nassau to De Kalb St. has been awarded to W. J. SCANLAN CO., 1 Union Sq., at $12,186 and $32,407 respectively. Noted Jan. 24 and Feb. 4.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were received Feb. 4 by President of the Borough for regulating and regrading 155th St. from Broadway to Riverside Drive and for widening a section of Riverside Drive as follows: H. Britton, $37,617; W. A. Mitchell, $46,330; Beaver Engineering & Contracting Co., 51 Chambers St., New York, $39,552; S. Russell, Inc., $46,469; Rosenthal Engineering Co., $37,131; H. E. Fox Construction Co., $31,001; M. Di Menna, $23,650; J. Balaban, $37,697; P. J. Duffy, $38,947; N. Di Menna, $36,117; Burnside Contracting Co., $46,693; C. A. Meyers, $59,831; McHarg Barton Co., 171 Madison Ave., $47,613. Noted Jan. 28.

Rochester, N. Y.—The Common Council contemplates paving Syke St. and Culver Rd. with asphalt. Estimated cost, $80,000.

Stony Point, N. Y.—Bonds for $20,000 were sold, the proceeds of which will be used for constructing and improving roads.

Bayonne, N. J.—The City Council has approved a bond issue of $75,000 to be used for improving and repairing streets.

Newark, N. J.—According to press reports the Board of Street and Water Commissioners plans to pave sections of various streets with granite block and asphalt.

Trenton, N. J.—The State Road Department has made appropriations for road work in Mercer County as follows: River Rd., $33,750; Brunswick Pike, $13,000; White Horse Pike, $6500; Nassau St., Princeton, $5000.

Archbald, Penn.—Bids will be received some time in March by the City Council for brick paving and concrete curbing. The estimated cost of the work is $80,000. James F. Philbin is Secy. of the Council.

★Wilkes-Barre, Penn.—(Official)—Bids will be received until noon, Mar. 12, by Fred H. Gates, City Clk., for curbing and paving a number of streets.

Lovingston, Va.—The citizens of Lovingston Magisterial District of Nelson County will vote Feb. 28 on the question of issuing $30,000 in bonds for improving roads.

+Lynchburg, Va.—A contract for constructing 1.1 miles of concrete sidewalks has been awarded to JONES & MILLER, Lynchburg.

Pulaski, Va.—Bonds for $80,000 have been sold, the proceeds of which will be used for paving. Noted Sept. 10.

Moundsville, W. Va.—The Commissioners of Marshall County contemplate an expenditure of $50,000 for improving Fairmont Pike in Union District.

Wilmington, N. C.—Bids will be received until Feb. 20 by L. W. Moore, Comr. of New Hanover County, for constructing 7½ miles of clay-gravel roads. J. L. Becton, Wilmington, is Engr.

Orangeburg, S. C.—(Official)—Bids will be received until noon, Feb. 12, by the City Council for grading and paving Courthouse Sq., Church and South Broughton St. L. H. Wannamaker is City Clk. and Edward Howes, Jr., is City Engr.

+Baton Rouge, La.—The contract for improving roads in Road District No. 2 has been awarded by the Police Jury of East Baton Rouge to N. M. GEORGE, at $100,918.

Chattanooga, Tenn.—The Commissioners of Hamilton County will build a roadway on McCallie Ave. from Dodd Ave. to the Missionary Ridge tunnel. The estimated cost of the work is $14,000. L. B. Bryan is County Engr.

Jellico, Tenn.—Bids will be received until Mar. 2 by A. B. Mahan, Secy. County Road Comn., for the sale of $150,000 in bonds for constructing and improving roads.

Maryville, Tenn.—The citizens of Blount County will vote Feb. 13 on the question of issuing $300,000 in bonds for grading and macadamizing roads.

Arlington, Ohio—The City Council has voted in favor of improving Main St., at an estimated cost of $16,000.

+Barberton, Ohio—A contract for paving two streets has been awarded to PAUL & HENRY at $6500.

Berlin Heights, Ohio—Bids will be received until Feb. 20 by T. M. Elson, Township Clk., for the sale of $30,000 in bonds, the proceeds of which will be used for improving roads.

Bexley, Ohio—(Columbus post office)—At the election held Jan. 28 the citizens voted in favor of issuing $35,000 in bonds for improving roads. Noted Jan. 14.

+Cleveland, Ohio—The contract for improving the Eastern Blvd. has been awarded by the Board of Control to the WALSH CONSTRUCTION CO., Davenport, Iowa, at $9500.

East Youngstown, Ohio—Bids will be received until noon, Feb. 15, by C. R. Anderson, Village Clk., for improving Devitt St.

Lagrange, Ohio—Bids will be received until Feb. 13 by H. J. Ryan for improving the public square.

Middletown, Ohio—Plans will soon be prepared for paving South Main and North Main St.

Mount Gilead, Ohio—Bids will be received until noon, Mar. 5, for improving and macadamizing Benton and Blackbird Rd. in Morrow County. C. O. Higgins is County Audr.

Indiana—(Official)—Bids will be received for constructing roads in Indiana as follows:

Evansville, until 10 a.m., Feb. 25, by the Commissioners of Vanderburg County for constructing a rock road in Knight Township. C. P. Beard is County Audr.

Greensburg, until 1 p.m., Mar. 1, by the Commissioners of Decatur County for constructing roads in Sandcreek, Clay and Clinton Townships. Linton W. Sands is County Audr.

Salem until 1:30 p.m., Mar. 1, by the Commissioners of Washington County for constructing a road on Washington and Jefferson Township line. Ira H. Rutherford is County Audr.

Brownstown, until 2 p.m., Mar. 2, by the Commissioners of Jackson County for constructing a gravel road in Jefferson Township. George W. Stwalley is County Audr.

+Brazil, Ind.—A contract for constructing the Cooprider and Bemis Rd. has been awarded to CROUSE & SCHAUWECKER, Clay City, at $11,532 and $7641 respectively. Noted Jan. 14.

Evansville, Ind.—(Official)—No contract was awarded Feb. 4 by the Commissioners of Vanderburg County for constructing a rock road in Center Township. Noted Jan. 21.

+Rensselaer, Ind.—A contract for constructing a stone road in Carpenter Township has been awarded to W. F. SMITH & CO., at $9000.

Big Rapids, Mich.—The citizens of Mecosta County will vote Apr. 5 on the question of issuing $200,000 in bonds for road work.

Dundee, Mich.—Bids will be received until Feb. 23 by the Board of Village Trustees for improving Monroe St. George Champe, Toledo, Ohio, is Engr.

Lapeer, Mich.—Press reports state that the citizens of Lapeer County will vote Apr. 5 on the question of issuing $400,000 in bonds for constructing and improving roads.

Muskegon, Mich.—Plans are being prepared by Harry N. Beck, City Engr., for paving Beidler, Giddings and Erickson St.

Alton, Ill.—According to press reports plans are being prepared by J. E. Schwaab, City Engr., for paving the main streets of Upper Alton. The estimated cost is $300,000.

+Belleville, Ill.—The contract for paving in the Spring St. District has been awarded to HOEFFKEN BROS., Belleville, at $20,289.

+Champaign, Ill.—Contracts for paving West White and West Healy St. has been awarded to STIPES & PILCHER, Champaign, at $28,136 and $26,066 respectively. Noted Oct. 22.

Jefferson, Wis.—Bids will be received until 1 p.m., Feb. 20, by the Board of Public Works for improving Main, Milwaukee, First and Dodge St.

Wausau, Wis.—The City Council contemplates paving Forest St. and Grand Ave. with brick, at an estimated cost of $25,000.

West Liberty, Iowa—Bids will be received until Feb. 16 by the Town Council for paving Third, Fourth, Calhoun and Spencer St. Benton R. Anderson, West Liberty, is Engr.

+Edina, Mo.—A contract for paving 15,000 sq.yd. with brick has been awarded to the A. JAICKS CO. Noted Dec. 17.

Cameron, Tex.—The City Council contemplates improving various streets at an estimated cost of $15,000.

+San Antonio, Tex.—A contract for paving Hickman, Krempkau and Hess St. with concrete has been awarded to O. C. CHAPIN.

Victoria, Tex.—Press reports state that an election will soon be held to vote on the question of issuing $30,000 in bonds for improving streets.

Yoakum, Tex.—At a recent election, the people voted in favor of issuing $50,000 in bonds for constructing roads in the Yoakum precinct of De Witt County.

Pueblo, Colo.—(Official)—Bids will be received until Feb. 15 by D. P. Gaymon, City Engr., for constructing 104,000 ft. of curb and gutter, 197,000 sq.yd. of gravel pavement and 22,000 ft. of 10- to 36-in. sewers. Noted Jan. 7.

Pendleton, Ore.—Press reports state that the county road, Umatilla County, from German Hall to Cold Springs Landing, will be hard surfaced. The work covers 18 miles and is estimated to cost $15,000 per mile.

Portland, Ore.—According to press reports, an election will soon be held to vote on the question of issuing $1,000,000 in bonds for hard-surfacing 65 miles of road in Multnomah County. Plans are being prepared by John B. Yeon, Roadmaster.

Portland, Ore.—Bids were received for paving Front St. from Glisan to Park St. with basalt stone blocks, as follows: Jeffery & Bufton, $7932; Giebisch & Joplin, $8065; F. H. Howard, $8780; James Kennedy, $8384; Montague-O'Reilly Co., $8284.

+East San Diego, Calif.—According to press reports a contract for improving Thomas, Orange Ave., Achilles Drive, Anna, Klauber and other streets has been awarded to E. A. McALPIN, at $19,386.

+Los Angeles, Calif.—The contract for improving Elza Ave. from Minnehaha St. to Sunset Heights has been awarded to WATTSON & SPICER, at $5051.

Manhattan, Calif.—Bids will be received until 7:30 p.m., Feb. 17, by Charles E. Jenkins, City Clk., for improving Fifth, 14th, Center and 30th St.

San Bernardino, Calif.—Bids will be received until 11 a.m., Feb. 15, by L. R. Potty, County Clk., for the sale of $500,000 in bonds for improving highways.

Visalia, Calif.—The Commissioners of Tulare County contemplate an expenditure of $600,000 for constructing highways and bridges.

Dorval Station, Que.—Bids will be received some time in March by the Town Council for constructing bituminous macadam pavement.

Hamilton, Ont.—The City Council contemplates paving Charlton Ave. from James to Bay St. with asphalt, at an estimated cost of $9577.

Victoria, B. C.—The City Council contemplates an expenditure of $300,000 for paving various streets.

INDUSTRIAL WORKS

Lubec, Maine—Bids will be received about Mar. 1 for the construction of a three-story, 80x148-ft. reinforced-concrete factory for the American Can Co., Tenth Ave. and 14th St., New York, N. Y. The estimated cost is $60,000.

+Boston, Mass.—The contract for the construction of a building on Cottage near Dudley St., Roxbury District, for the Grocers' Baking Co., has been awarded to McDONALD & RIVELL, 155 Milk St. The estimated cost is $150,000. McFarland & Colby, 46 Cornhill St., is Arch. Noted Dec. 3.

Watertown, Mass.—(Official)—Walter J. Bitterlich informs us that the Hood Rubber Co. will construct a four-story, reinforced-concrete storage building.

Buffalo, N. Y.—Plans are being prepared by Condron Co., Engrs., 63 West Jackson Blvd., Chicago, Ill., for the construction of a four-story, 200x450-ft. assembling plant at Main St. and the New York Central R.R. Belt Line, for the Ford Motor Co. The estimated cost is $400,000. Noted Nov. 12.

Letchworth Village, N. Y.—(Thiells post office)—(Official)—The following bids were received for the construction of a laundry building: Simon Russek, Inc., $33,420; William H. Egan, $34,991; Harriman Industrial Corporation, $36,770; McCann Building Co., $38,700; Peter Keeler Building Co., $40,822; D. W. Dean, $41,175; Carleton Co., $41,540; J. F. Crowe Construction Co., $42,975; Nial Bros. Construction Co., $46,113. Frank A. Vanderlip, Letchworth Village, is Pres. Bd. of Mgrs. Noted Jan. 14.

Lockport, N. Y.—Plans are being prepared by James R. Tyler, Arch., Insurance Bldg., Rochester, for the construction of a two-story, 70x85-ft. addition to the Harrison Radiator Works. Oliver Diahl is Pres. Noted Nov. 12.

+Jersey City, N. J.—(Official)—The TURNER CONSTRUCTION CO., 11 Broadway, New York, N. Y., has been awarded the contract for the construction of a nine-story, 79x103-ft. reinforced-concrete extension to the warehouse on Bay St., for the Great Atlantic & Pacific Tea Co. Timmis & Chapman, 315 Fifth Ave., New York, N. Y., is Arch.

+Newark, N. J.—The Committee on Public Buildings has awarded the contract for the construction of the Center St. Market, to the ESSEX CONSTRUCTION CO., Newark, at $560,700.

+Newark, N. J.—H. M. DOREMUS CO., 36 Orange St., has been awarded the contract for making additions and alterations to the building on Ferry and Christie St. for P. Ballantine & Sons. The estimated cost is $20,000. J. W. Gulick, 58 Freeman St., is Supt.

+Baltimore, Md.—The contract for the construction of a 315x215-ft. warehouse for the Baltimore Gas Appliance & Mfg. Co., Bayard and Hamburg St., has been awarded to the B. F. BENNETT BUILDING CO., 123 South Howard St. Noted Dec. 24.

+Canton, Md.—(Official)—The TURNER CONSTRUCTION CO., 11 Broadway, New York, N. Y., has been awarded the contract for the construction of a two-story, 50x200-ft., reinforced-concrete building for the Standard Oil Co. of New Jersey.

Icard, N. C.—(Hickory post office)—The Icard Mfg. Co., recently incorporated with a capital of $125,000, will construct a 50x200-ft. factory.

Henderson, Ky.—(Official)—Brinton B. Davis, Arch., Louisville, informs us that construction will begin about Feb. 15 on the two-story, 80x140-ft. factory for the American Basket & Crate Co. The estimated cost is $25,000. Noted Jan. 28.

+Barberton, Ohio—Press reports state that the contract for the construction of a number of buildings for O. C. Barber, for the manufacture of cement, has been awarded to A. M. SCHOFIELD, Tenny St., Amherst. The estimated cost is $500,000.

+Cleveland, Ohio—The contract for the construction of a one-story, 100x120-ft. addition to the plant of Chandler Motor Car Co., East 131st St. and St. Clair Ave., has been awarded to BOLTON-PRATT CO., 902 Columbia Bldg. Ernest McGeorge, Leader-News Bldg., is Arch.

+Cleveland, Ohio—McCLINTIC-MARSHALL CONSTRUCTION CO., Oliver Bldg., Pittsburgh, Penn., has been awarded the contract for the construction of a one-story mill for the Empire Rolling Mills Co. The estimated cost is $500,000. Noted Dec. 10.

Ravenna, Ohio—Plans have been revised by George S. Rider & Co., Arch., 502 Century Bldg., Cleveland, for the construction of a two-story, 117x159-ft. and a one-story, 50x175-ft. dyehouse for the Cleveland Worsted Mills Co. The estimated cost is $200,000. G. H. Hodgson, 5900 Broadway, Cleveland, is Mgr.

Toledo, Ohio—The Banting Machine Co., was recently incorporated with a capital of $400,000. The company plans to construct a plant for the manufacture of threshing machinery. C. C. Banting J. F. Sanders and John Auxter are interested.

Chicago, Ill.—The Midland Warehouse & Transfer Co., 1929 West 43rd St., will construct a warehouse at 15th St. and the Chicago Junction Ry. The estimated cost is $600,000.

Milwaukee, Wis.—Bids are being received by Herman J. Esser, Arch., Camp Bldg., for the construction of a three-story, 40x140-ft. factory and warehouse at Mineral and Barclay St. for Seeboth Bros., 111 Reed St. The estimated cost is $35,000. Noted Jan. 28.

Milwaukee, Wis.—Bids will be received about Feb. 15 by Klug & Smith, Arch. and Engr., Mack Bldg., for the construction of a seven-story 75x130-ft. addition to the warehouse of John Pritzlaff Hardware Co., 33-67 West Water St.

St. Paul, Minn.—Plans have been prepared for the construction of a packing plant for the Farmers Terminal Packing Co. The estimated cost is $1,000,000. The American Society of Equity and F. A. S. Price, Mgr. of the Farmers' Coöperative Packing Co., La Crosse, Wis., are interested.

Wichita, Kan.—The Reed Self-Adjusting Weather Strip Co. will construct a 125x140-ft. plant at Pine St. and St. Francis Ave. The estimated cost is $25,000. U. G. Reed is Pres. and L. C. Tillotson, Sheetz Blk., Douglas Ave. and Market St., is Secy.

Layton, Utah—The Knight Sugar Co., Ltd., Raymond, Alta., will construct a factory near Layton. The estimated cost including machinery is $500,000. E. P. Ellison, Layton, is interested.

Kalama, Wash.—The Mountain Timber Co. plans to rebuild its plant recently destroyed by fire. The plant will have a capacity of 250,000 ft. per day. The estimated cost is $300,000. E. C. Strode, Lincoln, Neb., and Coy Burnett, Portland, Ore., are owners.

Kirkland, Wash.—The Washington Film Co., Washington Bldg., Seattle, has purchased a site and plans to construct a moving picture plant. The estimated cost is $25,000.

Seattle, Wash.—The California Paper & Board Mills, San Francisco, Calif., will construct a plant for the manufacture of box board. It will have a capacity of 20 tons and will cost about $250,000. C. H. Meyers, Seattle, is Representative.

+Los Angeles, Calif.—The contract for the construction of a one-story, 65x96-ft. reinforced-concrete building on North Main St. for the Los Angeles Brewing Co. has been awarded to the NATIONAL FIREPROOFING CO., Central Bldg., at $19,000. The entire cost is estimated at $30,000.

Los Angeles, Calif.—Plans are being prepared by W. J. Dodd, Arch., Marsh-Strong Bldg., for the construction of a four-story, reinforced-concrete warehouse on Bay St. for the H. R. Boynton Co. H. E. Bean, 717 Central Bldg., is Engr. The estimated cost is $100,000.

Los Angeles, Calif.—The California Fruit Growers' Exchange, 510 Battery St., San Francisco, plans to organize a subsidiary company with a capital of $100,000. The company will construct a plant for the manufacture of by-products from inferior citrus fruit. G. Harold Powell is Gen. Mgr.

Los Angeles, Calif.—The Southwestern Portland Cement Co., El Paso, Tex., plans to construct a plant at Los Angeles. The estimated cost is $400,000.

Los Angeles, Calif.—Plans have been prepared by George Low, Supervising Arch. of Los Angeles County, for the construction of a group of buildings for the County Hospital. The group includes a 50x150-ft. machine shop, a 56x150-ft. garage, a 50x150-ft. mill building and 50x150-ft. paint shop.

Oakland, Calif.—Bids will soon be received for the construction of a plant for the Shredded Wheat Biscuit Co., Niagara Falls, N. Y. Noted Sept. 10 and Oct. 29.

Sacramento, Calif.—(Official)—E. C. Hemmings, Arch., informs us that bids will be received about May 1 for the construction of a four-story creamery and salesroom on K near 15th St. Noted Jan. 21.

Kingston, Ont.—Davis & Co. plans to rebuild its tannery recently destroyed by fire. The estimated cost is $80,000.

Lindsay, Ont.—The plant of the Horne Bros. Milling Co., William and Bond St., which was recently destroyed by fire with a loss of $100,000, will be rebuilt.

Calgary, Alta.—J. C. Boyle plans to construct a reinforced-concrete and brick packing plant. The estimated cost is $1,000,000.

Knik, Alaska—Plans have been prepared by J. S. Arnot, Arch., L. C. Smith Bldg., Seattle, Wash., for the construction of a packing plant for the Deep Sea Salmon Co., L. C. Smith Bldg., Seattle. The plans include a 40x150-ft. warehouse. Estimated cost, $50,000.

FEDERAL GOVERNMENT WORK

Post Office—Brattleboro, Vt.—Bids will be received by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p.m., Mar. 22, for constructing a three-story brick and stone post office at Brattleboro. Noted Dec. 10.

Post Office—Greenfield, Mass.—Bids will be received by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p.m., Mar. 15, for the construction of a two-story brick and stone post office.

Gate Houses and Storehouse—Buffalo, N. Y.—Bids will be received by Col. J. G. Warren, Federal Bldg., Buffalo, until Feb. 20, for constructing six gate houses and a storehouse at the U. S. Ship Canal lock, Black Rock Harbor, Buffalo.

★**Motor Launch**—New York, N. Y.—Bids will be received by Col. W. M. Black, Room 710 Army Bldg., 39 Whitehall St., New York, until noon, Feb. 15, for constructing a motor launch.

★+**Dredging**—New York, N. Y.—The contract for dredging in the Hudson River Channel has been awarded to the MORRIS & CUMMINGS DREDGING CO., New York, N. Y., at $65,530. Noted Dec. 31.

Repairing Vessel—New York, N. Y.—(Borough of Richmond)—Bids will be received by J. T. Yates, Lighthouse Inspector, Tomkinsville, S. I., until 2 p.m., Feb. 24, for repairing U. S. Light Vessel No. 51.

Dredging—New Jersey—Bids will be received by Col. Frederick V. Abbot, Army Bldg., 39 Whitehall St., New York, N. Y., until Feb. 19, for dredging in Woodbridge Creek, Raritan Bay, and the Shrewsbury River, N. J.

Elimination of Grade Crossing—Washington, D. C.—Plans are being prepared in the office of the Commissioners of the District of Columbia for eliminating the grade crossing at Bennings, D. C., at an estimated cost of $110,000.

Building—Washington, D. C.—Plans are being prepared in the office of the Commissioners of the District of Columbia for the construction of the Parkview School, at an estimated cost of $132,000. Bids will be opened about Mar. 20.

Retaining Wall—Washington, D. C.—Bids will be received until 2 p.m., Mar. 3, at the office of the Superintendent of United States Public Buildings and Grounds, Washington, D. C., for the construction of a retaining wall along the West 16th St. side of Meridian Hill Park, between W and Euclid St., N. W.

Sewer Construction—Washington, D. C.—Bids will be received by the District Commissioners, District Bldg., Washington, until 2 p.m., Feb. 15, for the construction of sewers.

Floating Crane—Portsmouth, Va.—The date for receiving bids for furnishing the 150-ton floating revolving crane for the Norfolk Navy Yard has been extended from Feb. 13 to 11 a.m., Feb. 27.

★**Steel Lock Gates**—Wheeling, W. Va.—The following are the bids received for furnishing and erecting steel lock gates for Dam No. 15, Ohio River: C. A. Turner, Inc., Pittsburgh, Penn., $31,583; Union Foundry & Machine Co., Pittsburgh, $33,291; Whitehead & Kales Iron Works, Detroit, Mich., $39,941; Milwaukee Bridge Co., Milwaukee, Wis., $35,753; Independent Bridge Co., Pittsburgh, $29,098; Penn Bridge Co., Beaver Falls, Penn., $28,741; Alliance Structural Co., Alliance, Ohio, $30,091. Noted Jan. 7.

★**Dredging**—Wilmington, N. C.—Bids will be received by Maj. H. W. Stickle, U. S. Engineer Office, Wilmington, until noon, Mar. 9, for dredging in Neuse River waterway from Pamlico Sound to Beaufort Inlet and Beaufort Harbor.

+**Building**—Fort Leavenworth, Kan.—The contract for the construction of the library at Fort Leavenworth has been awarded to Y. B. YOKAM, Leavenworth, at $44,000. Noted Dec. 24 and Jan. 21.

Fence—Sully's Hill National Park (Devil's Lake post office), N. D.—Bids were received for the construction of a fence around Sully's Hill National Park, fence to be six miles long and to include gates and small enclosures inside, from: Enterprise Iron Works, Indianapolis, Ind., $10.23 per rod; Thomas Young & Sons, Devil's Lake, N. D., $3.687 per rod. Noted Jan. 21.

★**River Bank Protection**—St. Louis, Mo.—Bids will be received by Col. C. McD. Townsend, Custom House, St. Louis, until 11 a.m., Mar. 10, for constructing about 10,000 lin.ft. of river bank protection.

Wire Fence—Fort Sam Houston, Tex.—Bids will be received until 11 a.m., Feb. 25, by the Constructing Quartermaster, for constructing a woven wire fence around the military reservation.

Dredging—Port Aransas, Tex.—Bids will be received by Lieut.-Col. C. S. Riche, U. S. Engineer Office, Galveston, Tex., until noon, Mar. 3, for dredging at Port Aransas and on the channel from Aransas Pass to Corpus Christi, Tex.

★**Canal Excavation**—Grand Junction, Colo.—Bids will be received by the U. S. Reclamation Service, Grand Junction, until Mar. 10 for about 640,000 yd. of excavation in the vicinity of Grand Junction and Fruita, Colo.

★+**Canal, Etc.**—Olathe and Delta, Colo.—The contract for the construction of the lower Selig extension canal and laterals has been awarded to the REYNOLDS-ELY CONSTRUCTION CO., Springville, Utah, and GEORGE F. & R. E. WEAR, Delta, Colo.

★**Pumping Plant**—Seattle, Wash—Bids will be received by Maj. J. B. Cavanaugh, Burke Bldg., Seattle, until noon, Mar. 15, for furnishing a pumping plant for the Lake Washington Canal Locks.

★**Post Office and Court House**—Pendleton, Ore.—Bids will be received by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p.m., Mar. 25, for constructing a three-story stone, terra cotta and brick post office and court house at Pendleton.

Plate Girder Spans—Montrose, Calif.—Bids will be received by the U. S. Reclamation Service until Feb. 17 for furnishing, painting and erecting four plate girder spans, 70 ft. each, for the West Canal Works, Uncompahgre Valley Project.

Launch and Hulls—San Francisco, Calif.—Bids will be received by W. H. Hart, Depot Quartermaster, until 2 p.m., Feb. 17, (a) for one hull, (b) for two hulls, (c) for the completion of one hull, (d) for the completion of two hulls, (e) for the construction of one launch.

+**Dipper Dredge**—Panama—The contract for furnishing one dipper dredge has been awarded by the Panama Canal Commission to the BUCYRUS CO., South Milwaukee, Wis., at $375,000.

+**Locomotive Cranes**—Pearl Harbor, H. T.—The contract for furnishing two 15-ton locomotive cranes for the naval station, Pearl Harbor, has been awarded to the AMERICAN HOIST & DERRICK CO., St. Paul, Minn., at $13,939. Noted Jan. 28.

MISCELLANEOUS

★**Subway**—Boston, Mass.—(Official)—Bids will be received until noon, Feb 25, by B. Leighton Beal, Secy., Boston Transit Commission, for the construction of Section H. Dorchester Tunnel. The work will be cut and cover. For details see advertisement under "Contracts to Be Let."

Concrete Mixers—Holyoke, Mass.—(Official)—The Board of Public Works has under consideration and has asked for an appropriation of $15,000 for the purchase of new cement and asphaltic concrete mixers. T. J. McCarthy is City Engr.

Barge Canal Work—Albany, N. Y.—(Official)—The following bids were received Feb. 2 by the Superintendent of Public Works for the construction of a harbor dockwall and two breakwaters, Oneida Lake, Cleveland, N. Y.: Clarence E. Gruner, Albany, $30,995; Henry P. Burgard, Fulton, $31,084; Barrally & Ingersoll, Rochester, $32,332; Eastover Construction Co., Inc., Utica, $35,904; C. R. Stimpson, New York, N. Y., $36,805; John F. Dolan Contracting Co., New York, N. Y., $37,675.

Stadium—Buffalo, N. Y.—The Board of Councilmen has passed a resolution directing the Commissioner of Public Works to prepare reports on the probable cost of a stadium having a capacity of 50,000.

★**Greenhouses**—Ithaca, N. Y.—(Official)—Bids will be received until noon, Feb. 23, by E. L. Williams, Comptroller, Cornell University, for the construction of greenhouses and installing the heating plumbing and electric work at the New York State College of Agriculture.

★**Sanitary Work**—Rochester, N. Y.—(Official)—Bids will be received until 2:30 p.m., Feb. 18, by the State Hospital Commission, Capitol, Albany, for installing the sanitary work in the North Building of the Rochester State Hospital.

Station and Ferry Houses—Camden, N. J.—The City Council has approved plans of the Atlantic City Ry. for the construction of a 60x158-ft. temporary station and a 68x115-ft. ferry house. Fire recently destroyed the former buildings.

Fire Station—Edgewater, N. J.—The city plans the construction of a new fire station. The estimated cost is $12,000.

Fire Apparatus—Union, N. J.—(Official)—Bids will be received until 8 p.m., Feb. 15, by the Board of Councilmen for furnishing the fire department with new apparatus. Emil Bantz is Town Clk.

+**Stripping**—Nanticoke, Penn.—The Delaware, Lackawanna & Western R.R. Co. has awarded a contract to J. M. BURKE for stripping at the Bliss Colliery.

Drainage—Newbern, N. C.—R. R. Eagle, Engr., has prepared plans for the construction of a drainage system in the Newbern Drainage District, recently organized. The estimated cost is $20,000. George D. Dail is Secy.

Signal Towers—Pelham, N. C.—The Southern Ry., Washington, D. C., will install electric automatic block signals between Pelham and Denim, N. C., and 43 signal towers. W. H. Wells is Ch. Engr.

Drain—Parish, Fla.—Charles S. Hill, Engr., Palmetto, will finish the survey for the construction of the Gamble Creek Drain about May 15. Estimated cost, $125,000.

Wharf—St. Petersburg, Fla.—Bids will be received until Feb. 15 by the City Commissioners for the construction of a wharf parallelling the shore line of Dock No. 1.

Amusement Park—Anniston, Ala.—The Wall Amusement Co., Birmingham, is reported to be contemplating an expenditure of $50,000 to construct amusement devices at Oxford Lake and Hobson City Park including; roller coaster, miniature railroad, "razzle-dazzle" and remodeling hotel pavilion.

+**Ditch—Calhoun, Ky.**—The contract for the improvement of Porter's Ditch has been awarded to J. N. FORGY, Owensboro, at $12,777.

Bath House—Cincinnati, Ohio—Louis G. Dittoe, Arch., has been commissioned to prepare plans for the construction of a municipal bathhouse at 13th and Spring St. The estimated cost is $28,000.

+**Pier Reconstruction**—Michigan City, Ind.—The contract for the reconstruction of the east pier, Michigan City harbor, has been awarded to BURK, SMITH & NELSON, Muskegon, Mich., at $25,279.

+**Ditch**—Warsaw, Ind.—Contracts for the construction of the Mary White Ditch have been awarded to W. G. DILLINGHAM, at $4500 for dredging, and WALTER KLINE, at $5836 for tile.

★**Cement**—Springfield, Ill.—(Official)—Bids will be received until 11 a.m., Feb. 17, by the State Highway Commission for furnishing approximately 235,500 bbl. of cement for use in state road construction for the year 1915. William W. Marr is Ch. Engr. State Highway.

Steam Roller, Sweeper and Distributor—Edgerton, Wis.—The County Board of Supervisors has instructed the Highways Committee to purchase a steam road roller, oil distributor and revolving road sweeper.

+Crib Work—Milwaukee, Wis.—The Park Board has awarded the contract for constructing 1700 lin.ft. of protection cribbing along the lake shore from Wisconsin St. to Juneau Ave. to the E. GILLEN DOCK, DREDGE & CONSTRUCTION CO., Racine, at $59,840. Noted Jan. 14.

Creek Improvement—Duluth, Minn.—Plans have been prepared for changing the course of Mission Creek. Three reinforced-concrete bridges will also be constructed in connection with the work. Estimated cost, $25,772. John Wilson is City Engr.

Ditch—Olivia, Minn.—Bids will be received until Feb. 16 by the County Auditor for the construction of County Ditch No. 57. Estimated cost, $13,000.

+Ditch—Stillwater, Minn.—The contract for the construction of Judicial Ditch No. 4 has been awarded to SCHULTZ & BIECK, Clarion, Iowa, at $16,495. N. A. Nelson is County Audr. Noted Jan. 21.

Ditch—Walker, Minn.—Bids will be received until Feb. 15 by C. D. Bacon, County Audr., for the construction of Judicial Ditch No. 2. The work will include 290,961 cu.yd. of earth excavation in Hubbard, Cass and Wadena Counties. Estimated cost, $33,039.

Drainage—Kansas City, Kan.—Bids will be received until Feb. 26 by the Board of Directors of the Kaw Valley Drainage District for excavating about 1,000,000 cu.yd. of material in the channel of the Kansas River. T. E. Meyers is Pres. of the Bd. P. J. Broll is Secy.

River Improvements—Brookings, S. D.—Homer N. Derr, State Engr., Pierre, has completed a report on the straightening of the Sioux River west of Brookings. The estimated cost will be from $87,500 to $105,000, according to length and depth.

Drainage—Victoria, Tex.—Surveys have recently been completed for a drainage system in the Victoria County Drainage District No. 3, comprising 104 sq. miles. A bond issue of $200,000 will soon be voted on.

Pipe Line—Tulsa, Okla.—Press reports state that the McMann Oil Co., Tulsa, will construct an eight-in. pipe line from Cushing to Addington, Okla. The estimated cost is $1,000,000.

Drainage—Reno, Nev.—The farmers of the Truckee Meadow District have completed plans for the formation of a drainage district to drain 8000 acres of land. The estimated cost is $15,000.

+Dredging—Seattle, Wash.—Press reports state that the Port of Seattle Commission has awarded the contract for dredging and filling the canal waterway from Second to Ninth Ave. to the SEATTLE & LAKE WASHINGTON WATERWAY CO., at 18c. per cu.yd. About 150,000 cu.yd. will be removed.

Ferry Improvements—Seattle, Wash.—The Port of Seattle Commission has decided to change its plans concerning the West Seattle ferry house. A four-story headhouse will be constructed instead of two stories. The estimated cost is $40,000.

+Dredging—Tacoma, Wash.—The Inter-County River Commission has awarded the contract for dredging a seven-mile channel to CROSS, ROLLINS & CO., Seattle, at $250,000. It will be necessary to remove about 300,000 cu.yd. of material between Summer Highway bridge and the Indian School bridge. W. J. Roberts is Ch. Engr.

Crane and Dock Equipment—Portland, Ore.—The Commissioners of Public Docks have instructed G. B. Hegardt, Engr., to prepare plans and specifications for a 20-ton locomotive crane. It will be used at Municipal Dock No 1. The engineer has also been authorized to purchase equipment for Dock No. 2, which will be completed in March.

Wharf—Richmond, Calif.—Press reports state that bids will be received Feb. 15 by the City Council for the construction of Municipal Wharf No. 1. Estimated cost, $270,000. A. C. Faris is City Clk.

Wharf—Prince Rupert, B. C.—The Grand Trunk Pacific Co., according to press reports, contemplates the construction of a 150-ft. oil wharf.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

+Lynn, Mass.—The contract for the construction of a three-story addition to the English High School has been awarded to C. S. CUNNINGHAM & SONS CONSTRUCTION CO. Estimated cost, $175,000. Wheeler & Johnson, 137 Broad St., is Arch.

Tufts College, Mass.—(Boston post office)—The Board of Trustees of the Tufts College contemplates the construction of a chemistry building to cost $100,000.

+New Haven, Conn.—The contract for the construction of the Strong School has been awarded to LEWIS A. MILLER, at $109,300.

New Haven, Conn.—Plans have been prepared by L. W. Robinson, Arch., 42 Church St., for the construction of an addition to the office building of the Winchester Repeating Arms Co., Winchester Ave.

New York, N. Y.—(Borough of Bronx)—Goldner & Goldberg, 391 East 149th St., is preparing plans for the construction of a five-story apartment house at 178th St. and Prospect Ave., for the Jacob Bloom Realty Corporation, 1832 Clinton Ave. Estimated cost, $60,000.

New York, N. Y.—(Borough of Bronx)—Plans have been prepared by John P. Boyland, 2526 Webster Ave., for the construction of two five-story, 50x100-ft. apartment houses at College Ave. and 170th St., for the C. J. Casey Building Co., 1879 Southern Blvd. Estimated cost, $90,000.

New York, N. Y.—(Borough of Bronx)—Plans are being prepared by Harry T. Howell, 148th St. and Third Ave., for the construction of two five-story, 50x94-ft. apartment houses at Valentine Ave. and 184th St., for the Hargton Building Co. Estimated cost, $100,000.

New York, N. Y.—(Borough of Brooklyn)—Preliminary plans are being prepared for the construction of a new building for the Congregational Church of the Evangel, at Bedford Ave. and Hawthorne St. Estimated cost, $100,000. Albert E. Rorabach is Pastor.

+New York, N. Y.—(Borough of Manhattan)—The contract for the construction of a four-story, 134x186-ft. Y. M. C. A. building at Washington Ave. and 161st St., has been awarded to the CAULDWELL-WINGATE CO., 381 Fourth Ave. Estimated cost, $225,000. Noted Jan. 21.

New York, N. Y.—(Borough of Manhattan)—Jardine, Hill & Murdock, Arch., 3 West 29th St., is preparing plans for the construction of a 21-story store and loft building at 313 Madison Ave. for August Heckseher. Estimated cost, $350,000.

New York, N. Y.—(Borough of Manhattan)—Mayer & Mayer, Inc., 30 West 29th St., contemplates the construction of a 13-story apartment house at West End Ave. and 80th St.

New York, N. Y.—(Borough of Manhattan)—C. B. Meyers, 1 Union Sq., has prepared plans for the construction of a six-story, 44x93-ft. apartment house at 146 West 19th St., for the Charles J. Weinstein Realty Co., 17 West 120th St. Estimated cost, $50,000.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Moore & Landseidel, 148th St. and Third Ave., for the construction of two five-story apartment houses on St. Nicholas Ave. near 145th St., for James O'Brien, 647 Sixth Ave. Estimated cost, $100,000.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Abraham Berres, 1484 St. Marks Ave., Brooklyn, N. Y., for the construction of a six-story apartment house on St. Nicholas Ave. near 145th St., for the Placid Realty Co., 3785 Broadway. Estimated cost, $120,000.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by Clinton & Russell and Charles F. Post, Archs., 32 Nassau St., for the construction of a four-story, 44x115-ft. dormitory for female help at North Brothers Island. Estimated cost, $80,000.

New York, N. Y.—(Borough of Queens)—Albert Thompson, Arch., 1133 Broadway, New York, N. Y., is preparing plans for the construction of a building on Van Alst Ave., Long Island City, for the Degnon Contracting Co., 30 East 42nd St., New York. Estimated cost, $200,000.

★Newark, N. Y.—(Official)—Bids will be received until noon, Mar. 7, by Henry H. Stebbins, Pres. Bd. of Trustees, New York State Custodial Asylum for Feeble Minded Women, for the construction of a building. Lewis F. Pilcher, Capitol Bldg., Albany, N. Y., is State Arch.

Oyster Bay, N. Y.—Plans are being prepared by Morrell Smith, Bank Bldg., Far Rockaway, for the construction of an addition to the high school. Estimated cost, $75,000. John F. Birmingham, is Chn. Bd. of Education.

Saratoga Springs, N. Y.—Ludlow & Peabody, Arch., 101 Park Ave., New York, N. Y., is preparing plans for the construction of a two-story terminal building for the Hudson Valley R.R. Co. Estimated cost, $50,000.

Watervliet, N. Y.—Bids will be received by Demess, Mosley & Campaign, Troy, N. Y., for the construction of a three-story, 70x110-ft. City Hall at 15th St. and Broadway. Estimated cost, $45,000.

★West Haverstraw, N. Y.—(Official)—Bids will be received until noon, Mar. 4, by George Blagden, Pres. Bd. of Mgrs., New York State Hospital for Crippled and Deformed Children, for the construction of a building. Lewis F. Pilcher, Capitol, Albany, N. Y., is State Arch.

Jersey City, N. J.—Maximilian Zipkes, Arch., is preparing plans for the construction of a 100x150-ft. apartment house at Boulevard and Glenwood Ave., for the Zerman Realty & Construction Co. Estimated cost, $150,000.

Morristown, N. J.—Guilbert & Betelle, Arch., Newark, is preparing plans for the construction of a high school on Early Ave. Estimated cost, $168,000.

Union, N. J.—The Union Hill Turn Verein plans to rebuild the Turn Hall recently destroyed by fire.

Johnsonburg, Penn.—Clyde & Adams, Philadelphia, is preparing plans for the construction of a 150x200-ft. school. Estimated cost, $200,000.

Mt. Pocono, Penn.—The Directors of Mt. Pocono Hospital for Women contemplates the construction of a hospital near Mt. Pocono. Estimated cost, $100,000. A. J. Winebrake, M. D., Scranton, is interested.

Pittsburgh, Penn.—Bids will soon be received by the F. S. Schmeltz Co. for the construction of a three-story fireproof apartment house on Neville St. Estimated cost, $60,000.

Pittsburgh, Penn.—Plans are being prepared for the construction of a five-story fireproof building on Sandusky St. near Duquesne for Lodge No. 11, B. P. O. E. Estimated cost, $150,000. Frank P. Blackburn is Chn. of Bldg. Com.

Scranton, Penn.—John H. Howley, Arch., Traders Bank Bldg., is preparing plans for the construction of a one-story building for St. Michaels R. C. Church. Estimated cost, $40,000.

Scranton, Penn.—Plans are being prepared by John H. Howley for the construction of a two-story high school. Estimated cost $100,000.

Scranton, Penn.—(Official)—The Directors of the Scranton Life Insurance Co. contemplate the construction of an eight-story building at Adams and Spruce St.

Warren, Penn.—Plans are being prepared by Charles Wetmore, 16 East 42nd St., New York, N. Y., for the construction of a $100,000 library to be presented by J. P. Jefferson to the city.

Baltimore, Md.—The Northern Amusement Co. plans to construct a theater on North Ave. near Charles St. Estimated cost, $100,000.

+Charlotte, N. C.—The contract for the construction of a 100x600-ft. store and office building on West First between Church and Mint St., for E. D. Latta and J. B. Duke has been awarded to the TRAVERS-WOOD CO. Estimated cost, $250,000. Noted Apr. 30, 1914.

New Orleans, La.—The construction of a $150,000 office building for the Sewerage and Water Board is contemplated. George S. Earl is Gen. Mgr. of Bd.

+Vivian, La.—The contract for the construction of a two-story high school for Caddo Parish has been awarded to JONES & HERRINGTON, Hot Springs, Ark., at $60,000. Noted Jan. 28.

Louisville, Ky.—Preliminary plans are being prepared for the construction of the Kentucky Baptist Children's Home Estimated cost, $250,000. S. E. Tull pastor of the First Baptist Church, Paducah, is Chn. of the Com.-in-Charge.

+Louisville, Ky.—The contract for constructing a four-story, reinforced-concrete building at Brook and Market St. has been awarded to the ALFRED STRUCK CO. Estimated cost, $75,000. Joseph & Joseph is Arch. Noted Oct. 22.

Cincinnati, Ohio—The Board of Directors of the University of Cincinnati has had plans revised for the construction of a dormitory for women. The estimated cost is $150,000. Charles W. Dabney is Pres.

Cincinnati, Ohio—(Official)—Plans are being prepared by Elzner & Anderson, Arch., 136 Ingalls Bldg., for the construction of a Y. M. C. A. building. The estimated cost is $350,000. Noted Jan 21.

+Cleveland, Ohio—The contract for the construction of five buildings on East 105th St. near Hough Ave. for the Jewish Hospital has been awarded to the REAUGH CONSTRUCTION CO., 2835 East 51st St. The estimated cost is $400,000. Noted Aug. 27.

Cleveland, Ohio—Bids will soon be received by Walker & Weeks, Arch., 1900 Euclid Ave., for the construction of a bank and commercial building at East 79th St. and St. Clair Ave. for the Garfield Savings Bank Co. The estimated cost is $60,000.

+Columbus, Ohio—The contract has been awarded to the SELDON-BRECK CONSTRUCTION CO., East St. Louis, Ill., for the construction of the Deshler Hotel at Broad and High St. The estimated cost is $1,000,000. Wallick Bros., Broadway and 43d St., New York, N. Y., is lessee.

+Warren, Ohio—The Board of Education has awarded the contract to J. C. DAVIDSON, Columbus, for the construction of four ward schools, at $120,000.

Detroit, Mich.—(Official)—Bids will be received about Apr. 1 for the construction of a clubhouse at Cass Ave. and Lafayette Blvd. for the Detroit Lodge of Elks. Noted Jan. 28.

Chicago, Ill.—W. W. Kimball Co. is having plans prepared for the construction of a building at Wabash Ave. and Jackson Blvd. The structure will be 16 stories, 109x122 ft. The estimated cost is $2,000,000.

Chicago, Ill.—Construction will begin about May 1 on the $200,000 clubhouse at 174 West Washington St. for the Chicago Lodge No. 4 of the B. P. O. E.

Quincy, Ill.—Press reports state that the Illinois State Charities Commission plans to construct a hospital at the Soldiers' and Sailors' Home, Quincy. The estimated cost is $50,000. E. H. Ochsner is Pres.

+Madison, Wis.—(Official)—M. E. McCaffrey, Secy. of University of Wisconsin, informs us that the contract for the construction of the Soils Building has been awarded to T. C. McCARTHY, Madison, at $49,249. Other bids were received as follows: George R. K[illegible]chie, $52,873; Zenith Construction Co., $51,500; General Construction Co., $52,924; Appleton Construction Co., $54,616, Gray Construction Co., $53,580; A. D. and J. V. Frederickson, $54,655; Fleisher-Rose Construction Co., $52,246; Wisconsin Construction Co., $52,000; Gust Holm, $54,358. Noted Dec. 24 and Jan. 28.

Madison, Wis.—Bids are being received by Fred L. Kronenberg, Arch., for the construction of a school in the Elmside District. The estimated cost is $75,000.

+Milwaukee, Wis.—Frank M. Harbach, Secy., of Bd. of School Dir., awarded sub-contracts Jan. 28, for the construction of the Washington High School, as follows: RIESEN & RIESEN, University Bldg., masonry, $74,370; CONSOLIDATED STONE CO., cut stone, $31,886; ANTON J. RECHLIZ, sheet metal, $5763; AUGUST HOLSTEIN, carpentry, $45,290; WISCONSIN MANTLE & TILE CO., tile and marble, $36,900. The estimated cost is $365,000.

Missouri Valley, Iowa—Bids will be received about Mar. 1 by F. E. Colby, Arch., Sioux City, for the construction of a three-story, 90x140-ft. high school. The estimated cost is $80,000.

St. Paul, Minn.—(Official)—The Association of Commerce advises us that no action will be taken this year for the construction of a $500,000 home for working girls on Minnesota St. between 11th and 12th St. Noted Jan. 21.

St. Paul, Minn.—The Masonic Lodges of Minnesota will construct a home for old people. The estimated cost is $100,000.

Boston, Tex.—The Christian Endeavor Societies of the United States will begin construction, about Sept. 1, on the construction of an office building. The estimated cost is $500,000. Karl Lehmann, Boston, is Field Secy. and Francis E. Clark, Portland, Maine, is Pres.

+Temple, Tex.—The contract for the construction of a wing to the Atchison, Topeka & Santa Fé Ry. Employees Hospital has been awarded to H. D. McCOY, Cleburne. The estimated cost is $50,000. Noted Aug. 6 and Dec. 24.

+Seattle, Wash.—The contract for the construction of a two-story, 60x111-ft. building on Fourth Ave. and Seneca St. for the Northern Life Insurance Co. has been awarded to NEIL MacDONALD, Central Bldg. Estimated cost, $50,000.

Intercepting Sewer, Newark, N. J., Section 17—Central Portion

Bids were received Dec. 29, by the Passaic Valley Sewerage Commissioners, Newark, for construction Section 17, central portion, of the Main Intercepting Sewer from (A) Arthur McMullen, 149 Broadway, New York, N. Y.; (B) Cauldwell-Wingate Co., 381 Fourth Ave., New York, N. Y.; (C) Culp Co., Inc., Paterson, N. J.; (D) Fusco Construction Co., Newark, N. J.; (E) Merrill-Ruckgaber Co., 50 Church St., New York, N. Y.; (F) Harrison & Craig Co., Newark, N. J.; (G) Litchfield Construction Co., Newark, N. J.; (H) New York & New Jersey Construction Co., Newark, N. J. The item bids were as follows:

	A	B	C	D	E	F	G	H
2265 lin.ft. earth excavation and refilling, in trench, for 69-in. sewer	$41.00	$27.27	$32.03	$16.50	$22.00	$26.00	$16.30	$21.00
3307 lin.ft. earth excavation and refilling, in trench, for 65-in. sewer	32.50	22.75	32.03	17.00	22.00	16.30	16.30	18.00
390 lin.ft. excavation in earth, rock or earth and rock, in tunnel for 69-in. sewer	60.00	78.75	32.50	50.00	50.00	32.00	47.00	60.00
11,000 cu.yd. rock excavation in trench	1.00	2.00	0.01	4.00	1.50	2.75	2.50	0.01
4200 cu.yd. concrete masonry, in trench	8.00	8.60	6.00	8.50	8.00	8.00	8.50	9.00
500 cu.yd. concrete masonry, in tunnel	15.00	10.00	6.00	10.00	9.00	10.50	10.00	12.00
130 cu.yd. brick masonry in manholes	20.00	20.00	20.00	20.00	15.00	15.00	15.00	20.00
1000 lb. steel for concrete reinforcement	0.05	0.05	0.05	0.05	0.05	0.04	0.03	0.03
1000 ton rip rap	3.00	3.50	0.01	2.00	2.50	3.00	2.00	2.50
Extended totals	$281,492	$236,983	$222,116	$202,441	$201,184	$199,364	$181,334	$179,531

Lock and Dam No. 33, Maysville, Ky.

Bids were received Jan. 26 at the U. S. Engineer Office, Cincinnati, Ohio, for constructing Lock and Dam No. 33, in the Ohio River, near Maysville, Ky., from (A) Dravo Contracting Co., Pittsburgh, Penn.; (B) National Contract Co., Evansville, Ind.; (C) Hardaway Contracting Co., Columbus, Ga.; (D) Bates & Rogers Construction Co., Chicago, Ill.; (E) T. A. Gillespie Co., Pittsburgh, Penn. The item bids were as follows:

	A	B	C	D	E
4700 lin.ft. cofferdam, standard	$35.00	$30.00	$30.00	$29.00	$30.00
1500 lin.ft. cofferdam, modified (box type)	14.00	20.00	25.00	19.00	20.00
1500 lin.ft. cofferdam, modified (earth bank type)	14.00	20.00	25.00	17.00	20.00
1500 lin.ft. cofferdam, modified (combination type)	14.00	20.00	25.00	18.00	20.00
40,021 cu.yd. common excavation	0.85	0.50	0.50	0.55	0.85
61,235 cu.yd. fill	0.45	0.40	0.50	0.40	0.70
26,522 cu.yd. riprap	4.30	4.00	4.50	4.00	4.00
600 cu.yd. stone paving	7.00	6.00	5.90	6.00	5.00
140,190 lin.ft. round piles	0.40	0.40	0.40	40.00	0.50
1,463,150 ft. b.m. sheet piles	55.00	45.00	60.00	55.00	70.00
708,048 ft. b.m. common timber	65.00	60.00	60.00	52.00	90.00
250,480 ft. b.m. deck timber	60.00	60.00	60.00	52.00	90.00
72,426 ft. b.m. oak timber	120.00	80.00	125.00	100.00	130.00
254 cu.yd. reinforced concrete	15.00	15.00	25.00	15.00	15.00
46,936 cu.yd. concrete	6.65	6.25	7.00	6.50	8.00
3049 cu.yd. concrete paving	7.40	7.00	8.00	7.50	10.00
869,618 lb. structural steel	0.08	0.07	0.06	0.06	0.08
121,090 lb. reinforcing rods	0.06	0.07	0.06	0.05	0.05
51,150 lb. forgings (including w.i.)	0.08	0.07	0.07	0.06	0.08
131,804 lb. bolts, etc.	0.07	0.07	0.07	0.06	0.08
296,083 lb. iron castings	0.07	0.07	0.055	0.06	0.08
194,129 lb. steel castings	0.10	0.10	0.08	0.10	0.10
1319 lb. bronze	1.10	1.00	1.00	1.00	1.00
2338 lin.ft. pipe, 6-in.	4.70	3.00	3.00	2.75	3.00
2164 lin.ft. pipe, 4-in.	2.50	2.50	2.50	2.25	2.50
2702 lin.ft. pipe, 3-in.	1.75	2.00	2.00	1.75	2.50
555 lin.ft. pipe, 2-in.	1.00	1.50	1.50	1.00	0.75
590 lin.ft. pipe, 1½-in.	0.70	1.00	1.00	1.00	0.75
696 lin.ft. pipe, 1¼-in.	0.50	1.00	1.00	0.75	0.75
754 lin.ft. tile drain	1.00	1.00	1.00	1.00	2.50
Extended totals	**$1,065,047**	**$973,234**	**$1,047,825**	**$972,544**	**$1,192,080**

Portland, Ore.—The Portland Lodge, No. 291, Loyal Order of Moose, will construct a six-story, 68x100-ft. building at Fourth and Taylor St. The estimated cost is $125,000. George R. Funk is Chn. of Bldg. Com.

Berkeley, Calif.—Plans are being prepared by John Galen Howard, Arch, Architectural Bldg., University of California Grounds, for the construction of a four-story building near the University Library. The estimated cost is $800,000.

San Diego, Calif—The Cabrillo Club contemplates the construction of a seven-story building. The estimated cost is $150,000. W. H. A. Johnston is interested.

Susanville, Calif.—The County Supervisors plan to construct a courthouse. Estimated cost, $100,000. George McGow is Chn. of Bd.

Toronto, Ont.—The Masonic Lodge of Toronto plans to construct a Masonic Temple on Spadina Rd. The estimated cost is $400,000. W. D. McPherson is Grand Master.

INTERCEPTING SEWER, NEWARK, N. J. SECTION 18—SOUTHERLY PORTION

Bids were received Feb. 2 by the Passaic Valley Sewerage Commissioners, for construction Section 18, southerly portion, of the Main Intercepting Sewer, in open trench and tunnel, from (A) James Ferry & Sons, Inc., Baltimore, Md.; (B) Booth & Flinn, Ltd., New York, N. Y.; (C) New York & New Jersey Construction Co., Newark, N. J.; (D) Mason & Hanger Co., Inc., New York, N. Y.; (E) Charles A. Haskin, Boston, Mass. The item bids were as follows:

River Bank Route

	A	C	D
2308 lin.ft. earth excavation and refilling in trench for 65-in. sewer	$67.00	$38.00	$42.00
1040 lin.ft. excavation in earth, rock or earth and rock in tunnel for 65-in. sewer	115.00	51.00	55.00
100 cu.yd. rock excavation in trench	5.00	3.00	3.00
2000 cu.yd. concrete masonry in trench	12.00	10.25	10.50
1200 cu.yd. concrete masonry in tunnel	15.00	14.00	13.50
100 cu.yd. brick masonry in manholes	20.00	15.00	16.00
1000 lb. steel for concrete reinforcement	0.05	0.05	0.05
2000 ton rip-rap	4.00	1.00	2.50
Special steel and timber sheeting and shoring betweens tation 17+25 and station 18+05 (lump sum)	9100.00	10,000.00	6000.00
Extended totals	$335,886	$191,894	$204,286

Tunnel Route

	A	B	C	D	E
695 lin.ft. earth excavation and refilling in trench for 65-in. sewer	$82.00	$60.00	$40.00	$42.00	$27.50
2700 lin.ft. excavation in earth, rock or earth and rock in tunnel for 65-in. sewer	82.00	70.00	48.00	45.00	48.00
100 cu.yd. rock excavation in trench	0.01	3.00	3.00	3.00	5.00
600 cu.yd. concrete masonry in trench	15.00	12.00	11.00	9.50	8.50
3100 cu.yd. concrete masonry in tunnel	15.00	15.00	15.00	12.00	10.00
100 cu.yd. brick masonry in manholes	20.00	18.00	15.00	16.00	20.00
2000 lb. steel for concrete reinforcement	0.05	0.05	0.05	0.05	0.04
Extended totals	$335,991	$286,600	$212,400	$195,590	$187,392

Wallace Supplies Mfg. Co., with offices at 412 Orleans St., Chicago, Ill., and a branch at 233 Broadway, New York. N. Y., is the new name of the Wallace Supply Co. The reason for this change is to better acquaint customers of the firm with the fact that in addition to manufacturing a line of ring benders, bar benders, eye benders, pipe benders, etc., the company is in a position to manufacture specialties of all kinds.

The New England Foundation Co., Inc., has moved to 70 Kilby St., Boston.

The Koehring Machine Co., Columbus, Ohio, announces that a new office was opened early in January by W. W. Williams, in the Provident Bank Bldg., Cincinnati. C. O. Irwin will be in charge of this office.

House Numbers—The Baltimore Enamel & Novelty Co., Baltimore, Md., was low bidder at $509.75 for enameled house numbers. This called for 10,000 plates, size 3x2-in., and 139 gross of screws.

WATER TUNNEL, CHICAGO, ILL.

Section No. 1

✚Bids were received Dec. 2 by the city for constructing Section No. 1 of the Wilson Ave. water tunnel from (A) Great Lakes Dredge & Dock Co., (B) FITZSIMMONS & CONNELL DREDGE & DOCK CO. (awarded contract), (C) Nash Dowdle Co., (D) Byrnes Bros. Dredging & Engineering Co. The item bids were as follows:

	A	B	C	D
1,312,000 lb. steel	$0.07¾	$0.06	$0.12	$0.09
24 6-in. sea valves	50.00	25.00	45.00	25.00
8 12-in. sea valves	75.00	75.00	55.00	45.00
5500 cu.yd. concrete below top of shell	11.90	8.00	8.50	12.00
465 cu.yd. granite	60.00	60.00	71.50	67.00
450 cu.yd. concrete above top of shell	16.00	15.00	12.00	12.00
20,000 lb. reinforcing steel	0.05	0.02½	0.05	0.06
Superstructure complete (lump sum)	59,900.00	42,000.00	71,500.00	49,500.00
Landing structure, complete (lump sum)	20,000.00	17,818.00	35,000.00	24,360.00
40 cu.yd. concrete in floor of well	16.00	15.00	9.50	17.50
37.5 ft. earth excavation in shaft	190.00	78.00	149.00	325.00
62.2 ft. rock excavation in shaft	280.00	50.00	178.00	350.00
54 ft. c.-i. lining	295.00	210.00	260.00	250.00
205 cu.yd. concrete lining of shaft	20.00	12.00	15.00	15.00
2128 ft. 13-ft. tunnel complete	105.00	77.00	99.50	95.00
Extended totals	$553,581	$403,179	$597,710	$550,047

CATALOG NOTICES

Wallace Supplies Mfg. Co., 412-20 Orleans St., Chicago, Ill. Booklet. Hand bending tools. Illustrated, 3½x6 in.

Waterbury Co., 80 South St., New York. Catalog. Fibreclad wire rope. Illustrated, 24 pp., 3½x6 in.

De Laval Steam Turbine Co., Trenton, N. J. Catalog B. Centrifugal pumps. Illustrated, 298 pp., 6x9 in.

Minneapolis Steel & Machinery Co., Minneapolis, Minn. Catalog. Twin City tractors. Illustrated, 40 pp., 6x9 in.

Pelton Water Wheel Co., 90 West St., New York. Bulletin No. 8. Water wheels. Illustrated, 64 pp., 6x9 in.

Pacific Flush-Tank Co., The Temple, Chicago, Ill. Catalog No. 17. Automatic sewage ejectors. Illustrated, 32 pp., 6x9 in.

General Electric Co., Schenectady, N. Y. Bulletin No. 44004. Railway line material for direct suspension. Illustrated, 100 pp., 8x10½ in.

The Goulds Mfg. Co., Seneca Falls, N. Y. Bulletin No. 119. Centrifugal pumps. Illustrated, 12 pp., 7½x10 in.

Yorke Derrick Co., Washington, Penn. Catalog. Structural steel derricks, structural steel concreting towers, automatic dump buckets, oil and gas drilling rigs, etc. Illustrated, 32 pp., 5½x7½ in.

Northern Engineering Works, Detroit, Mich. Catalog No. 26. Cranes. Illustrated, 64 pp., 6x9 in.

The General Fireproofing Co., Youngstown, Ohio. The Waterproofing Handbook. Illustrated, 64 pp., 6x9 in.

Minneapolis Steel & Machinery Co., Minneapolis, Minn. Buldetin. Hoisting machinery, derricks. Illustrated.

American Mailing Device Corp., 103 Park Ave., New York. Catalog. Mail chutes. Illustrated, 20 pp., 4½x9½ in.

Charles McDermott Co. is the new title of the business heretofore carried on by Charles McDermott and later by the Estate of Charles McDermott. The address is 103 Pennsylvania Bldg., Philadelphia.

The Terry Steam Turbine Co., Hartford, Conn., announces that a new office has been opened at 702 Candler Bldg., Atlanta, with R. S. Scott in charge as representative of the State of Georgia. The Pittsburgh office is now in the Oliver Bldg., in charge of H. A. Rapelye.

The Chicago Bridge & Iron Works, Chicago, Ill., announces that E. G. Ladd, who has been in its Contracting Department for more than twenty years, is now in charge of a new office located at Monticello, Fla. This office will take care of business in the states of Georgia, Florida and Alabama.

The American Cast Iron Pipe Co., 716 Starrett Bldg., Kansas City, Mo., has arranged to carry a complete line of cast-iron pipe and specials in the following sizes, 4-, 6-, 8- and 10-in.

BARGE CANAL WORK, ALBANY, N. Y.

Contract No. 28

Bids were received Feb. 2 by Duncan W. Peck, State Supt. Pub. Wks., for Barge Canal Contract No. 28, constructing a harbor, dock wall and two breakwaters on Oneida Lake at Cleveland, N. Y., from (A) Henry P. Burgard, Fulton, N. Y.; (B) Barrally & Ingersoll, Rochester, N. Y.; (C) C. R. Simpson, 170 Broadway, New York, N. Y.; (D) John F. Dolan Contracting Co., 50 Church St., New York, N. Y.; (E) Clarence E. Gruner, Albany, N. Y.; (F) Eastover Construction Co., Inc., 122 North Genesee St., Utica, N. Y. The item bids were as follows:

	A	B	C	D	E	F
31,000 cu.yd. excavation	$0.39	$0.40	$0.55	$0.60	$0.45	$0.50
28 M. ft. b.m. sawed lumber	60.00	50.00	40.00	50.00	50.00	50.00
48,000 lin.ft. round timber	0.16	0.20	0.20	0.18	0.16	0.20
230 cu.yd. second-class concrete	9.00	8.50	8.00	8.00	11.00	8.00
1230 cu.yd. stone filling	1.80	1.75	1.50	1.50	1.00	1.80
1050 cu.yd. second-class riprap	4.50	4.00	4.50	4.50	3.50	4.50
1500 lb. iron casting, plain	0.05	0.05	0.05	0.05	0.06	0.05
550 cu.yd. gravel surfacing	1.00	1.00	1.00	1.00	0.80	1.00
Extended totals	$31,084	$32,332	$36,805	$37,675	$30,995	$35,904

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

Engineering Work on the Pacific Coast

Many engineers from the East and Central West contemplate visiting the Exposition on the Pacific Coast this year, and some of them have already formed a half-hearted idea to locate there permanently if conditions are propitious.

Knowing this, a series of letters has recently been sent out to well informed engineers in Washington, Oregon and California, in an endeavor to secure an idea of the contemplated municipal work for the year. The results, which are highly satisfactory, are given below in an abbreviated form. Regarding work on the Coast, especially work for engineers, the statement, by a prominent contracting firm, will bear repeating as follows:

"You will be doing a great favor, not only to engineers here but to all engineers in the East, by informing them that the engineering profession in this country is greatly overcrowded now, and that they should not come out here with the idea of staying and following their line of work. They are much better off in the East, where conditions are more stable the year round."

There is a great deal of work outside of the strictly municipal projects, such as hydro-electric plants, bridges, Columbia Highway, and other roads of like importance. Many of these will not be completed for several years, but the preliminary plans are now being prepared.

Aberdeen, Wash.—The improvement most needed is a permanent water supply, but there is little likelihood of the work being done this year.

Albany, Ore.—The public improvements most needed are a city hall, and a municipal gas plant. Little prospect of their construction this year.

Anaheim, Calif.—Improvement most needed is a new city hall. There is a prospect that a block of ground will be purchased, and a $40,000 city hall built, as the nucleus of a Civic Center.

Ashland, Ore.—The greatest need is for the extension of the municipal water and lighting systems. Improbable that any work will be done this year.

Astoria, Ore.—No special need, except for work now under way. Private improvements and industries are most wanted. Small amount of street improvement and sewer construction planned for this year, but most of the contracts for city improvement work have been awarded.

Bakersfield, Calif.—Ornamental street lights, storm sewers, and a garbage disposal plant are badly needed. Will probably not be done this year, but it is possible, as a new city charter is now before the Legislature.

Berkeley, Calif.—The city needs an improved water supply. Little prospect of any work this year.

Bremerton, Wash.—The city is most in need of grading and sidewalk improvements. About one mile of paving is contemplated during the year. The city also contemplates the purchase of the water and light plants.

Burns, Ore.—The city needs a new water supply and sewer construction. Little likelihood of their construction this year.

Coalinga, Calif.—Good roads and water supply are most needed. No improvements contemplated for this year.

Colfax, Wash.—A municipal park and playgrounds, and surfacing of country roads in the vicinity are needed. The work will probably be done this year.

Centralia, Wash.—There is need of pavements, sewers, city hall and other improvements. No funds to do the work at present.

Corona, Calif.—Street paving, sewage disposal plant and ornamental street lights are needed. About four miles of street paving will probably be done this year.

Emeryville, Calif.—The city's greatest need is for additional asphalt paving. Some of the work will probably be done this year.

Eugene, Ore.—The city needs more paved streets. About a mile of pavement will probably be laid this year. The Water Board also contemplates building several auxiliary reservoirs.

Glendale, Calif.—The city has no sewer system as yet. Preliminary investigations to this end are now beginning.

Hoquiam, Wash.—No special need of any improvements at present. Small amount of street work will probably be done this year.

Los Angeles, Calif.—Street tunnels and subways are much needed in Los Angeles. The work will probably not be done this year.

Marshfield, Ore.—Street paving is needed, of which a small amount may possibly be done this year.

Marysville, Calif.—The city needs improved streets, and a system of storm sewers. It is probable that the work may be begun this year.

Medford, Ore.—The county needs good roads and irrigation districts more than anything else. That portion of the Pacific Highway through Jackson County (50 miles) will be completed this year. It is also proposed to form an irrigation district covering about 5500 acres of the Rogue River Valley.

Mill Valley, Calif.—This city needs improved streets, but there is little likelihood that the work will be done this year.

Modesto, Calif.—Good roads throughout the county are greatly needed. Some street work is now being done, and more may follow.

Monrovia, Calif.—Macadam or concrete roads are needed, but the work will not be done this year.

Nevada City, Calif.—Better residence streets are needed by this city. A considerable amount of work will be done this year.

North Bend, Ore.—New city, so the great need is for improved streets. About $100,000 worth of grading done last summer, and the main business street will be hard surfaced for a distance of one-half mile this year.

Oakland, Calif. — A new district, recently annexed, needs improved streets and sewers. A part of the work will be done this year.

Olympia, Wash.—The city needs a new source of water supply. The city authorities contemplate the construction of a municipal water system, but the plan is opposed by the taxpayers, so no bonds can be sold for the purpose.

Ontario, Calif.—Better streets and a public park are most needed in this city. A site of 40 acres belonging to the city will be eventually laid out as a park. Some trees will probably be planted this year as a beginning. Plans are being prepared for the improvement of eight miles of streets, mostly concrete base, with asphaltic oil wearing surface, and some of macadam, concrete gutters and culverts.

Oregon City, Ore.—Main St. in need of repaving. The work will be done this year. A pipe line, 25 miles long, will be constructed from the head waters of the Clackamas.

Oroville, Calif.—Street pavements and good roads are most needed in the vicinity. Contracts will be let during the year for two miles of pavement on asphaltic concrete base.

Oxnard, Calif.—Additional paved streets are much needed. Ten blocks of waterbound macadam at present under construction.

Pasadena, Calif.—Better transportation facilities are greatly needed in Pasadena. Nothing will be done this year, unless financial conditions improve.

Pendleton, Ore.—Septic tanks are needed. It is expected that the work will be done this year.

Pomona, Calif.—The public improvements needed include roads, street lights, outfall sewer, etc. Contracts have been let for nine miles of concrete roads, to cost about $150,000. Plans have been prepared for an ornamental street-lighting system. Pomona is also in need of a first class hotel.

Porterville, Calif.—Street paving is needed. Contracts for 475,000 sq.ft. of pavement will be awarded in February, and completed as soon as possible.

Portland, Ore.—Water front improvements are needed. It is quite unlikely that the work will be done this year. Some street and sewer improvements will be made this year. It is also planned to build a new diversion dam at the intake of the water supply.

Pullman, Wash.—Street paving is much needed. Contracts have been awarded for some bitulithic and bituminous macadam paving.

Redondo Beach, Calif.—Street improvement is the principal need of the city. Probably no work will be done this year.

Roseburg, Ore.—The city is much in need of a trunk line intercepting sewer. Little probability of its being built this year.

Salem, Ore.—Only minor improvements are needed by this city. They will probably be made this year.

San Francisco, Calif.—Among the municipal improvements planned for the year are: Extensions of railways, perfecting the garbage incinerating system, extension of sewers and water supply.

San Rafael, Calif.—Bridges are needed, also storm sewers and additional street paving. Some of the work will be done this year. The city spent over $200,000 during 1914 for municipal improvements.

Santa Clara, Calif.—Street improvements are most needed by this city. About five miles of street pavement, sidewalks, curbs and gutters will be constructed this year.

Santa Monica, Calif.—This city needs a system of storm sewers, and the street paving consistent with the improvement of property. The storm sewers will be constructed this year, providing the election for the issue of the necessary bonds carries.

Seattle, Wash.—Bridges are most needed in Seattle. An election will be held in March for the purpose of voting a bond issue for the construction of bridges over Lake Washington Canal. Some general improvements are also needed.

Snohomish, Wash.—No special improvements are needed in Snohomish and vicinity.

South Bend, Wash.—Reclamation of the tide lands is needed. One concrete dike will be constructed this summer. The estimated cost is $60,000.

Spokane, Wash.—No public improvements needed at this time. Grade separation work by various railways has either been recently completed, or is now under way.

Stockton, Calif.—Sewer extensions are needed in the city, but it has not yet been decided whether the work will be undertaken this year or not. An irrigation system is being planned to develop about 40,000 acres of land in Shasta County. The main canal will be 40 miles long, with about 55 miles of laterals.

Tacoma, Wash.—Hard surfaced trunk highways are needed in the vicinity. The city needs a trunk sanitary sewer, and intercepting storm and sanitary sewers. The work will not be done this year.

Tulare, Calif.—Street paving, an additional school building and a new city hall are the principal needs of this city. Some paving of the city streets, and of the State Highway through Tulare County will probably be done this year.

Vallejo, Calif.—An improved system of garbage disposal, and filling of the water front are needed in Vallejo. It is improbable that the improvements can be made this year.

Ventura, Calif.—Storm sewers, costing from $20,000 to $24,000, are much needed. On account of the already heavy indebtedness of the city, the work will probably not be undertaken this year.

Visalia, Calif.—Street improvements and sewer extensions are needed. No work contemplated in the near future. An election will be held shortly to vote on the question of a new city charter, including a City Manager plan.

Watsonville, Calif.—No improvements contemplated. This city is the center of a fruit raising country, so there is little engineering work of importance.

Whittier, Calif.—Street paving and improvement of the water supply are most needed in this city. Proceedings are under way for laying about 300,000 sq.ft. of asphalt pavement, and more work of the same class is contemplated. Improvements and extensions to the water system, to cost about $10,000 are also under consideration. A new grammar school, to cost $30,000 will soon be built.

RAILWAYS

Virginia—Norfolk & Western Ry.—Surveys are being made by this company for the construction of a railway from Pamplin to Burkeville, Va. J. E. Crawford, Roanoke, Va., is Ch. Engr.

West Virginia—Buckhannon & Northern R. R.—This company has completed surveys and is arranging to start work about Apr. 1 on the extension of its line from Fairmont to Clarksburg, W. Va., about 17 miles. S. D. Brady, Fairmont, W. Va., is Ch. Engr. Noted Feb. 11.

Kentucky—The Continental Coal Co. contemplates an expenditure of $12,000 for the construction of a spur to its mine at Straight Creek, Ky. L. E. Yoder is Ch. Engr.

Kentucky—Illinois Central R.R.—Surveys are being made by this company for double-tracking its line from Central City to Paducah, Ky. A. S. Baldwin, Chicago, Ill., is Ch. Engr.

Indiana—Vandalia R.R.—This company has completed surveys for the construction of a four-mile spur from the White Rose mine in Linton, Ind., to the Southwest mine. F. T. Hatch, St. Louis, Mo., is Ch. Engr.

Kansas—Union Pacific R.R.—This company contemplates ballasting its line from Ellis to Oakley, Kan., about 71 miles. R. L. Huntley, Omaha, Neb., is Ch. Engr.

South Dakota—Chicago, Milwaukee & St. Paul Ry.—According to press reports this company contemplates taking over the Crouch line, from Rapid City to Mystic, S. D. It is reported also that the company has made surveys for an extension from Silver City to Nahant, S. D. C. F. Loweth, Chicago, Ill., is Ch. Engr.

Texas—Chicago, Rock Island & Gulf Ry.—This company contemplates the construction of an extension from Graham to Albany, Tex., about 50 miles. A. B. Warner, Fort Worth, Tex., is Gen. Supt. and Ch. Engr.

Texas—Missouri, Kansas & Texas Ry.—Plans are being considered by this company for the extension of its line from Newcastle to Cisco, Tex., about 50 miles. F. Ringer, Parsons, Kan., is Engr. Maintenance of Way.

Oklahoma—Atchison, Topeka & Santa Fe Ry.—According to press reports this company is making surveys for the construction of a railway from Maramec to Jennings, Okla., about 10 miles. F. M. Bisbee, Amarillo, Tex., is Ch. Engr. Western Lines.

Oregon—It is reported that Porter Bros., Portland, Ore., will construct a railway up South Santiam Valley, from Albany to Lebanoux.

Ontario—Canadian Northern Ontario Ry.—Surveys have been completed by this company for the construction of a railway from Toronto to Niagara Falls, about 79 miles. R. A. Baldwin, Toronto, Ont., is Engr.

ELECTRIC RAILWAYS

New Britain, Conn.—The New Britain St. Ry. Co. has applied for a charter to build an electric railway in New Britain. At present the capital stock is $50,000 but is to be increased to $500,000. Among the incorporators are Mayor George A. Quigley and George M. Landers.

Thompsonville, Conn.—The Hartford & Springfield St. Ry. Co., Warehouse Point, Conn., is having plans prepared for extending its line from the waiting station at Thompsonville through Main St., across the Connecticut River, and connecting on Mapleton Ave., in Suffield, with the present Suffield St. Ry. Joseph S. Goodwin is Supt. and Pur. Agt.

Watertown, N. Y.—The Black River Traction Co. contemplates re-tracking its line on the Public Square. Work will start sometime during the summer. L. Schwerzmann is Gen. Mgr. and Supt.

Chambersburg, Penn.—An application for a charter will soon be made for the purpose of building a railway to connect McConnellsburg and Fort Loudon. Edward J. Post and D. H. Patterson are interested.

Monaca, Penn.—Press reports state that a company will be organized in Monaca to build a line from Monaca, south to Coraopolis, about 20 miles. J. W. Reid and J. J. Allen are interested.

South Bethlehem, Penn.—The Lehigh Valley Transit Co. is considering plans for double-tracking its line from South Bethlehem to Hellertown, and for the construction of a new line from Hellertown to Richlandtown. W. W. Wysor, Allentown, is Ch. Engr.

Atlanta, Ga.—The Georgia Ry. & Power Co., having made preliminary surveys, is considering extending its line to Oglethorpe University, about 1½ miles north of the terminus at the DeKalb County Line. W. H. Glenn is Mgr.

Augusta, Ga.—The Augusta-Aiken Ry. & Electric Corporation plans to improve its lines. John H. Adams is Ch. Engr. and Master Mechanic.

Waycross, Ga.—The Waycross St. & Suburban Ry. Co. is having plans prepared for extending its line through the southern section of Waycross. N. B. Rhoads is Gen. Mgr. and Pur. Agt.

Cleveland, Ohio—The Cleveland Ry. Co. has been requested to consider plans for an extension of the West Madison Ave. line from West 117th St. to Riverside Ave., Lakewood. Other improvements and extensions in Cleveland are also contemplated. George L. Radcliffe is Gen. Mgr.

Conneaut, Ohio—The Conneaut, Kingsville & Ashtabula Ry. Co. has completed surveys on its 14-mile line between Conneaut and Ashtabula. No definite time for starting construction has yet been fixed. W. E. Hawley, Kingsville, Ohio, is Pres.

Portsmouth, Ohio—Plans are being prepared by the Portsmouth St. Ry. & Light Co. to build an extension in Portsmouth. W. A. Martin is Ch. Engr.

Evansville, Ind.—The Board of Public Works has granted a franchise to the Evansville Ry. Co. to extend its Bell St. line from Kentucky Ave. to the city limits. William A. Carson is Gen. Mgr. and Pur. Agt.

East St. Louis, Ill.—The East St. Louis & Suburban Ry. has been requested to consider plans for building its tracks along Main St. from Broadway to Missouri Ave. C. A. Pearson, Jr., is Secy.

Lincoln, Ill.—The Lincoln Ry. & Heating Co. has been recently incorporated with a capital of $15,000. This company is believed to have been organized as a successor to the Lincoln Ry. & Light Co. for the purpose of building electric railways in Lincoln. Among the incorporators are J. R. Patton and John A. Hoblit.

Coffeyville, Kan.—Press reports state that plans are being considered by the Union Traction Co. to extend the line from Coffeyville to Collinsville, Okla. This line will finally run to Tulsa via Collinsville. Roy Kennedy is Supt.

Dunkirk, Kan.—The Joplin & Pittsburg Ry. Co., Pittsburg, Kan., is considering plans for extending its line from Dunkirk to Arcadia, via Hazen and other coal camps. William A. Satterlee is Gen. Mgr. and Pur. Agt.

St. Louis, Mo.—The United Rys. Co. of St. Louis has been requested to consider plans for extending its lines along Tamm Ave. to Art Hill in Forest Park. Robert McCulloch is Supt.

Phoenix, Ariz.—The City Council has granted a franchise to the Phoenix Ry. Co. to build an extension along Monroe St. between First St. and Second Ave. J. P. Gould is Ch. Engr.

Klamath Falls, Ore.—Press reports state that a line is being planned from Eureka, Calif., north to Requa and from there along the Klamath River to Klamath Falls. D. W. Hanson, Pres., Eureka Development Association, is interested.

Hamilton, Ont.—The City Council has selected a committee to request the Hamilton St. Ry. Co. to build two cross-town lines and also relay new tracks on several streets in Hamilton. C. K. Green is Supt. of Construction.

Ottawa, Ont.—The Ottawa & St. Lawrence Electric Ry. Co. will start work during the spring on the section from Perth to Smith Falls, which will make a belt line of 300 miles. E. Malone is Ch. Engr.

Toronto, Ont.—At the next session of the Legislature, the Toronto & York Radial Ry. Co. will make an application to construct a double track line on Yonge St., from the Canadian Pacific R.R. tracks to the north city limits of Toronto. E. W. Oliver is Ch. Engr.

LIGHT, HEAT AND POWER

Bar Harbor, Maine—It is reported that the town is considering the installation of a municipal electric-light plant.

+Bridgeport, Conn.—The American Graphophone Co. has awarded a contract to J. W. DAVIS, 510 Security Bldg., Bridgeport, for the construction of a brick and steel transformer house at its plant on Railroad Ave.

Bridgeport, Conn.—Press reports state that the United Illuminating Co. will shortly begin the construction of an addition to its plant on Congress St. The building will be 50x150 ft., and 35 ft. high. Charles A. Paul is Mgr.

+Bridgeport, Conn.—The contract for the heating and mechanical equipment for the group of almshouse buildings has been awarded to the W. P. KIRK CO., 360 Fairfield Ave., Bridgeport, at $49,980. The work includes heating and ventilating, hospital equipment, vacuum cleaning system, laundry machinery and plumbing. Other bidders were: C. H. Darnstade, New York, $67,400; W. G. Cornell, New York, $65,196; Files Engineering Co., Providence, $62,727; Merrill Co., Boston, $58,439; G. E. Gibson Co., New York, $56,960; E. G. Woolfolk & Co., New York, $56,863; E. S. Eames & Co., $54,480; Walker & Chambers, New York, $53,215; Fentzlaff Heating & Plumbing Co., New York, $51,500. Skinner & Walker, 1188 Main St., Bridgeport, is Arch.

+Quinebaug, Conn.—The Fabyan Woolen Co., Quinebaug, has awarded the contract for the construction of a 50x80-ft. power house with a 125-ft. chimney to the EASTERN CONSTRUCTION CO., Woonsocket, R. I.

Elba, N. Y.—The Elba Food Products Co. will build a one-story, 52x75-ft. power house in connection with its new canning and preserving plant. Raymond M. Decker, Batavia, N. Y,. is Pres.

New York, N. Y.—(Borough of Manhattan)—(Official)—All bids received Jan. 29 by the Board of Trustees, Bellevue and Allied Hospitals, for reconstructing the existing branch circuits of the electric lighting system, additional gas piping and gas and electric fixtures for the main building of the Harlem Hospital, were rejected. New bids for the work will be received until noon, Feb. 24. John W. Brannan, M. D., is Pres. Bd. of Trustees. Noted Jan. 21 and Feb. 4.

✚**New York, N. Y.**—(Borough of Brooklyn)—(Official)—The contract for installing heating and ventilating apparatus in Public School 36, Stagg and Ten Eyck St., Borough of Brooklyn, has been awarded to WILLIAM J. OLVANY, 177 Christopher St., New York, at $17,535. Noted Jan. 21 and Feb. 4.

✚**New York, N. Y.**—(Borough of Brooklyn)—(Official)—The contract for installing electrical equipment in new Public School 95, Van Sicklen St. and Neck Rd., Borough of Brooklyn, has been awarded to PEET & POWERS, 45 West 34th St., New York, at about $7570. Noted Jan. 21 and Feb. 4.

Utica, N. Y.—James F. Leahy, 411 John St., will equip a power house in connection with a new laundry plant. The total cost will be $50,000. The power building will be one story, 50x70 ft.

Fairmont, W. Va.—(Official)—Bids will be received until noon, Mar. 15, by the State Board of Control, Charleston, for heating, plumbing and electrical work for the main building of the Fairmont State Normal School. Paul A. Davis, 3d, Presser Bldg., Philadelphia, Penn., is Arch. J. S. Lakin, Charleston, is Pres. State. Bd. of Control.

Lakeland, Fla.—See item under "Water Supply-Irrigation."

New Orleans, La.—It is reported that an offer has been made to the Commission Council by George T. Bishop, Baltimore, Md., Pres. of the Washington, Baltimore & Annapolis Electric R.R. Co., to construct an electric-light plant, to be eventually taken over by the city. Mr. Bishop represents a syndicate having about $40,000,000 to invest in civic development ventures. E. E. Lafaye, Comr. of Pub. Property, is considering the proposal.

Chattanooga, Tenn.—It is reported that the Duck River Power Co., Shelbyville, has sold its electric-light plants at Shelbyville, Manchester and Wartrace, Tenn., to the Tennessee Ry., Light & Power Co., Chattanooga. The new owners will improve these plants.

Irvine, Ky.—It is reported that H. E. Hay, Corbin, Ky., has secured a franchise, and will establish an electric-light plant, to cost about $5000, in Irvine. Noted Dec. 25, 1913, Jan. 22 and Sept. 3, 1914.

Bucyrus, Ohio—The Bucyrus Light & Power Co., a subsidiary of the National Gas, Electric Light & Power Co., Detroit, Mich., is having plans prepared for the construction of a new power plant. It will be operated by steam instead of gas, now used, and the present plant will be dismantled. The estimated cost of the new plant is $40,000. D. F. Burritt, Detroit, Gen. Supt. of the National Gas, Electric Light & Power Co., will supervise the work.

Butler, Ohio—Bonds to the amount of $4000 have been issued, the proceeds of which will be used for improving the municipal electric-light plant. The purchase of a gas engine is also under consideration.

Chillicothe, Ohio—It is reported that the Mead Pulp & Paper Co., Dayton, contemplates enlarging its local pulp mill and power plant at a cost of about $100,000.

Cleveland, Ohio—The River Furnace Co., West Third St., has taken out a permit for the construction of a two-story, 122x400-ft. power house. It will contain 16 boilers and 16 generators and blowing engines. The estimated cost is $125,000.

Franklin, Ohio—Press reports state that the village is considering the installation of a municipal electric-light plant. The present contract with the Franklin Electric Light Co. for street lighting expires next August.

✚**Youngstown, Ohio**—The City Council has authorized the Director of Public Service to enter into a contract with the YOUNGSTOWN & SHARON ST. RY. CO. to light the streets of the city for a period of ten years, beginning Apr. 1, 1915. Noted Jan. 28.

Marquette, Mich.—It is reported that Charles Retallic, Supt. and Mgr. of the municipal light and power plant, has recommended the construction of a new power house and penstock.

Muskegon, Mich.—According to press reports, the Muskegon Lighting Co. has decided to construct a new gas tank in Muskegon, with a capacity of 500,000 cu.ft. The estimated cost is $50,000.

Milwaukee, Wis.—The Board of School Directors has retained Van Ryn & De Gelleke, Arch., Caswell Block, to prepare plans for a one-story 28x56-ft. boiler house for the 16th Ave. School. It will cost about $15,000, to be of brick and concrete, fireproof. Frank M. Harbach is Secy. of the Bd.

Buffalo Center, Iowa—The City Council is reported to be considering the installation of a municipal electric-light plant. The estimated cost is $10,000.

Sloan, Iowa—Over $11,000 has been subscribed in Sloan for the purpose of installing an electric-lighting system. The money has been raised by selling stock at $100 per share.

Powhattan, Kan.—Press reports state that an election will soon be held to vote on the question of issuing $10,000 in bonds to be used for the installation of a municipal electric-light plant.

Mexia, Tex.—The City Council has granted a franchise to the Co-operative Gas Co. to lay a system of natural gas distributing mains in various streets of Mexia.

Yorktown, Tex.—It is reported that the Texas Southern Electric Co., Victoria, is negotiating for the purchase of the plant of the Yorktown Light & Ice Co. If the transaction is completed, the plant will be improved. W. A. Leland, Victoria, is Pres. of the Texas Southern Co.

Boise, Idaho—The City Council is considering the installation of a lighting system on the South Side. The estimated cost is $5000. C. C. Stevenson is City Engr.

Elberton, Wash.—The Elberton Building & Power Co., Elberton, contemplates the construction of a 1500-hp. power plant on a site near the city. The company has petitioned the City Council of Colfax, Wash., to grant a 50-year franchise to furnish energy to that city also. Charles N. Hinchcliff, owner of a flouring mill near Elberton, is interested.

Baker, Ore.—It is reported that the Oregon Lumber Co. will install an electric-light plant to serve its own mills, the Sumpter Valley Ry. and the Sumpter Valley machine shops.

Fresno, Calif.—(Official)—Bids were opened Feb. 1 by the State Engineer for the boiler plant equipment, gymnasium and boiler house at the Fresno State Normal School as follows: Thomas Haverty Co., $10,750; F. P. Walsh, $10,787; Scott Co., $11,080; Robert Dalziel, Jr., $11,217; Pacific Fire Extinguisher Co., $11,300; Seibert Co., $11,931; Frederick W. Snook Co., $12,200; Latourrette-Fical Co., $12,400; Grant Fee, $13,000; Arthur Hess, $15,340.

Parlier, Calif.—The Parlier Winery will install a gas plant to serve Parlier, Reedley, Sanger and Kingsburg. P. N. Madsen and W. Parlier, Parlier, are interested.

Cordova, Alaska—Harry H. Knox, Pres. and Mgr. of the Alaska Electric Consolidated Co., Cordova, announces that financial arrangements for the construction of its proposed power plant have been completed, and that construction work will probably begin in the spring. Noted Mar. 19, 1914.

Dutton, Ont.—It is reported that bids will be asked in the spring by the Town Council for electrical equipment to cost about $15,000. It will include transformers, switches, wire, etc.

Thamesville, Ont.—The Town Council has ordered estimates to be prepared for the construction of a new hydroelectric system to furnish light and power for the town.

BRIDGES

Northampton, Mass.—The Board of Commissioners of Hampshire County has petitioned the State Legislature to confirm its acts relative to the proposed bridge over the Connecticut River between Northampton and Hadley. Noted Dec. 18, 1913, and Jan. 7, 1915.

★**Central Falls, R. I.**—(Official)—Bids will be received until noon, Mar. 15, by Esten & Black, Engr., 18 East Ave., Pawtucket, for the construction of a three-span reinforced-concrete bridge across the Blackstone River between the City of Central Falls and the Town of Cumberland. The estimated cost is $65,000. Noted June 18 and 25, Oct. 1, 1914 and Jan. 21, 1915.

Ansonia, Conn.—The Board of Public Works has instructed V. B. Clarke, City Engr., to prepare plans for the construction of a concrete bridge at Beaver Brook in connection with the extension of Central St. Bids will be asked early in the spring.

Canton, N. Y.—Plans have been prepared by the Concrete-Steel Engineering Co., Park Row Bldg., New York, for a reinforced-concrete bridge over De Grasse River in Canton. The estimated cost of the structure is $30,000. The voters will be asked to authorize, at the next town meeting, the construction of this and two smaller bridges.

Greenwich, N. Y.—A special town meeting will be held Feb. 23 to vote on the question of building four new bridges over Battenkill as follows: A concrete bridge at Bridge St. in the village of Greenwich, to cost not over $15,000; a concrete bridge at Clark's Mills, cost not to exceed $24,000, a concrete bridge at Middle Falls, cost not to exceed $18,000, and a bridge at Battenville, cost not to exceed $16,000, of which the village of Greenwich is asked to pay one-half.

Camden, N. J.—The Philadelphia & Camden Bridge & Terminal Co. has been incorporated by J. Disbrow Baker and Joseph P. Murray, with a capital stock of $125,000. The purpose of the company is to build a bridge over the Delaware River between Camden and Philadelphia.

Elizabeth, N. J.—The Boards of Chosen Freeholders of Union and Somerset Counties have approved plans for a county line bridge over the Green River at Plainfield. The estimated cost is $10,000. It is reported that Union County will also build a new bridge across the Rahway River at Cranford, to cost about $13,000. Jacob L. Bauer, Elizabeth, is Engr. of Union County.

★**Mount Holly, N. J.**—Bids will be received util noon, Mar. 3, by the Boards of Chosen Freeholders of Atlantic and Burlington Counties, Burlington County Court House, Mount Holly, for repairs to the Chestnut Neck Bridge. A. H. Nelson, Atlantic City, is Engr. of Atlantic County. James Logan is Engr. of Burlington County. For further information, see advertisement under "Contracts to Be Let."

✚**New Brunswick, N. J.**—The Board of Freeholders has awarded a contract for the construction of a wooden bridge over Manalapan Creek, Madison Township, to A. H. SCOTT & SON.

Chalfont, Penn.—The Commissioners of Bucks County, Doylestown, have decided to build a new concrete bridge over North Branch Creek at Chalfont, to replace the present wooden structure inadequate for the increased traffic. A walk will be built along the outside of the covered bridge over Neshaminy Creek at Chalfont. A. Oscar Martin, County Engr., has been directed to prepare plans for these improvements.

Huntington, W. Va.—A. B. Maupin, City Engr., has submitted to the City Commissioners plans for the Fifth Ave. and 29th St. overhead railway crossings. The estimated cost is $43,562 and $30,325 respectively.

Palatka, Fla.—The Commissioners of Putnam County are asking for estimates of the cost of rebuilding a 4000-ft. concrete bridge over the St. Johns River. J. H. Millican is Chn. Bd. of Comrs.

Mobile, Ala.—The County Board of Revenue and the Road Commissioners of Mobile County have ordered plans prepared for repairing the Dog River Bridge, or placing a new concrete foundation. The estimated cost of the new foundation is $8640.

✚Laurel, Miss.—The Highway Commissioners of the Second District, Jones County, have awarded the contract for the construction of a steel bridge over Horse Creek to the VINCENNES BRIDGE CO., Vincennes, Ind. Noted Nov. 26, 1914.

Natchez, Miss.—The Board of Supervisors of Adams County has ordered that bids be advertised for the construction of an inter-county bridge to be built between Adams and Jefferson County over Fairchild's Creek at Hermitage Ford.

✚Shreveport, La.—The Vicksburg, Shreveport & Pacific Ry. has awarded a contract for rebuilding its bridge over the Red River to the BLODGETT CONSTRUCTION CO., Kansas City, Mo. The work includes the removal of the present structure, and replacing with three 242-ft. truss spans, one 295-ft. draw span, and one 60-ft. deck girder span. H. B. Hearn, Shreveport, is Supt.

Clinton, Tenn.—It is reported that the three bridges to be built over the Clinch River by Anderson County will be of steel or reinforced concrete, each 300 ft. long and 18 ft. wide. The estimated cost is $20,000 each. C. J. Sawyer is Chn. of the Bridge Com. Noted Jan. 21.

Louisville, Ky.—Bids will be received until Feb. 19 by the Board of Public Works for the construction of a concrete culvert over Drescher St. between Letterle Ave. and Deemont St. The estimated cost is $6500. D. R. Lyman is City Engr.

✚Laporte, Ind.—The Board of Commissioners of LaPorte County has awarded bridge contracts as follows: Ham Hofer Bridge, Kankakee Township, to WILLIAM B. HUTCHINSON at $12,450; A. C. Johnson Bridge, New Durham Township, to LOUIS MARTINE at $23,000; repairing two bridges to C. D. ANDREAS at $1770.

Stinesville, Ind.—Bids will be received until Mar. 2 by the Board of Commissioners of Monroe County, Bloomington, for the construction of a bridge over Bean Blossom Creek near Stinesville. W. F. Kinser, Bloomington, is Audr.

✚Princeton, Ill.—(Official)—The County Superintendent of Highways of Bureau County has awarded the contract for the construction of the Captain Swift Bridge, Princeton Township, to the VINCENNES BRIDGE CO.; Vincennes, Ind., at $6095 for the superstructure, substructure and retaining wall, and 35c. per cu.yd. for earth fill and grade construction. The contract for two small bridges in Gold and Manlius Townships was awarded to the WHITEWATER BRIDGE CO., Whitewater, Wis., at $785 and $1095 respectively. Noted Jan. 28.

La Crosse, Wis.—The County Highway Commissioner of La Crosse County is making surveys for the location of a new reinforced-concrete bridge over the Black River near Campbell, La Crosse County. It will be about 5400 ft. long. Plans will be prepared by M. W. Torkelson, State Highway Engr., Madison.

Winona, Minn.—Bids will be received until Mar. 1 by the City Council for the construction of a new approach to the High Wagon Bridge over the Mississippi River. It will cost approximately $100,000. H. B. Walling is City Engr. Noted Dec. 17.

Mason City, Iowa—(Official)—Bids will be received until Mar. 2 by the Auditor of Cerro Gordo County for the construction of 20 bridges in the county, two to be of steel, the remainder of concrete. The estimated total cost is $25,000. R. E. Robertson is County Engr. Noted Jan. 21.

Salina, Kan.—The Commissioners of Saline County opened bids Feb. 2 for the construction of a concrete bridge over the Smoky Hill River at Iron Ave. from the following: Leavenworth Bridge Co., Leavenworth, Kan., $28,990; Concrete Construction Co., Kansas City, Mo., $26,200; Missouri Valley Bridge Co., Leavenworth, $27,423; March Construction Co., Des Moines, Iowa, $28,346; Haeney Construction Co., Enid, Okla., $27,000; Staley & Mackey, Hutchinson, Kan., $26,772; Buchanan & Stack, Salina, $32,000. Noted Aug. 27, Nov. 12 and 26, Dec. 31, 1914 and Jan. 21, 1915.

North Platte, Neb.—(Official)—Bids will be received until noon, Mar. 17, by C. W. Yost, Clk. of Lincoln County, for the construction of a bridge over the North Platte River, about two miles east of the town of North Platte. Alternate bids will be accepted for a reinforced-concrete bridge, balanced arch type, or for a high truss steel bridge. Noted July 23 and Sept. 24, 1914.

Seward, Neb. — (Official) — All bids received Feb. 3 for county bridge work during 1915 were rejected by the Board of Commissioners of Seward County. J. R. Roberts is County Clk. Noted Jan. 28.

Kansas City, Mo.—The Park Board has approved plans for a bridge to be built over Brush Creek to connect with the extension of Benton Blvd. into Swope Parkway. The estimated cost including the approaches, is $40,000. The expense will be borne by a benefit district bounded by Linwood Blvd., Brush Creek, Prospect Ave. and Cleveland Ave.

✚Little Rock, Ark.—(Official)—The City Council has awarded the contract for the completion of the Third St. Viaduct to the N. PEAY CONSTRUCTION CO., Little Rock, at $8054. Other bidders were: McEicher & McEicher, $9250; Joseph McCoppin, $8076; J. B. Bateman, $8383, and M. J. Cole & Co., $8560. Noted Feb. 11.

✚Orange, Tex.—The contract for the construction of a bridge over the intercoastal canal, nine miles east of Orange, has been awarded to PERRY & BONNER, Lake Charles, La.

Uvalde, Tex.—It is reported that the Commissioners Court of Uvalde County will shortly ask bids for the construction of a concrete bridge on the San Antonio-El Paso Rd.

Rockport, Tex.—Press reports state that the Commissioners Court of Aransas County will soon advertise for bids for the construction of a bridge across Puerto Bay to Refugio County. The town of Bayside and Refugio County will each pay a part of the cost, which is estimated at $25,000.

✚Chehalis, Wash.—The Commissioners of Lewis County opened bids Feb. 3 for the construction of two steel bridges as follows, (A) No. 79, (B) No. 78-B: COAST BRIDGE CO., Portland, Ore., (A) $10,907, (B) $9427 (awarded contract); William Monson, Portland, (A) $11,778, (B) $10,132; Charles G. Huber, Seattle, (A) $11,559, (B) $10,417; Ambrose-Burdsal Co., Portland, (A) $11,850. (B) $10,400; Illinois Steel & Bridge Co., Spokane, (A) $13,500, (B) $11,500. Noted Jan. 14.

Mount Vernon, Wash.—Bids will be received until 2 p.m., Mar. 2, by the Board of Commissioners of Skagit County for the construction of a bridge across the Swinomish Slough, connecting the town of LaConner with the Swinomish Indian reservation and Fidalgo Island. A. L. Strong, Mount Vernon, is County Engr.

Renton, Wash.—Bids will be received until Feb. 25 by the Board of Commissioners of King County, Seattle, for the construction of a 120-ft. steel bridge over the Duwamish River near Renton. The estimated cost is from $15,000 to $25,000. M. J. Carrigan is Chn. Bd. of Comrs.

✚Seattle, Wash.—The Board of Commissioners of King County has awarded the contract for the construction of a timber bridge at 14th Ave. S., to the MANHATTAN CONTRACTING CO., Central Bldg., Seattle, at approximately $19,000. Fifteen bids were submitted. Noted Jan. 21.

Dallas, Ore.—(Official)—We are advised by Henry L. Bowlby, State Highway Engr., that the matter of constructing a bridge across the Willamette River, between Marion and Polk Counties, has been postponed for a year. Noted Jan. 14.

✚Toronto, Ont.—The Board of Control, H. C. Hocken, Chn., has awarded the contract for the construction of the Rosedale section of the Bloor St. Viaduct to the DOMINION BRIDGE CO., Montreal, Que., at $298,555. Noted Nov. 19 and 26, 1914.

WATER SUPPLY—IRRIGATION

Blackstone, Mass.—(Official)—The town has petitioned the legislature for permission to acquire land for a water-supply.

Greenfield, Mass.—On Feb. 2 an appropriation of $5000 was made for the construction of water mains.

Middleboro, Mass.—On Feb. 2 the Fire District voted in favor of constructing a concrete stand pipe for the Water Department on Barden Hill. The estimated cost is $30,000. A. C. Howes is Supt. of Water Dept.

★Salem, Mass.—(Official)—Bids will be received until 10 a.m., Mar. 10, by the Salem and Beverly Water-Supply Board for the construction of an additional water-supply from the Ipswich River. For details see advertisement under "Contracts to Be Let." Noted Aug. 20 and Jan. 21.

Gloucester, N. J.—The Council contemplates issuing bonds for $10,000, the proceeds of which will be used for the improvement of the water system. Noted Jan. 21.

Newark, N. J.—Bids will be received until Feb. 24 by the Board of Freeholders for the installation of an additional water-supply for the Overbrook Hospital. Runyon & Carey, 845 Broad St., Newark, is Consult. Engr. Noted Dec. 3.

★Perth Amboy, N. J.—(Official)—Bids will be received until 8 p.m., Mar. 24, by the Board of Water Commissioners for one 12,000,000-gal. pumping engine. Peter Kroeger is Clk. of Bd. For details see advertisement under "Contracts to Be Let."

Lancaster, Penn.—(Official)—The Borough of Lancaster plans to make improvements to the pumping station by adding vertical pumping engines and boilers. I. Carpenter is City Engr.

Philadelphia, Penn.—The low bidder for laying a 48-in. water main in 53d St. and in 57th St. was the McNichol Paving & Construction Co., at $42,596. Noted Nov. 12 and Jan. 14.

✚Philadelphia, Penn.—(Official)—The contract has been awarded to the SNARE & TRIEST CO., Broadway, New York, N. Y., at $443,440 for constructing a sedimentation basin at the Torresdale filters. Noted Jan. 14.

Dublin, Va.—Bids will be received, according to press reports, until Feb. 20 by J. A. Gaines, Clk., for making extensions to the water system.

Mingo, W. Va.—An election will be held to vote on the question of issuing $39,000 in bonds, the proceeds of which will be used for the construction of a water system.

La Grange, N. C.—The city plans to construct a water system and an electric-light plant.

Southport, N. C.—According to press reports the city will construct water and sewer systems at an estimated cost of $40,000. The J. B. McCrary Co., Atlanta, Ga., is Engr.

✚Columbia, S. C.—Contracts have been awarded to the HOPE ENGINEERING & SUPPLY CO., Pittsburgh, Penn., for laying about 10 miles of water and sewer mains; LORICK & LOWRANCE, Columbia, at $5543 for sewer pipe; and A. J. BOYLE, Baltimore, Md., at $26,833, will furnish the water pipe. Noted Nov. 26 and Jan. 14.

Walterboro, S. C.—Bonds for $18,000 have been sold, the proceeds of which will be used for the extension of the water system. Noted May 28 and July 30.

Richland, Ga.—An election will be held Mar. 24 to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for the extension of the water and light systems.

Lakeland, Fla.—Bids will be received until Mar. 18 by C. D. Clough, Secy. Bd. of Bond Trustees, for the purchase of $130,000 in bonds, the proceeds of which will be used for the improvement of the water system and electric light plant. Noted June 4 and Oct. 22.

Beloit, Ohio—The citizens contemplate constructing a water system. F. B. Crist is Village Clk.

✚Bowling Green, Ohio—The contract has been awarded by the Board of Trustees of the Bowling Green State Normal College to FITZPATRICK & HAFFNER, Columbus, at $45,881, for constructing a fireproof building, stack, tunnel system, water system and softening plant, steam mains and pumps. Noted Dec. 17 and Jan. 21.

Coshocton, Ohio—(Official)—Plans have been prepared by Chester & Fleming, Engr., Pittsburgh, Penn., for the construction of a 3,000,000-gal. reinforced-concrete covered reservoir. Noted Jan. 7.

East Liverpool, Ohio—(Official)—We have been advised that Chester & Fleming, Union Bank Bldg., Pittsburgh, Penn., was not awarded the contract for the construction of a mechanical filtration plant but has been retained by the city to prepare plans and supervise the construction of the mechanical filtration plant, pumping station and high service system. The estimated cost is $375,000. Noted Nov. 19 and Feb. 11.

Marion, Ohio—Permission has been granted to the Marion Water Co. to issue $60,000 in bonds, the proceeds of which will be used for the extension of its water system. Noted Nov. 19.

Napoleon, Ohio—The Board of Public Affairs, according to press reports, will retain an engineer to prepare plans for the installation of a filtration plant. Noted Dec. 24.

South Newburg, Ohio—(Cleveland post office)—(Official)—Bids will be received until noon, Feb. 27, by H. H. Bohnin, Clk., for constructing water mains in Turney Rd. and Granger Rd. Specifications are on file with Ralph Hecker, Leader News Bldg., Cleveland.

Springfield, Ohio—Bids will be received until Mar. 10 by the Building Commission for constructing a water system at the County Infirmary. Robert C. Gotwald, Gotwald Bldg., is Arch., and George McCord, 1533 North Limestone St., is Pres. of Comn.

Toledo, Ohio—Bids will be received until noon, Feb. 25, by A. W. Boardman, Dir. of Pub. Ser., for laying a 24-in. water main across the Maumee River.

Yellow Springs, Ohio—The Village Council plans to install a water system.

Bloomington, Ill.—Water mains will be laid in Longworth, Denver, Linden and Robinson St. The estimated cost is $5960. Seth S. Noble is Supt. of Water-Wks.

Cicero, Ill.—Water mains will be laid in South 61st Ave., South 60th Court and in West 25th Pl. L. Mongnerg is City Engr.

Herrin, Ill.—According to press reports the city will build a filtration plant at an estimated cost of $18,000.

+Ipava, Ill.—(Official)—The contract for making improvements and extensions to the water system has been awarded to MONIE & DUNBAR, St. Louis, Mo., at $5070. Other bidders were: Caldwell, Paulson & Weaver, $5528; Arrow Engineering Co., $5473 and T. H. Woolcax (incomplete), $4880. The Fuller Coult Co., St. Louis, Mo., is Engr. Noted Jan. 14.

+Appleton, Wis.—The contract for 5700 ft. of c.-i. water pipe has been awarded by the city to the AMERICAN CAST IRON PIPE CO., Birmingham, Ala., at $22.50 per ton.

Oshkosh, Wis.—The city plans to spend $40,000 for making improvements to the water system. B. J. Daly is Chn. of Executive Com.

Muscatine, Iowa—William Molis, Supt. of Water-Wks., has stated that the city will lay about 30 blocks of water mains this summer.

Manhattan, Kan.—Plans, prepared by Worley & Black, Engr., Kansas City, Mo., for the installation of a water system, have been approved by the City Commissioners. The estimated cost is $72,000. Noted Jan. 14.

Cut Bank, Mont.—The City Council has authorized the extension of the water system at an estimated cost of $8000. S. L. Potter is Mayor.

Fortine, Mont.—The Town Council plans to construct a water system, plans for which are being prepared.

Philipsburg, Mont.—The Council contemplates issuing bonds for the construction of a municipal water system.

St. Louis, Mo.—Bids will be received until noon, Feb. 19, by the Board of Public Service for installing two 350-hp. water tube boilers, coal handling machinery and six chain-grate stokers at High Service Station No. 2. William T. Findly is Secy.

+Sedalia, Mo.—(Official)—Contracts have been awarded by the Sedalia Water Co. to the PITTSBURGH FILTER MFG. CO., for a 3,000,000-gal. mechanical filter and to JOHNSON & SONS, Sedalia, for a reinforced-concrete covered reservoir. Chester & Fleming, Pittsburgh, Penn., is Engr. Noted Mar. 2, 1914.

Heber Springs, Ark.—The J. B. McCrary Co., Atlanta, Ga., has been retained by the city, according to press reports, to estimate the cost of the construction of water and sewer systems. Noted Dec. 17.

Groesbeck, Tex.—Bonds for $10,000 will be issued by the city, the proceeds of which will be used for the extension of the water system. J. W. Thompson is City Clk.

Magnolia Park, Tex.—(Houston post office)—Bids will be received until Feb. 23 by W. H. Farrington, Secy., for constructing a water system. Noted Dec. 24 and Feb. 4.

Wills Point, Tex.—An appropriation of $10,000 has been made for the construction of a distribution pipe for the water system. H. Gilchrist is Mayor.

+Cordell, Okla.—The contract for the construction of water-works extensions was awarded Feb. 9 to the HUMRICHOUSE CONSTRUCTION CO., at $64,150. Other bidders were: Municipal Engineering & Construction Co., $70,713; Sherman Machine & Iron Works, $71,677; Tonkawa Construction Co., $75,577; Hope Engineering & Supply Co., $77,763; Chas. H. Shaw, $79,302.60; Connor Construction Co., $79,841; F. W. Keeney & Co., $80,643; H. A. Kenner & Co., $83,230; L. F. Lee, $84,240; J. S. Terry Construction Co., $90,215 and Greoger, Little & Crawford, $97,615. The Benham Engineering Co., Oklahoma, Okla., is Consult. Eng. and will have charge of the supervision of the work. Noted Feb. 4.

Montrose, Colo.—(Official)—Bids will be received until 10 a.m., Feb. 25, by the City Council for the purchase of $90,000 in bonds, the proceeds of which will be used for the reconstruction and extension of the water system. A. E. Tuttle is City Clk. Noted Sept. 17.

Seattle, Wash.—Bids will be received until Mar. 15 by J. B. Cavanaugh, Burke Bldg., for two 30-in., one 10-in. and one 2½-in. electric pumps. The estimated cost is $30,000.

Oswego, Ore.—The Oswego Lake Water, Light & Power Co. has been incorporated by F. H. Strong, A. S. Pattulo and Isaac D. Hunt, Portland, for the purpose of constructing a water system.

Arcadia, Calif.—Bonds for $130,000 have been voted by the citizens, the proceeds of which will be used for the construction of a new water system. Noted Nov. 5.

Fresno, Calif.—The Mountain View Improvement Association plans to install a water system in its cemetery. A. L. Hobbs is Pres.

San Diego, Calif.—(Official)—The contract will be awarded to C. H. Julian, San Diego, for laying about 40,000 ft. of 28-in. steel pipe. Bids were opened Jan. 27. Noted Sept. 21.

+San Francisco, Calif.—A contract has been awarded by the Panama-Pacific International Exposition to JOHN R. CAHILL, at $14,575 for installing a filtration plant and pump for the auxiliary water-works.

Chatham, N. B.—An election will be held to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for the construction of a concrete reservoir.

Montreal, Que.—An appropriation of $100,000 has been made by the City Council for laying water pipe.

Hamilton, Ont.—Plans are being prepared by A. F. McCallum, City Engr., for the construction of a new pumping station. The estimated cost is $59,000.

Toronto, Ont.—Bids will be received until Mar. 2 by T. L. Church, Chn. Bd. of Control, for stop valves and a 36-in. check valve.

★Toronto, Ont.—(Official)—Bids will be received until noon, Apr. 13, by T. L. Church, Chn. Bd. of Control, for automatic and check valves. For details see advertisement under "Contracts to Be Let."

+Vancouver, B. C.—The contract has been awarded to the VANCOUVER PLUMBING & HEATING CO., Dominion Bldg., Vancouver, for constructing the Sister Creek water-supply at $98,612, in West Vancouver. Noted Dec. 24 and Jan. 14.

SEWERS

+Boston, Mass.—The contract for sewerage work at the Beach St. outlet has been awarded by the Public Works Department to the MARCELLO CONSTRUCTION CO., at $3907.

+Boston, Mass.—The contract has been awarded by the Public Works Department to M. ROSS & SON CO., at $18,744, for constructing sewers in East and South St. Bids were opened Jan. 26. Noted Jan. 21.

+Boston, Mass.—The contract for sewerage work at the Orleans St. outlet has been awarded to the MARCELL CONSTRUCTION CO., at $3765. Bids were opened Feb. 1. Noted Jan. 28.

Framingham, Mass.—A special Sewerage Committee will soon make a report of the advisability of extending the sewer system to Framingham Center and Saxonville. The estimated cost is $300,000.

+Northampton, Mass.—The contract has been awarded to WALDO BROS., Boston, at 76% of standard, by the Board of Sewer Commissioners for vitrified sewer pipe for 1915.

Hartford, Conn.—The contract for constructing sewers in Franklin Ave., Montowese St. and Victoria Rd. has been awarded to O'NEIL BROS., Farmington Ave., Hartford, at $8800. Noted Jan. 21 and Feb. 4.

+New Haven, Conn.—The contract has been awarded to THOMAS F. MAHER and R. D. DAILEY & CO., New Haven, at $7100, for constructing a storm-water sewer in Edgewood Ave. Bids were opened Feb. 11. Noted Jan. 28.

Briarcliff Manor, N. Y.—Plans have been completed by Clyde E. Potts, 30 Church St., New York, for the construction of a sewage disposal system. The estimated cost is $60,000.

★Mt. Morris, N. Y.—(Official)—Bids will be received until noon, Feb. 26, by the Municipal Board for constructing about nine miles of pipe sewers and sewage disposal works. C. C. Hopkins, Cutler Bldg., Rochester, is Engr. For details see advertisement under "Contracts to Be Let." Noted Dec. 24.

+New York, N. Y.—(Borough of Manhattan)—(Official)—The contract has been awarded to P. REILLY at $9190 for laying new sewers in various streets. Bids were opened Jan. 28. Noted Jan. 21, Feb. 4 and 11.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m., Feb. 26, by Maurice E. Connley, Pres. Borough of Queens, for constructing sewers in various streets.

Newark, N. J.—(Official)—Bids were received by the Passaic Valley Sewerage Commissioners for constructing Section 8, northerly portion, of the Main Intercepting Sewer as follows: (A) Tunnel method; (B) open trench method, Dock Contractor Co., Hoboken, (A) $347,711; Mason & Hanger Co., New York, N. Y., (A) $344,760, (B) $236,680; Booth & Flinn, Ltd., New York, N. Y., (A) $330,114; Charles A. Haskin, Boston, Mass., (A) $328,548; Arthur McMullen, New York, N. Y., (A) $320,350, (B) $319,195; Oscar Daniels Co., New York, N. Y., (A) $297,800, (B) $269,635; Newark Paving Co., Newark, (B) $294,221; Culp Co., Inc., Paterson, (B) $291,111, and the New York & New Jersey Construction Co., Newark, (B) $288,160.

Newton, N. J.—The Town Committee will construct sewers in Franklin, Foster and Thompson St. to connect with the Liberty St. sewer.

North Wildwood, N. J.—(Ottens post office)—The construction of a sewer system, estimated to cost $35,000, is contemplated by the town. L. M. Rice, Wildwood, is Engr.

Westfield, N. J.—The town is having plans prepared for the construction of a relief sewer in Rahway Ave.

West Chester, Penn.—According to press reports, at an election held Feb. 2 the citizens voted in favor of building a sewer system and disposal plant at an estimated cost of $28,000.

Baltimore, Md.—Bids will be received by the Board of Awards until Feb. 24 for constructing a storm-water sewer under Contract No. 36, covering section No. 2 East Low Level Interceptor. H. W. Rodgers, American Bldg., is Secy.

Southport, N. C.—See item under "Water Supply—Irrigation."

Walterboro, S. C.—Bonds for $12,000 have been sold, the proceeds of which will be used for the installation of a sewer system.

Granville, Ohio—(Official)—Bids will be received until noon, Mar. 9, by the Village Council for constructing a sewerage system and a sewage disposal plant.

Norwood, Ohio—Bids will be received until Feb. 3 by H. J. Pierson, Dir. of Pub. Ser., for constructing a storm water sewer.

+Sandusky, Ohio—(Official)—The contract for constructing a storm and sanitary sewer in Monroe St. has been awarded to M. J. CALLAN & SONS, Sandusky. Noted Dec. 31 and Jan. 14.

+Franklin, Ind.—A contract for constructing a sewer has been awarded by the City Council to LEE & PEDRICK, at $6500.

South Bend, Ind.—Bids will be received until Feb. 23 by A. P. Perley, City Clk., for constructing 12- and 18-in. vitrified pipe sewers.

+Manitowoc, Wis.—The contract for constructing sewers in Franklin and 13th St. has been awarded to W. C. BAHR, Manitowoc, Wis., at $17,880. Other bids were: H. A. Pitz, Manitowoc, $18,354; Gray-Robinson Co., Manitowoc, $18,935.

+Merrill, Wis.—A contract for constructing a part of the main sewerage system has been awarded by the Board of Public Works to THORNTON BROS., St. Paul, Minn., at $32,000.

Superior, Wis.—Bonds for $32,000 have been sold, the proceeds of which will be used for constructing sewers.

Virginia, Minn.—Official)—The City Council contemplates the construction of new sewers. The work will be done by day labor. E. F. Johnson is City Engr.

Broken Bow, Neb.—(Official)—At the election held Feb. 9 the question of issuing $17,000 in bonds for constructing sewers was defeated. Noted Feb. 4.

Norfolk, Neb.—According to press reports an election will soon be held to vote on the question of issuing $11,000 in bonds for constructing storm sewers.

+Mitchell, S. D.—(Official)—A contract for constructing a lateral sewer has been awarded to AIKEN CONSTRUCTION CO., Fargo, N. D., at $12,611. Other bids were: Alimo Engine & Supply Co., Omaha, Neb., $15,858; William B. Bosworth, Ada, Minn., $12,613; Pioneer Bridge Co., Mitchell, S. D., $15,550. Noted Jan. 21.

★Butte, Mont.—(Official)—Bids will be received until 5 p.m., Mar. 15, by John C. Driscoll, City Clk., for constructing 13 miles of 8-, 10- and 12-in. sanitary sewers for the South Side. W. J. Flood is Comr. Pub. Wks.

Mount Ayr, Mo.—Plans are being prepared by Theodore DeLay, City Engr., for constructing a sewer system.

Springfield, Mo.—Bids will be received until Mar. 2 by S. R. Fisher, City Engr., for constructing two district sewers, estimated to cost $12,000.

Lewistown, Idaho—Bids will be received about Feb. 25 for constructing about 12 blocks of lateral sewers. The estimated cost is $15,000.

Enterprise, Ore.—Bids will be received until Mar. 22, by the City Council for constructing a sewer system, estimated to cost $20,000. J. C. Edsall is Engr.

+Los Angeles, Calif.—The contract for constructing a sewer in Long Beach Ave. between Vernon Ave. and 36th St. has been awarded to J. C. WUKOJEVICH, at $7975.

Vancouver, B. C.—Press reports state that bids will be received until Mar. 1 by the Vancouver District Joint Sewerage and Drainage Board, 718 Granville St., for constructing the Clark Drive sewer. Noted Dec. 10.

Vancouver, B. C.—Press reports state that the City Engineer will prepare plans for constructing sewers in Tenth St., North Vancouver, estimated cost $16,000.

GARBAGE

Dublin, Ga.—The City Council has adopted a resolution providing for the installation of a garbage incinerator.

Valdosta, Ga.—Press reports state that the City Council is contemplating the installation of a garbage incinerator.

Cleveland, Ohio—The Council voted an appropriation of $30,000, Feb. 1, for the construction of improvements at the Newburg Heights garbage disposal plant.

★Dayton, Ohio—(Official)—Bids will be received until noon, Feb. 26, by Fowler J. Smith, City Pur. Agt., City Bldg., for furnishing the equipment for a garbage disposal plant. For details see advertisement under "Contracts To Be Let."

Lansing, Mish.—The Council has rejected all bids received for the collection of garbage. Noted Dec. 31.

Independence, Kan.—(Official)—C. H. Kerr, Mayor, writes that the city contemplates the construction of a garbage incinerator to cost about $5000. Noted Jan. 14.

Fort Worth, Tex.—Herring & Gregory, Consult. Engr., New York, has filed a report with the City Secretary on sewage disposal in which the construction of a garbage disposal plant is recommended.

STREETS AND ROADS

Boston, Mass.—It is proposed to construct a two-mile boulevard from Harvard Bridge to the Middlesex Fells Parkway across Cambridge and Somerville, in order to connect the Boston Park system with the Metropolitan North system. Estimated cost, $500,000. John R. Rablin is Ch. Engr. of Metropolitan Park Comn.

+Providence, R. I.—Contracts have been awarded by the Board of Contract & Supply for paving Broad St. to the NARRAGANSETT IMPROVEMENT CO., $117,373; Warren and Knight St. to the WARREN BROS. CO., Boston, Mass., $19,631 and $15,568, respectively. Noted Dec. 24 and Jan. 7.

New York, N. Y.—(Borough of Manhattan)—(Official)—All bids received Feb. 4 by the President of the Borough for regrading 155th St. from Broadway to Riverside Drive and for widening a section of Riverside Drive were rejected. The work will be readvertised.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until noon, Feb. 24, by R. A. C. Smith, Comr. of Docks and Ferries, Pier A, Battery Pl., North River, for improving Marginal St. and piers of the North, East and Harlem Rivers.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be reecived until 2 p.m., Feb. 26, by the Borough President for improving 156th St. from Marginal St. to Eighth Ave., and east and west sides of Second Ave. from 15th to 17th St. in front of Stuyvesant Park; also for 6000 cu.yd. paving gravel, 7000 cu.yd. sand, 2500 cu.yd. concrete gravel and 50000 cu.yd. asphaltic wearing surfacing sand.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until noon, Feb. 23, by the Borough President, for improving Cotton St. from Arrietta to Griffin St.

Jersey City, N. J.—The Board of City Commissioners will receive bids until 2 p.m., Feb. 25, for paving High St. from Summit to Baldwin Ave. with brick pavement. Michael I. Fagen is City Clk.

★Mount Holly, N. J.—(Official)—Bids will be received until 11.30 a.m., Mar. 1, by the Road Committee of the Board of Chosen Freeholders for resurfacing several stone roads in Burlington County. For particulars see advertisement under "Contracts To Be Let."

★Roselle Park, N. J.—(Elizabeth post office)—(Official)—Bids will be received until 8.30 p.m., Mar. 5, by the Mayor and Borough Council for constructing concrete pavements and appurtenances. For particulars see advertisement under "Contracts To Be Let."

Rutherford, N. J.—Press reports state that the City Council plans to macadamize Erie Ave. at an estimated cost of $20,000. Wise & Watson, Rutherford, is Engr.

Trenton, N. J.—The Trenton & Mercer County Traction Co. contemplates repaving South Clinton Ave. from Liberty to Remsen St.

Allentown, Penn.—The State Highway Department contemplates building a modern highway, from Allentown, through Bethlehem, to Easton, a distance of about 17 miles.

Allentown, Penn.—Bids will be received until Mar. 15 by the Commissioners of Lehigh County for rebuilding the turnpike between Macungie and Shimersville in Upper Milford Township. H. C. Weinert is Clk. of County County Comrs.

Bethlehem, Penn.—The City Council contemplates paving streets during the coming season as follows: West Broad st. from First to Tenth Ave., East Broad St. from Center to Linden St., and Linden St. from Broad St. to the borough limits, a total distance of about three miles. Victor E. Tice is Secy. of Council.

+Baltimore, Md.—A contract for paving various streets with sheet asphalt has been awarded to the AMERICAN PAVING CO., Montebello and Jenkins Ave.

+Baltimore, Md.—The contract for grading and paving Section 2 of Key Highway with granite blocks on concrete base has been awarded to the CONSOLIDATED ENGINEERING CO., 243 Calvert Bldg., at $196,588.

Huntington, W. Va.—The citizens of Cabell County contemplate voting on the question of issuing $600,000 in bonds for constructing roads.

Parkersburg, W. Va.—At a recent election the citizens voted in favor of issuing $200,000 in bonds for constructing sidewalks, curbs and sewers. Allen C. Murdoch is Mayor.

Marshall, N. C.—Bonds for $150,000 were sold Jan. 18, the proceeds of which will be used for improving roads.

+Smithfield, N. C.—(Official)—A contract for constructing a road in Ingram Township, Johnston County, has been awarded to HENNING & HAGEDORN, Walnut Cove, N. C., at $40,000. Noted June 25.

Taylorsville, N. C.—The citizens of Alexander County will vote Mar. 9 on the question of issuing $150,000 in bonds for constructing roads.

Bradentown, Fla.—The citizens of Sarasota-Venice District, Manatee County, will vote Mar. 15 on the question of issuing $250,000 in bonds for constructing roads and bridges.

Miami, Fla.—The citizens of Dade County will vote Mar. 16 on the question of issuing $100,000 in bonds to place hard surface oil coating on main highway from the north county line to Florida City.

+Mobile, Ala.—The contract for surfacing Capitol St. has been awarded to F. G. PROUDFOOT, Chicago, Ill., at $4720.

Troy, Ala.—According to press reports the City Council contempltaes paving a number of streets.

Clarksdale, Miss.—Bids will be received until Mar. 3 by the Commissioners of Coahoma County for constructing 3½ miles of gravel road, 16 ft. wide. J. R. Shidler is Engr. S. L. Carr is County Clk. Noted July 2.

Laurel, Miss.—The City Council contemplates paving Front and Seventh St.

Starkville, Miss.—Bids will be received until Mar. 1 by the Board of Supervisors for the sale of $130,000 in bonds, the proceeds of which will be used for improving roads. Noted Oct. 8.

Paducah, Ky.—An election will be held Feb. 27 to vote on the question of issuing $300,000 in bonds for constructing roads.

Canton, Ohio—Bids will be received until Feb. 24 by C. L. Stoner, Clk. of the Bd. of Comrs., for improving the Alliance-Bolton, Massillon-Millersburg, Magnolia-Sparta and Navarre-Justus Rd.

+Lima, Ohio—The contract for paving North West St. has been awarded to MICHAEL O'BRIEN, Lima, at $10,203.

Marysville, Ohio—Bids will be received until Feb. 27 by Charles A. Morelock, County Audr., for improving the Houseman Rd.

+Mt. Gilead, Ohio—The contract for constructing the Mozier-Gruber Rd., Canaan Township, has been awarded to J. D. GILLESPIE, at $10,454. Noted Jan. 14.

+Norwalk, Ohio—The contract for paving League, Corwin and Prospect St. has been awarded to the MODERN CONSTRUCTION CO., at approximately $47,253. Noted Jan. 28.

Ottawa, Ohio—Bids will be received until 1 p.m., Feb. 24, for macadamizing two miles of road. E. McCaharan is Audr. of Putnam County.

+Troy, Ohio—The contract for paving South Market St. has been awarded to the ANDREWS ASPHALT CO., Hamilton, at $23,000. Noted Jan. 21.

Zanesville, Ohio—Bids will be received until Feb. 27 for improving Adamsville Rd. A. J. Voll is Clk. of Bd. of Pub. Ser.

Indiana—(Official)—Bids will be received for constructing roads in Indiana as follows:

Wabash, until 1.30 p.m., Mar. 3, by the Commissioners of Wabash County for constructing three roads in Noble Township and one in Waltz Township.

Columbus, until 10 a.m., Mar. 5, by the Commissioners of Bartholomew County for constructing crushed stone roads in Hawcreek and Clifty Townships. W. H. Scott is County Audr.

Warsaw, until 2 p.m., Mar. 5, by the Commissioners of Koscuisko County for constructing a road in Lake Township. V. D. Mock is County Audr.

+Delphi, Ind.—A contract for constructing the Jefferson Township Rd. has been awarded by the Commissioners of Carroll County to SMITH BROS., Flora, Ind., at $5100.

Monticello, Ind.—(Official)—Bids will be received until 10 a.m., Mar. 2, by the Commissioners of White County for constructing a road in West Point Township. A. G. Fisher is Audr.

Peru, Ind.—(Official)—Bids will be received until noon, Mar. 8, by the Commissioners of Miami County for constructing gravel roads in Butler, Jefferson and Washington Townships. J. K. McElheny is County Audr.

Plymouth, Ind.—Bids will be received until 2 p.m., Mar. 15, by George A. Maxey, County Treas., for the sale of $91,500 in bonds for constructing highways.

+Rensselaer, Ind.—A contract for constructing a stone road in Walker Township has been awarded to A. S. KEENE, Wheatfield, Ind. Noted Jan. 14.

+Shelbyville, Ind.—A contract for constructing a gravel road in Shelby County has been awarded to WILLIAM AVERY, Waldron, at $8100. Noted Jan. 21.

+Wabash, Ind.—(Official)—A contract for constructing a macadam road in Liberty Township has been awarded by the Commissioners of Wabash County to TABER & HULLIHAN, Wabash, at $13,727. Noted Jan. 21.

Flint, Mich.—(Official)—Bids will be received until Feb. 23 for constructing an asphalt plant. Ezra C. Shoecraft is City Engr.

Peoria, Ill.—The Board of Local Improvements has voted in favor of paving Stanley St. with brick.

Springfield, Ill.—(Official)—Bids will be received until 11 a.m., Feb. 23, by the State Highway Commission for road work as follows: Cook County, Route 3, Section G, 12,957 lin.ft. of concrete, estimated cost $34,470; Madison County, Routes 1 and 11, Section A, 9000 lin.ft. of brick, estimated cost $33,366; Winnebago County, Route 11, Section B, 6200 lin.ft. of concrete, estimated cost $18,582; Winnebago County, Route 10, Section A, 5280 lin.ft. of concrete, estimated cost $15,563; Whiteside County, Route 1, Section B, 4400 lin.ft. of concrete, estimated cost $8816; Whiteside County, Route 1, Section C, 2000 lin.ft. of concrete, estimated cost $4152; Alexander County, Route 1, Section A, 5100 lin.ft. of gravel, estimated cost $5992. All cement to be furnished by the State for all counties with the exception of Alexander County.

Watertown, Wis.—Bids will be received until 2 p.m., Mar. 9, for improving Eighth St. from Main St. to Western Ave.

Mason City, Iowa—(Official)—Bids will be received until 10 a.m., Feb. 24, for paving 70,000 sq.yd. with either sheet asphalt, brick blocks or concrete. The estimated cost of the work is $126,000. F. P. Wilson is City Engr.

Lewistown, Mont.—Plans are being prepared by the City Engineer for about 40,000 sq.yd. of paving in the business section.

Lake Village, Ark.—The city contemplates paving various streets. William Yerger is Mayor.

Anderson, Tex.—The citizens of Grimes County will vote Mar. 3 on the question of issuing $65,000 in bonds for constructing roads in District No. 5, Precinct No. 1.

Corpus Christi, Tex.—At the election held Feb. 5 the citizens voted in favor of issuing $100,000 in bonds for street paving. Noted Jan. 7 and 14.

Cuero, Tex.—At a recent election the citizens of Dewitt County voted in favor of issuing $50,000 in bonds for constructing about 14 miles of road.

Denton, Tex.—At a recent election the people voted in favor of issuing $10,000 in bonds for improving streets.

Kountze, Tex.—Press reports state that an election will be held Feb. 20 for the purpose of voting on the question of issuing $150,000 in bonds for constructing and improving roads in District No. 1.

Longview, Tex.—The citizens of Gregg County contemplate holding an election for the purpose of voting on the question of issuing $300,000 in bonds for constructing about 75 miles of macadam roads.

Davenport, Wash.—Bids will be received until Mar. 2 for constructing 12.53 miles of gravel macadam road. H. D. Mills is County Comr.

+North Yakima, Wash.—The contract for constructing the Granger-Outlook Rd. has been awarded to A. H. ZANE & CO., at $9475.

Tacoma, Wash.—W. C. Raleigh, City Engr., has been authorized by the City Council to prepare plans for paving Pacific Ave. from 64th to 96th St.

+Portland, Ore.—The contract for grading and constructing concrete sidewalks on 72d St., S. E., has been awarded to ARTHUR G. KERN, at $5116.

+Portland, Ore.—A contract for paving East 45th St. with asphaltic concrete has been awarded to MONTAGUE-O'REILLY CO., at $9552.

Eureka, Calif.—Bonds for $150,000 were sold Feb. 9, the proceeds of which will be used for constructing and improving highways.

Long Beach, Calif.—Bids will be received until 2 p.m., Feb. 24, by the Board of Public Works for improving Anaheim St.

+Los Angeles, Calif.—The contract for improving West First St. from Canal to J St. has been awarded to FAIRCHILD-GILMORE WILTON CO., at $32,002.

Redwood City, Calif.—(Official)—Bids will be received until Mar. 1 by the Board of Supervisors of San Mateo County for constructing 4.26 miles of oil macadam on Menlo Park to Portola Rd., 2.10 miles of oil macadam and ½ mile concrete base on San Mateo to Half Moon Bay Rd.

Redwood City, Calif.—(Official)—Bids will be received until Mar. 15 by the Board of Supervisors of San Mateo County for constructing 6 miles macadam pavement on Colma to Half Moon Bay Rd., 5 miles macadam pavement on Half Moon Bay Rd. to Pescadero Rd., 2 miles oil macadam pavement on Belmont Rd. to Crystal Springs Rd., and 2.5 miles gravel road near La Honda.

+Redwood City, Calif.—The Board of Supervisors of San Mateo County has awarded a contract for the construction of the highway from Menlo to Portola, to the CLARK & HENERY CONSTRUCTION CO., at $23,564; and for the construction of the highway from Colma to Edgemar to the COLMA CONSTRUCTION CO., at $44,133.

+Richmond, Calif.—The City Council has awarded a contract for street paving to GEORGE W. CUSHING, Richmond, at $19,309.

+Sacramento, Calif.—(Official)—Bids were received Feb. 1 by the State Highway Commissioners for constructing a road in Butte County from Nelson to Chico, about 12.6 miles as follows: Tieslau Bros., San Francisco, $81,885; Chico Construction Co., Chico, $84,236; M. Jacinto, Sacramento, $92,208; Hoffman & McLaren, Oakland, $88,891; John W. McDonald, Jr., San Francisco, $84,853; Twohy Bros. Co., San Francisco, $91,179; WHITLOCK & GORRILL, San Francisco, $70,042 (awarded contract); A. H. Gorrill & A. W. Gorrill, San Francisco, $71,268; F. Rolandi, San Francisco, $74,491; L. F. Gerdetz, San Francisco, $77,106. Noted Jan. 21.

INDUSTRIAL WORKS

Southbridge, Mass.—The Dupaul-Lockhart Co. has been incorporated with a capital of $150,000. The company will construct a factory on Worcester St.

Providence, R. I.—The Dolby Ice Cream Co. will construct a two-story, 50x60-ft. plant. Frank E. Brown, New Haven, Conn., is Arch.

+Bridgeport, Conn.—The American Chain Co. has awarded the general contract to the SAMUEL AUSTIN & SONS CO., 14,230 Euclid Ave., Cleveland, Ohio, for the construction of two buildings at its plant on Connecticut Ave. The structures will be one-story, 35x70 ft., and one-story, 54x132 ft.

Mount Vernon, N. Y.—Plans have been revised by S. A. Guttenberg, Arch., for the construction of a two-story, 40x110-ft. factory on Pearl St. for the Benford Mfg. Co. Noted Aug. 6 and Oct. 1.

Mount Vernon, N. Y.—A. Murray Jenks, Arch., has prepared plans for the construction of a two-story, 50x100-ft. factory at West Mount Vernon for the Willow Brook Dairy Co.

New York, N. Y.—(Borough of Bronx)—The Rock Plaster Mfg. Co. plans to construct three corrugated-steel storage houses. The estimated cost is $12,000. A. C. Fox, 1123 Broadway, New York, is Arch.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by P. Tillion & Son, Arch., 381 Fulton St., for the construction of a two-story mill on Vandam St. near Nassau Ave. for J. W. Moore, 307 Kingsland Ave. Estimated cost, $10,000.

New York, N. Y.—(Borough of Brooklyn)—Abraham Weinstein, Arch., 100 Richardson St., is preparing plans for the construction of a two-story 73x80-ft. factory on Frost St. The estimated cost is $14,000.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by I. G. Feiner and S. Walter Katz, Arch., 505 Fifth Ave., for the construction of a 16-story, 39x249-ft. factory and store building at Broadway and Sixth Ave. near 30th St. for Walter F. Hopper. The estimated cost is $350,000.

+Rochester, N. Y.—Contracts for the construction of a five-story, 100x153-ft. warehouse on Exchange Ave. for George C. Buell & Co., have been awarded as follows: General contract, E. K. FENNO, Syracuse; steel, AMERICAN BRIDGE CO. The estimated cost is $75,000. Noted Dec. 3.

Rochester, N. Y.—Plans have been prepared by J. H. Oberlies for the construction of a two-story, 84x207-ft. addition on Norton and Hollenbeck St. for W. N. Clark & Co. The estimated cost is $50,000.

Tuckahoe, N. Y.—W. L. Stoddard, Arch., 9 East 40th St., New York, is preparing plans for the construction of a four-story, 50x150-ft. factory and office building for the Hodgman Rubber Co., 806 Broadway, New York. The estimated cost is $75,000.

Asbury Park, N. J.—The Mergaugey-Payntar Storage & Express Co., 1001 First Ave., will rebuild its plant, recently destroyed by fire with a loss of $175,000.

Camden, N. J.—The Keystone Leather Co. has had plans prepared by William Steele & Sons Co., Arch., Philadelphia, Penn., for the construction of a four-story, 66x224-ft. reinforced-concrete factory. The estimated cost is $90,000.

+Leonia, N. J.—The BELMONT BRIDGE WORKS has been awarded the contract for 350 tons of steel for the construction of a factory and studio for the Universal Film Mfg. Co. Noted Jan. 14.

Trenton, N. J.—(Official)—Frank W. Bunn, Engineering Dept. of John A. Roebling's Sons Co., informs us that general plans are being considered but nothing definite has been decided for the reconstruction of its plant. The work will be in charge of the company's forces. Noted Feb. 4.

Lebanon, Penn.—Burdan Bros., Partridge Ave. and the Cornwall & Lebanon R.R., is having plans prepared for the construction of a two-story factory. The estimated cost is $20,000.

+Pen Argyle, Penn.—The Lehigh & New England R.R., Bethlehem, has awarded the contract to F. D. HYDE, 90 West St., New York, N. Y., for the construction of a group of concrete shops. The group includes a 160x260-ft. main building, a 40x250-ft. storehouse and office building, an oil storage house and a roundhouse. The entire cost is about $100,000. S. D. Warriner, Philadelphia, is Pres., and H. G. Bonney, Pen Argyle, is Gen. Foreman of Shops.

+Philadelphia, Penn.—The contract for the construction of a plant for the Norris Market Ice Mfg. & Cold Storage Co., Third and Norris St., has been awarded to the PHILIP HAIBACH CONTRACTING CO., 26th and Thompson St. Estimated cost, $60,000. Peuckert & Wunder, 310 Chestnut St., is Arch.

Philadelphia, Penn.—Bids will be received about Mar. 1 for the construction of an eight-story reinforced-concrete warehouse at Delaware Ave. and Pine St. for the Pennsylvania Warehousing & Safe Deposit Co., 113 South Third St. The estimated cost is $100,000. Noted Jan. 28.

Philadelphia, Penn.—Plans have been prepared for the construction of a triangular, reinforced-concrete factory at 18th and Cambria St. for the Linde Air Products. Noted Oct. 22.

Pittsburgh, Penn.—(Official)—Plans are being prepared by Charles Bickel, Arch., May Bldg., for the construction of an eight-story, 91x116-ft. store and warehouse for the Logan-Gregg Hardware Co. Noted Feb. 4.

Pittsburgh, Penn. — Bids are being received by McKim, Meade & White, Arch., 101 Park Ave., New York, N. Y., for the construction of an eight-story, 222x350-ft. fireproof warehouse at 13th and Etna St.

Pittsburgh, Penn.—Dennis F. Shanahan has purchased a site for the construction of a 130x152-ft. warehouse and garage at Magee and Bluff St.

Baltimore, Md.—The Atlantic Can Co. is having plans prepared by W. O. Sparklin, Arch., for the construction of a three-story, 80x162-ft. warehouse at Boston and Chester St.

+Port Covington, Md.—(Baltimore post office)—The contract for the construction of a fireproof grain elevator for the Western Maryland Ry. has been awarded to the JAMES A. STEWART CO., INC., 30 Church St., New York, N. Y. Estimated cost, $600,000. Noted under Baltimore, Md., Nov. 26.

Fort Thomas, Ky.—H. M. McGraw, representing New York capitalists, has purchased a 100-acre site. Plans are being prepared by Zettel & Rapp, 607 Johnston Bldg., Cincinnati, Ohio, for the construction of a $600,000 film manufacturing plant on the property.

Louisville, Ky.—The J. F. Kurfees Paint Co. has received a permit to construct a four-story, 45x204-ft. factory and warehouse at Brook and Market St. The estimated cost is $50,000.

Cincinnati, Ohio—D. Gruen Sons & Co., 301 Johnston Bldg., will construct a plant on McMillan St. The estimated cost is $50,000.

Cleveland, Ohio—Plans have been prepared by Wilbur J. Watson & Co., Engr., Leader-News Bldg., for the construction of a two-story metallurgical and refining plant at 5302 Sweeney Ave., for the Lake Erie Smelting & Refining Co. The estimated cost is $25,000.

Cleveland, Ohio—Plans have been prepared by Charles F. White, Arch., Citizens Bldg., for the construction of a one-story warehouse at 656 Broadway Ave. for the Peter Black Estate. Estimated cost, $10,000.

+Kalamazoo, Mich.—The contract for the construction of a one-story, 70x330-ft. plant for the Kalamazoo Vegetable Co. has been awarded to GERARD VAN ECK, 804 Davis Ave. The estimated cost is $70,000. G. G. Worden, 807 Kalamazoo National Bank Bldg., is Arch. Noted Dec. 24.

Ludington, Mich.—The Petit Salt Co., foot of 12th St., Milwaukee, Wis., will construct a plant for the manufacture of salt. The estimated cost is $1,000,000. C. M. Petit is Secy.

+West Allis, Wis.—The Allis-Chalmers Mfg. Co. has awarded the general contract for the construction of a one-story, 60x140-ft. factory to KLUG & SMITH, Arch. and Engr., Mack Blk., Milwaukee.

Perry, Iowa—The Globe Mfg. Co. will rebuild its plant recently destroyed by fire with a loss of $130,000. B. C. Dilenbeck is Pres.

Minneapolis, Minn.—The Carr-Cullen Co. will construct a three-story brick warehouse at 901 Ramsey St., N. E. The estimated cost is $10,000. C. E. Bell, Security Bank Bldg., is Arch.

Fort Worth, Tex.—J. N. Brooker will rebuild the two-story warehouse at 245 West 15th St., recently destroyed by fire with a loss of $100,000.

Portland, Ore.—Plans have been prepared by Jacobberger & Smith, Arch., for the construction of two-story, 84x104-ft. addition at East 28th and Multnomah St. for the Doernbecher Mfg. Co. The company contemplates the construction of a six-story, 100x150-ft. addition.

Portland, Ore.—The Union Meat Co. is preparing to expend $100,000 on improvements and extensions. The company also plans to enlarge its plant at a cost of $500,000.

Los Angeles, Calif.—Houghton Sawyer, Arch., Shreve Bldg., San Francisco, has prepared plans for the construction of a 80x140-ft. warehouse and factory on East Eighth St., for the General Chemical Co. of California, 2433 East Eighth St., Los Angeles.

San Francisco, Calif.—The American Can Co., Mills Bldg., has recently purchased a site for the construction of a can factory. R. H. Gray is Local Representative.

Van Nuys, Calif.—The Van Nuys-Lankershim-Marian Produce & Canning Association, recently organized, plans to construct a packing plant and cannery at Van Nuys and Owensmouth. G. G. Williamson of the Orange County Vegetable Growers' Association is Pres. and A. J. Boulanger is Mgr.

Brantford, Ont.—The Brantford Scale Co., Ltd., is considering bids received for the construction of a three-story, 45x 50-ft. factory. The estimated cost is $20,000. J. L. Howard, 22 Dalhousie St., is Mgr.

Lindsay, Ont.—The Sylvester Mfg. Co., Ltd., Kent St., contemplates the construction of a factory for the manufacture of gasoline engines. The estimated cost is $10,000.

Thorold, Ont.—The Exolson Co., manufacturer of artificial abrasives, will construct an addition to its plant. The estimated cost is $20,000. C. J. Brockbank is Mgr.

FEDERAL GOVERNMENT WORK

Timber Bulkhead—Fort Rodman, Mass.—(post office, New Bedford)—Bids will be received by the Constructing Quartermaster, until noon, Feb. 25, for constructing a timber bulkhead at Fort Rodman.

★Dredging—New London, Conn.—Bids will be received by Maj. G. B. Pillsbury, U. S. Engineer Office, New London, until 2 p.m., Mar. 18, for dredging in the Connecticut River, below Hartford.

+Rebuilding Life-Saving Station and Boat House—Bay Shore, N. Y.—The contract for rebuilding the life-saving station, boat house, etc., has been awarded to the H. H. SMITH BUILDING CO., East Main St., Long Island City, N. Y. The work will cost about $8000.

+Repair Work—New York, N. Y.—The contract for exterior sand blasting of stonework, pointing, and painting exterior iron work on the new post office and court house, New York, has been awarded to NEPTUNE B. SMYTH, 413 East 34th St., New York, at $7249.

★Cement—New York, N. Y.—Bids will be received by Col. W. M. Black, Army Bldg., 39 Whitehall St., New York, N. Y., until noon, Feb. 26, for furnishing and delivering 32,000 bbl. of American Portland cement.

★+Repairs to Bulkhead—Cape Henlopen, Del. (Lewes post office)—The contract for making repairs and extensions to timber groynes and bulkhead at Cape Henlopen, has been awarded to WILLIAM A. RUSSELL, Lewes, Del., at $5.84 per lin.ft. Noted Jan. 14.

Post Office—Smyrna, Del.—Bids will be received until 3 p.m., Mar. 29, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for constructing the post-office at Smyrna.

Buildings—Indian Head, Md.—Bids were received as follows Feb. 13, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of three or four dry houses for smokeless powder at the Naval Proving Ground, Indian Head: Penn Bridge Co., Bond Bldg., Washington, D. C., four, $21,590; three, $16,190; Richard H. Knott, Indian Head, Md., four, $27,000; three, $6750 each; James L. Marshall, 700 10th St., N. W. Washington, D. C., four, $22,976; three, $17,232; Melton Construction Co., Real Estate Trust Bldg., Washington, D. C., four, $23,000; three, $15,300; John H. Nolan Construction Co., Munsey Bldg., Washington, D. C., four, $21,065; three, $15,798; M. A. Weller, 627 F St., N. W. Washington, D. C., four, $21,957; three, $16,757; C. N. Dement, Indian Head, Md., four, $27,800; three, $20,850.

+Remodeling Pumping Plant—Anacostia, D. C.—The contract for remodeling the pumping plant at the Government Hospital for the Insane has been awarded to L. P. JACOBS, Newark, Del., at $14,750.

Sewerage, Drainage and Water Supply System—Washington, D. C.—An appropriation of $60,000 is made in the civil sundry bill for reconstructing the sewerage, drainage and water supply system within the capitol grounds.

★Sewers—Washington, D. C.—Bids were received for the construction of the Pinehurst Service Sewer, (a) 7500 cu.yd. of ordinary excavation; (b) 85 cu.yd. sewer brick masonry; (c) 2080 lin.ft. 12-in. sewer pipe; (d) 4830 lin.ft. 10-in. sewer pipe; also for the construction of the Hillbrook Service Sewer, (a) 7600 cu.yd. ordinary excavation; (b) 75 cu.yd. sewer brick masonry; (c) 2160 lin.ft. 24-in. sewer pipe; (d) 1870 lin.ft. 12-in. sewer pipe; (e) 1860 lin.ft. 10-in. sewer pipe, as follows: Bruno Pizzimenti, Seneca Falls, N. Y., Pinehurst, (a) $1.08; (b) $20; (c) 97c.; (d) 85c.; Hillbrook, (a) $1.48; (b) $20; (c) $1.50; (d) 97c.; (e) 85c.; Warren F. Brenizer & Co., 141 I St. N. W. Washington, D. C., (a) 44c.; (b) $13; (c) 60c.; (d) 53c.; Hillbrook, (a) 90c.; (b) $12; (c) 95c.; (d) 55c.; (e) 47c.; James M. Bean Construction Co., Fourth and M St., N. E., Washington, D. C., Pinehurst, (a) 65c.; (b) $14; (c) 53c.; (d) 48c.; George W. Hyman, 2117 E St., N. W., Washington, D. C., Pinehurst, (a) 40c.; (b) $12; (c) 48c.; (d) 44c.; Hillbrook, (a) 65c.; (b) $14; (c) $1.10; (d) 60c.; (e) 50c.; William F. Cush, 201 S St. N. E. Washington, D. C., Pinehurst, (a) 56c.; (b) $14; (c) 58c.; (d) 52c.; Hillbrook, (a) $1.55; (b) $15; (c) 85c.; (d) 60c.; (e) 55c. Noted Feb. 4.

✚Building—Arlington, Va.—The Commission-in-Charge of the Arlington Memorial Amphitheater has awarded the contract for the construction of the Memorial to the GEORGE A. FULLER CO., New York, at $519,000, using Danby marble. The balance remaining from the $750,000 appropriated by Congress will be used by the Committee for the approaches and similar improvements. Noted Nov. 19 and Dec. 24.

✚Grading—Arlington, Va.—The contract for grading about the Maine Memorial, Arlington National Cemetery, Va., has been awarded to CHARLES H. TOMPKINS, Washington, D. C. Noted Dec. 10 and 24.

Bridge—Fortress Monroe, Va.—Bids will be received by the Quartermaster, until noon, Mar. 3, for constructing a concrete foot bridge across the moat, which will include the changing of the location of the electrical conduit.

✚★Breakwater—Cape Lookout, N. C.—The contract for the construction of a breakwater, including shore connections, at Cape Lookout, has been awarded to E. L. TAYLOR & CO., Medina, N. Y., at $1,073,358. Noted Nov. 26 and Jan. 14.

Building—Wilmington, N. C.—All bids received for the construction of medical officer's quarters at the U. S. Marine Hospital, Wilmington, have been rejected, as the lowest bid exceeded the amount appropriated.

★Dredging—Charleston, S. C.—Bids will be received until noon, Mar. 19, by Maj. G. A. Youngberg, U. S. Engineer Office, for dredging in Ashley River, S. C.

★Dam, Building, Etc.—Harrisonburg, La. — The following are the bids received for building Dam No. 2, a lockmaster's dwelling, etc., on the Ouachita River at Harrisonburg: Miller Engineering Co., Southern Trust Bldg., Little Rock, Ark., $115,848; Midland Bridge Co., Kansas City, Mo., $186,358; Blodgett Construction Co., Kansas City, Mo., $205,264; George C. Hodgson, Dayton, Ohio, $185,067. Noted Dec. 10.

✚Lock Gates—Kentucky—The contract for furnishing and erecting lockgates, for Dam No. 14, Ohio River, has been awarded to the PENN BRIDGE CO., Beaver Falls, Penn., at $28,841.

✚Lock and Dam—Maysville, Ky. — The contract for constructing lock and dam No. 33, Ohio River, has been awarded to the BATES & ROGERS CONSTRUCTION CO., Chicago, Ill., at $972,544. Noted Dec. 31 and Feb. 4.

Post Office—Tiffin, Ohio—Bids were received for the construction of a post office at Tiffin, (a) limestone faced; (b) sandstone faced; (c) Ohio sandstone faced; (d) brick-faced, limestone trimmings; (e) brick-faced, sandstone trimmings; (f) brick-faced, Ohio sandstone trimmings, as follows: Westchester Engineering Co., White Plains, N. Y., (a) $72,700; (b) $79,900; (c) $79,900; (d) $70,700; (e) $77,500; (f) $77,500; Volney E. Taylor, Huntington, W. Va., (a) $77,000; (b) $79,000; (c) $79,000; (d) $76,000; (e) $77,000; (f) $77,000; James Devault, Canton, Ohio, (a) $67,300; (c) $71,300; (d) $66,460; (f) $69,634; Reveron Construction Co., Uniontown, Ala., (a) $71,122; (b) $74,780; (c) $72,395; (d) $70,356; (e) $71,125; (f) $70,123; F. F. Schellenberg & Co., Pittsburgh, Penn., (a) $67,000; (b) $71,000; (c) $71,000; (d) $65,000; (e) $69,000; (f) $69,000; Thomas W. Cissel, Wooster, Ohio, (a) $73,816; (b) $79,772; (c) $79,772; (d) $71,761; (e) $77,700; (f) $77,700; Charles W. Gindele & Co., Chicago, Ill., (a) $72,000; (c) $76,000; (d) $70,700; (f) $74,400. E. F. Abbott Construction Co., New York, (a) $71,637; (b) $73,000; (c) $73,000; (d) $69,000; (e) $71,900; (f) $71,900; Potters' Lumber Co., East Liverpool, Ohio, (a) $71,460; (b) $74,700; (c) $75,000; (d) $70,460; (e) $72,900; (f) $73,400; Ohio Building & Construction Co., Cincinnati, Ohio, (a) $72,480; (b) $72,990; (c) $72,140; (d) $71,330; (e) $70,990; (f) $70,490; W. H. Fissell & Co., New York, (a) $68,670; (b) $72,923; (c) $72,923; (d) $66,703; (e) $69,749; (f) $69,749; Harry A. Eigenrauch, Pittsburgh, Penn., (a) $80,000; (b) $80,000; (d) $80,000; (e) $80,000; (f) $80,000; (c) $82,700; Hossler Bros., Tiffin, Ohio, (a) $90,309; (b) $92,709; (c) $91,809; (d) $88,192; (e) $90,835; (f) $90,036; R. S. Moore, Lafayette, Ind., (a) $72,712; (c) $75,881; (d) $69,906; (f) $72,928; Bright Construction Co., Toledo, Ohio, (a) $74,292; (c) $79,292; (d) $72,292; (f) $76,882; John G. Unkefer & Co., Minerva, Ohio, (a) $67,352; (b) $72,352; (c) $72,352; (d) $65,552; (e) $70,052; (f) $70,052; J. S. Rogers, Moorestown, N. J., (a) $75,900; (b) $78,000; (c) $78,000; (d) $74,100; (e) $73,800; (f) $73,800; Christ Kanzler & Son, Evansville, Ind., (a) $74,424; (b) $77,424; (d) $73,738; (e) $76,300; J. L. Crouse, Greensboro, N. C., (a) $73,727; (b) $77,227; (c) $76,727; (d) $72,727; (e) $75,725; (f) $75,425; Charles McCaul Co., Philadelphia, Penn., (a) $69,660; (b) $74,260; (c) $73,960; (d) $68,160; (e) $72,760; (f) $72,560; Colonial Construction & Supply Co., Charlottesville, Va., (a) $66,793; (c) $69,793; (d) $64,187; (f) $66,687. Noted Dec. 17.

Repairing Post Office and Court House—Des Moines, Iowa —Bids will be received until 3 p.m., Mar. 23, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for repairing and remodeling the post office and court house at Des Moines.

✚Post Office—McCook, Neb.—The contract for the construction of a post office at McCook has been awarded to C. E. GOODHAND, Ord, Neb., at $107,278. Noted Jan. 7 and Feb. 4.

★Jetty and Dike Work—Aransas Pass, Tex.—Bids will be received until noon, Mar. 16, by Lieut.-Col. C. S. Riche, U. S. Engineer Office, Galveston, Tex., for jetty and dike work at Aransas Pass.

✚Post Office—Ennis, Tex.—The contract for the construction of a post office at Ennis has been awarded to VOLNEY E. TAYLOR, Huntington, W. Va., at $52,275. Noted Dec. 24 and Feb. 4.

Excavation, Etc.—Payson City, Utah—The following are the bids received for construction, involving 158,000 yd. of excavation, 7000 yd. of concrete and other items: Reynolds-Ely Construction Co., Springville, Utah, $82,625; Wasatch Grading Co., $84,365; H. G. Gilkerson, $89,762; Morrison-Knudsen Co., $89,895; Utah Construction Co., $97,911; Mendenhall, Straw & Bird Construction Co., $104,214; Jacobson-Bade Co., $106,408; Enoch Smith, $108,274; Intermountain Bridge & Construction Co., $108,315; Bates & Rogers Construction Co., $110,207; W. O. Morrison, $119,113. Noted Jan. 7.

★Excavation, Etc.—Payson City, Utah—Bids will be received by the U. S. Reclamation Service, Provo ,Utah, until 2 p.m., Mar. 10, for construction, involving about 12,800 yd. of excavation and 2100 yd. of reinforced concrete. The work is located near Payson City on the San Pedro, Los Angeles & Lake R.R. and the Tintic branch of the Denver & Rio Grande R.R.

✚Buildings, Etc.—Fort Huachuca, Ariz.—The contract for constructing and remodeling various buildings has been awarded to J. M. SPARKS, Douglas, Ariz. Noted Nov. 26 and Jan. 21.

Post Office—Everett, Wash.—Bids will be received until 3 p.m., Mar. 22, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for constructing a post office at Everett.

✚Post Office—The Dalles, Ore.—The contract for the construction of post office at The Dalles has been awarded to GEORGE ISAAKSON, 1013 Irving St., Portland, Ore., at $79,659. Noted Oct. 8 and Nov. 19.

Steel Dump Scows—Panama—Bids were received for constructing and furnishing three 1000-yd. steel dump scows, delivery at some United States point or at Colon, as follows: Milwaukee Bridge Co., Milwaukee, Wis., $66,520 each, delivered New Orleans, La.; Valk & Murdoch Co., Charleston, S. C., $6[illegible],800 each, delivered Charleston; Skinner Shipbuilding & Dry Dock Co., Baltimore, Md., three, $239,000, delivered Baltimore; Ellicott Machine Works, Baltimore, Md., $65,238 each, delivered Baltimore, $74,238 each, delivered Colon; Rock Island Bridge & Iron Works, Rock Island, Ill., $55,480 each, delivered Rock Island; William Cramp & Sons Ship & Engine Building Co., Philadelphia, Penn., $62,660 each, delivered Philadelphia; Charleston Navy Yard, estimate, $185,000, delivered Charleston, S. C. Noted Jan. 14.

★Tanks—Philippine Islands—Bids will be received by Col. S. W. Roessler, Army Bldg., 39 Whitehall St., New York, N. Y., until noon, Mar. 9, for furnishing 20 tanks, with a capacity of from 2250 to 5700 gal.

MISCELLANEOUS

✚★Concrete Platform—Boston, Mass.—The Boston Transit Commission has awarded the contract for laying 4100 sq.yd. of platform finish in the Washington Station, Dorchester Tunnel, to A. WILLIAMS & CO., 3 Cotting St., Boston, at $4962. Noted Jan. 28.

Grand Stand—Boston, Mass.—The Osborne Engineering Co., Cleveland, Ohio, is preparing plans for the construction of a grand stand, single deck, 400x400 ft., for the Boston National League Baseball Club at Commonwealth Ave. and Babcock St. The estimated cost is $450,000. James E. Gaffney, 101 Tremont St., is Pres.

Reinforcing Rods—Boston, Mass.—Bids will be received until Feb. 23 by the Transit Commission for furnishing 1700 tons of open hearth steel reinforcing rods. E. S. Davis, 15 Beacon St., is Ch. Engr.

Motor Fire Apparatus—Fall River, Mass.—Press reports state that an expenditure of $35,000 is contemplated for the purchase of motor fire apparatus.

Wharf—Fall River, Mass.—The Harbor & Land Commission contemplates the construction of a 500-ft. wharf near Ferry St. The estimated cost is $250,000. William I. Williams is Ch. Engr.

Motor Fire Apparatus—Manchester, Mass.—Chief Lane has recommended the purchase of motor fire apparatus. The estimated cost is $12,000.

Motor Fire Apparatus—Worcester, Mass.—The city has made an appropriation of $11,000 for the purchase of motor fire apparatus. George M. Wright is Mayor.

Underground Wiring—Buffalo, N. Y.—Press reports state that the Fire Commissioners have asked for $42,741 to be used for underground wiring of the police and fire systems.

✚Roofing—New York, N. Y. (Borough of Manhattan)—(Official)—The Department of Charities has awarded the contract for roofing work on the Children's Hospital and schools, Randalls Island, to NEWMAN & SIEGLER, at $10,595. Noted Jan. 14 and 28.

★Animal Building—New York, N. Y.— Borough of Richmond)—(Official)—Bids will be received until 11.30 a.m., Mar. 1, by Joseph J. O'Connell, M. D., Health Officer of the Port of New York, Quarantine Station, Staten Island, N. Y., for the construction of an animal building at the quarantine station, Rosebank, N. Y. For details see advertisement under "Contracts To Be Let."

Motor Fire Apparatus—Camden, N. J.—Press reports state that the Council has adopted the ordinance providing for a bond issue of $100,000 for the motorization of the fire department. Noted Feb. 4.

✚Coal Pockets—Perth Amboy, N. J.—E. J. Dorsey & Sons has awarded a contract to IRA R. CROUSE, at $12,000, for the construction of coal pockets having a capacity of 2800 tons.

★Pipe and Fittings—Ford City, Penn.—(Official)—Bids will be received until 7.30 p.m., Mar. 1, by D. O. Crouch, Borough Secy., for furnishing pipe and fittings. For details see advertisement under "Contracts To Be Let."

Motor Fire Apparatus—Harrisburg, Penn.—The Council has passed an ordinance authorizing the purchase of two combination chemical and hose trucks and three tractors. Estimated cost, $18,000.

✚★Skylights, Roofing and Cargo Chutes—Philadelphia, Penn.—(Official)—The following contracts have been awarded by the Department of Wharves, Docks and Ferries: For furnishing skylights at Piers 38 and 40, DAVID LUPTON'S SONS CO., $5500; for slag roofing, HARRY S. EHRET, $7000; for cargo chutes and hatchway railings, W. W. LINDSAY & CO., $4500. Noted Dec. 24 and Jan. 14.

✚Reinforced-Concrete Bins—Cumberland, Md.—The Builders Supply Co. has awarded a contract to DEVERELL, SPENCER & CO., Garret Bldg., Baltimore, for the construction of twelve reinforced-concrete storage bins, 14 ft. in. diameter and 36 ft. high. They will be used for storing sand and crushed stone.

Slearing—Norfolk, Va.—(Official) — The John L. Roper Lumber Co., Norfolk, wishes to get in touch immediately with contractors in regard to clearing a 100,000-acre tract of land

Elimination of Grade Crossings—Huntington, W. Va.—Albert Maupin, Engr., has submitted plans and specifications to the City Commissioners for constructing overhead crossings at 29th St. and at Fifth Ave. The estimated costs are $30,325 and $43,562, respectively.

Swimming Pool—Miami, Fla.—According to press reports a swimming pool, 35x140 ft. will be constructed at Ocean Beach Casino. The estimated cost is $10,000.

Reinforced-Concrete Culvert—Mobile, Ala.—(Official)—Bids will be received by the City Commissioners until noon, Feb. 23, for the construction of 1865 ft. of reinforced-concrete culvert, 4½x10x12 ft. An appropriation of $10,000 has been made for this work. Wright Smith is City Engr.

✚Drainage—Ackerman, Miss.—The Drainage Commissioners, Choctaw County Big Black Drainage District No. 1, have awarded the contract for constructing about 20 miscellaneous canals, aggregating 900,000 cu.yd. to N. C. McGINNIS & CO., Exchange Bldg., Memphis, Tenn., at $68,000.

✚Levee Work—Greenville, Miss.—The Mississippi Levee Board has awarded the contract for the enlargement of Carolina, Valewood, Shipment and Shiloh levees to BURT, BOND & McMURRAY, at 15.48c. per cu.yd. The aggregate yardage is 443,000 cu.yd.

Grandstand—Shreveport, La.—J. Y. Snyder, Shreveport, has prepared plans for the construction of a grandstand at Texas League Park for the Shreveport Baseball Association. Its seating capacity will be 3000.

Drain—Calhoun, Ky.—F. F. Shafer, U. S. Drainage Engr., Louisville, is reported to be preparing plans for drainage systems in McLean and Muhlenburg Counties. Estimated cost about $175,000.

Greenhouse—Cleveland, Ohio—Bids will be received until 1 p.m., Mar. 8, by the Clerk of the Board of Education, Rockwell St., for the construction of a greenhouse at East Technical High School, East 55th St. Plans on file at the office of the Architect of the Board of Education.

River Improvement—Tiffin, Ohio—The City Council passed an ordinance, Feb. 3, authorizing the Sandusky River improvement project. This includes the construction of 3150 lin.ft. of retaining wall, 56,900 cu.yd. of excavation and other minor items. The specifications call for three types of retaining walls to be bid upon: Type A—concrete gravity retaining wall; Type B—patented reinforced-concrete; Type C—unpatented reinforced-concrete. Noted Dec. 31.

Ditches—Upper Sandusky, Ohio—Bids will be received until Mar. 1 by the County Commissioners for the construction of 40,000 lin.ft. of ditches. Tile required, 8- to 24-in. J. Megurat is County Audr.

✚Ditch—Bloomfield, Ind.—The contract for the construction of the Beehunter Ditch has been awarded to FRED MORGAN, Vincennes, at $29,500.

Street Signs and Posts—Indianapolis, Ind.—(Official)—B. J. T. Jeup, City Engr., writes that bids will be received until 10 a.m., Feb. 24, by the Board of Public Works, for furnishing street signs and posts for 2000 intersections. Specifications on file at the office of the City Engineer.

★Cement — Springfield, Ill. — (Postponement)—(Official)—The time and date for receiving bids for cement has been changed by the State Highway Commission. Instead of 11 a.m., Feb. 17, bids will be received until 3 p.m., Feb. 23, for furnishing approximately 235,500 bbl. of cement for use in road construction. For details see advertisement under "Contracts to Be Let."

✚Dock Repairs and Equipment—Manitowoc, Wis.—The C. Reiss Coal Co., Sheboygan, has awarded the contract for rebuilding its coal docks and installing rigging to MEAD, MORRISON & CO., Boston.

✚Fireboat Station—Milwaukee, Wis.—The city has awarded the contract for the construction of a fireboat station and dock at East Water St. Bridge to S. J. WABISZEWSKI, Milwaukee. The estimated cost is $15,000. C. E. Malig is Arch.

✚Crib Work—Milwaukee, Wis.—(Correction)—(Official)—The statement under this head, issue of Feb. 11, that the contract for 1700 ft. of cribbing had been awarded to the Edward Gillen Dock, Dredge & Construction Co., was in error. The contract was awarded to the EDWARD E. GILLEN CO., Milwaukee.

Retaining Wall—Cedar Rapids, Iowa—Press reports state that the City Council will receive bids until Feb. 26 for the construction of 650 lin.ft. of river wall, 26 ft. high. L. J. Storey is City Clk.

★Drainage—Elbow Lake, Minn.—(Official)—On Mar. 5, at the County Court House, Elbow Lake, C. M. Nelson, County Audr., will sell two ditch jobs for the construction of County Ditches Nos. 18 and 21. For details see advertisement under "Contracts To Be Let."

✚Ditches—Jackson, Minn.—The following are the three lowest bids received Feb. 3 for the construction of Judicial Ditches Nos. 32, 33 and 36: Ditch No. 32, C. AXELSEN, Clear Lake, Iowa, $30,600 (awarded contract); Anton Jefson, Nevada, Iowa, $31,735; John Christensen, Lakefield, Minn., $31, 950. Ditch No. 33, RUDE & WOLD, Pomeroy, Iowa, $59,300 (awarded contract); Schoel Bros., Nevada, Iowa, $60,595; Redding & Smaage, Windon, Minn., $61,000. Ditch No. 36, JENS PETERSEN, Lakefield, Minn., $4786 (awarded contract); Nels Petersen, Okabena, Minn., $4794; A. M. Plasterer, Heron Lake, Minn., $4995. Noted Jan. 28.

Asphaltic Cement—Minneapolis, Minn.—Bids will be received by K. E. Alexander, City Pur. Agt., until Feb. 19 for 800 tons of asphaltic cement.

Portland Cement—Minneapolis, Minn.—(Official)—Ellis R. Dutton, Asst. City Engr., writes that the following bids were received, Feb. 11, for furnishing 175,000 bbl. of portland cement during 1915, f.o.b. Minneapolis: Landers, Morrison, Christenson Co., Minneapolis, $1.20 per bbl.; Atlas Portland Cement Co., Hannibal, Mo., $1.33; Hydraulic Press Brick Co., Minneapolis, $1.33; Lehigh Portland Cement Co., Mason City, Iowa, $1.33.

Canal—St. Paul, Minn.—The State Drainage Commission will ask the legislature to appropriate $60,000 to complete the Roseau River project for which $80,000 was given in 1913.

Ditch—Slayton, Minn.—Bids will be received until 10 a.m., Feb. 23, by E. V. O'Brien, County Audr., for the construction of Judicial Ditch No. 3. The specifications call for the excavation of 24,600 lin.ft. of 8-ft. ditch, and 181,600 lin.ft. of 6- to 26-in. tile branches. The estimated cost is $72,882.

Hydraulic Dradge—Kansas City, Kan.—(Official)—Bids in duplicate will be received by the Board of Directors, Kaw Valley Drainage District, until 10 a.m., Feb. 27, for furnishing a 15- and an 18-in. dredge, steam or electric power, delivered at Kansas City. T. E. Myers is Pres.

Levee Bonds—Little Rock, Ark.—St. Francis Levee District has been authorized by the state legislature to issue $465,000 in bonds for levee work.

Drainage—Bay City, Tex.—(Official)—Bids will be received until 11 a.m., Mar. 6, by the Commissioners of Drainage District No. 5, Matagorda County, for excavating 255,246 cu.yd. of open ditches. A bond issue of $47,505 has been made to cover the estimated cost of the work. E. N. Gustafson is Engr.

Swimming Pool—Dallas, Tex.—George E. Kessler, St. Louis, Mo., has prepared tentative plans under the direction of the Park Board for the construction of a swimming pool and bathhouse at Lake Cliff Park. Estimated costs, $40,000 and $15,000, respectively.

Barn—El Paso, Tex.—The El Paso Union Stockyards plans to construct a 75x200-ft. hay barn, also an office building of reinforced-concrete. The estimated cost is $16,000.

Drainage—North Yakima, Wash.—All bids for the construction of a drainage system in Drainage District No. 4 have been rejected. The County Engineer, Yakima County, has been directed to prepare two sets of specifications: one for cement tiling, the other for vitrified clay. Noted Dec. 17.

✚Retaining Wall—Seattle, Wash.—The School Board has awarded the contract for constructing a concrete retaining wall at Central School, Sixth Ave. and Marion St., to FINNE & GJARDE, Northern Bank Bldg., at $20,000.

Harbor Improvements—Bandon, Ore.—Press reports state that the City contemplates extensive port improvements in the Coquille River. The government has appropriated $70,000 and the city will spend an additional $250,000. A bond issue for this amount will soon be made.

Wharf—Hueneme, Calif.—The Farmer's Warehouse Co. has authorized J. Schulz, Constr. Engr., Wright & Callender Bldg., Los Angeles, to prepare plans and specifications for the construction of a reinforced-concrete wharf.

✚Dredging—Los Angeles, Calif.—The Labor Commission has awarded a contract to the STANDARD AMERICAN DREDGING CO., at $39,648, for dredging 210,000 cu.yd. of material from the channel between Municipal Dock No. 1 and the docks of the Outer Harbor Wharf & Dock Co.

Reclamation—Nicolaus, Calif.—At a recent special election the citizens of Reclamation District 1001 voted favorably on a bond issue of $500,000, the proceeds to be used in reclamation work.

Dredging—San Francisco, Calif.—The Southern Pacific Co. contemplates dredging Channel Creek to a uniform width of 300 ft. and a depth of 30 ft., at low tide. This work, with the construction of bulkheads and bridges, will cost about $2,500,000. William Hood is Ch. Engr.

✚Grand Stands—San Francisco, Calif.—The Panama-Pacific International Exposition Co. has awarded a contract for the construction of race track grand stands to McSHEELY BROS., at $30,292.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Auburn, Maine—Plans have been prepared by Harry S. Coombs, Lewiston, for the construction of the Webster Grammar School. Estimated cost $100,000.

Springfield, Mass.—Plans have been prepared for the construction of a five-story apartment house on Maple St. for Russell C. Parsons. Estimated cost, $45,000.

✚Bridgeport, Conn.—(Official)—The Board of Contract and Supply, Room 28, City Hall, has awarded a contract for the construction of an almshouse to the OSCAWANA BUILDING CO., 101 Park Ave., New York, N. Y., at $109,670. Noted Jan. 7.

Beacon, N. Y.—Bids will be received about Mar. 7, for the construction of a two-story high school on Fishkill Ave. Estimated cost, $60,000. Homer H. Stuart is Pres. Bd. of Education. Noted Jan. 14.

New York, N. Y.—(Borough of Bronx)—E. J. Byrne, 148th St. and Third Ave., is preparing plans for the construction of a five-story apartment house at 156th St. and Elson Ave. Estimated cost, $50,000.

✚New York, N. Y.—(Borough of Bronx)—(Official)—The contract for the construction of Public School No. 48, Spofford Ave. and Coster St., has been awarded to L. J. RICE, 405 Lexington Ave., New York, at $250,000. Noted Feb. 4.

New York, N. Y.—(Borough of Manhattan)—Delano & Aldrick, Arch., is preparing plans for the construction of a four-story building at 98th St. and Fifth Ave., for St. Bernard's School, Inc. Estimated cost, $75,000. Jesse E. Ward is Pres.

New York, N. Y.—(Borough of Manhattan) — The Beth Israel Hospital Association plans to construct a 12-story hospital at 16 Livingston Pl. Joseph N. Cohen is Pres. Estimated cost, $1,000,000.

✚New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for the foundation work for the nine-story apartment house at 130 East 76th St., for the Jaytison Construction Co., has been awarded to the UNDERPINNING & FOUNDATION CO. 290 Broadway.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Warren & Wetmore, Arch., 16 East 47th St. for the construction of a 25-story addition to the Hotel McAlpin, 48 West 34th St. Estimated cost, $500,000.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by George Mort Pollard, Arch., 127 Madison Ave.

for the construction of a nine-story studio on 67th St., Central Park West for the Hotel des Artistes, Inc. Estimated cost $800,000. Penrhyn Stanlaus is Pres.

New York, N. Y.—(Borough of Queens)—Bids will be received until 3 p.m., Feb. 23, for the construction of a four-story school at Yarmouth and Shipley St. Estimated cost, $160,000. C. B. J. Snyder, 59th St. and Park Ave. is Supt. of School Bldgs.

+Camden, N. J.—The contract for the construction of an eight-story reinforced-concrete office building for the Victor Talking Machine Co., has been awarded to the GEORGE A. FULLER CO., Bellevue-Stratford Hotel, Philadelphia, Penn. Noted Jan. 7, under Industrial Works.

Camden, N. J.—The Atlantic City R.R. Co. plans to construct a station at Kaighn's Point to replace the one recently destroyed by fire. Estimated cost, $1,000,000.

Newark, N. J.—Henry Baechlin, Arch., is preparing plans for the construction of a theater on North Seventh near Orange St., for Edward W. MacDonough. Estimated cost, $100,000.

Newark, N. J.—E. Y. Guilbert, Arch., 665 Broad St., is preparing plans for the construction of an addition to the Oliver School. Estimated cost, $140,000.

Nutley, N. J.—Plans are being prepared by Charles G. Jones, Arch., 200 Broadway, New York, for the construction of a school. Estimated cost, $40,000.

★Trenton, N. J.—(Official)—Bids will be received at the office of the Governor until noon, Mar. 2, for the construction of an extension to the House of Detention for Convict and Criminal Insane at the State Hospital. E. I. Edwards is Secy. State House Comn.

Wildwood, N. J.—Plans are being prepared by Clyde S. Adams, Arch., Philadelphia, Penn., for the construction of a two-story high school. Estimated cost, $60,000.

Philadelphia, Penn.—Plans are being prepared for the construction of a building at 1522 Market St. for John Thommen. Estimated cost, $50,000.

Philadelphia, Penn.—Bids will be received about Mar. 1 for the construction of a four-story, 32x110-ft. building at 1417 South 22nd St. for the Mercy Hospital School for Nurses. Estimated cost, $50,000. E. S. Lemmon is Arch.

Sharon, Penn.—Plans are being prepared for the construction of a building for the Buhl Hospital. Estimated cost, $100,000. M. M. Cumming is Supt.

Baltimore, Md.—The Board of Directors of the Hahnemann General Hospital contemplates the construction of a building on North Mount St. Estimated cost, $250,000.

Baltimore, Md.—Plans are being prepared by E. H. Glidden, Arch., 1008 Garrett Bldg., for the construction of a four-story apartment house at 31st and Calvert St. for the Calvert Construction Co. Estimated cost, $90,000.

Washington, D. C.—Plans are being prepared for the construction of a three-story, 40x100-ft. building to be used as a chemical laboratory for the Catholic University of America. Estimated cost, $135,000.

Norfolk, Va.—Preliminary plans are being prepared for the construction of the Boys' High School to cost $180,000. Richard A. Dobie is Dir. Supt.

+West Palm Beach, Fla.—The contract for the construction of a courthouse for the Palm Beach County Commissioners has been awarded to E. P. MAULE, at $122,000. Talley & Summers is Arch. Noted Dec. 10, 1914.

Cincinnati, Ohio—V. Duttenhofer, Jr., plans to construct a 10-story office building at Sixth and Sycamore St.

+Cleveland, Ohio—JOHN GILL & SON, at $1,250,000, has been awarded the contract for the construction of the 15-story building for the Guardian Savings & Trust Co. Noted Oct. 22.

Cleveland, Ohio—The Newburg Masonic Temple Co. has been incorporated, and will build a temple to cost about $75,000. Sites for the purpose are under consideration. James H. Rose is one of the incorporators.

Columbus, Ohio—Plans are being prepared by Leon H. Stanhope, Arch., 108 South La Salle St., Chicago, Ill., for the construction of a seven-story building at 62 East Gay St. for the Peters Realty Co. The estimated cost is $60,000. Charles M. Peters is Pres. and George A. Peters is Secy.

Columbus, Ohio—Z. L. White Co., dry goods merchant, will build an eight-story office building at 108-110 North High St. Construction will begin in the spring.

+Findlay, Ohio—The contract for the construction of two schools at Findlay has been awarded to the STRUCTURAL CONCRETE CO., Dayton, at $196,223. Noted Aug. 27.

McCutchenville, Ohio—Bonds have been sold for the construction of a high school to cost $40,000. Noted Jan. 7.

Massillon, Ohio—The Florence Crittendon League of Ohio plans to build a hospital at Massillon. The estimated cost is $50,000. A. H. Mavis, Cleveland, is Secy. of the Florence Crittendon Home.

North Baltimore, Ohio—Manfred F. Stophlet, Arch., Toledo, is preparing plans for the construction of a two-story brick and concrete school. The estimated cost is $55,000.

Toledo, Ohio—Bonds amounting to $900,000 have been sold for the purchasing of school sites and construction of buildings for the Board of Education. Noted Oct. 8 and Jan. 21.

Bloomington, Ind.—Plans have been prepared by E. C. Deoppers & Co., Arch., for rebuilding the three-story Bible Chair Hall, at Third and Indiana Ave., recently destroyed by fire. The estimated cost is $60,000. B. F. Nesbitt and Rev. E. F. Daugherty are Dirs.

Kendallville, Ind.—Bids will be received about Mar. 15 by F. S. Weber, Secy. Bd. of Education, for the construction of a brick high school. The estimated cost is $40,000.

Detroit, Mich.—Smith, Hinchman & Grylls, Arch., is preparing plans for a 12-story hotel to be located at Lafayette Blvd. and Wayne St. for the Lafayette Land Co. Fred Postal is Pres. of the company.

Hancock, Mich.—The Quincy Lodge of F. & A. M. plans the construction of a Masonic temple. The estimated cost is $50,000.

Chicago, Ill.—Plans have been prepared by Holabird & Roche, Arch., 104 South Michigan Ave., for the construction of a 15-story building at State and Adams St. for Buck & Rayner, retail druggists. The estimated cost is $750,000.

East St. Louis, Ill.—Bids will be received until Mar. 15 by Ruester & Rubach, Arch., 414 Missouri Ave., for the construction of a two-story, 136x282-ft. high school. Noted Oct. 8 and Nov. 26.

Ottawa, Ill.—Plans are being prepared by William B. Ittner, 408 Board of Education Bldg., St. Louis, Mo., for the construction of a high school. The estimated cost is $200,000. Noted Feb. 4.

Madison, Wis.—Bids are being received by Claude & Starck, Arch., for the construction of the three-story, 79x105-ft. Lincoln school on Gorham St. The estimated cost is $60,000. C. H. Tenny is Chn. of Bd. of Education. Noted Nov. 19.

Milwaukee, Wis.—Kenwood Lodge, F. & A. M., will build a three-story, 55x110-ft. lodge building at Hackett Ave. and Park Pl. It will be of reinforced-concrete, brick and terra cotta. The estimated cost is $50,000.

Milwaukee, Wis.—Bids will be received until Feb. 25 by Leenhouts & Guthrie, Arch., 424 Jefferson St., for the construction of a four-story, 56x117-ft. apartment house at Jefferson and Biddle St., for Mrs. Olivia Drew. The estimated cost is $75,000.

+Racine, Wis.—Contracts have been awarded by Guilbert & Funston and C. D. McTine, Archs., Rock Island, Ill., for the construction of a Y. M. C. A. building to A. C. KAPPEL, general contract, $81,200; THOMAS HEATING CO., heating and ventilating, $7797. Noted Sept. 3, Oct. 8 and Jan. 28.

Glenwood, Minn.—Grant, Stevens, Douglas and Pope Counties will construct a $60,000 sanatorium at Glenwood.

Granite Falls, Minn.—Yellow Medicine, Lac qui Parle, Chippewa and Renville Counties plan to construct a tuberculosis sanatorium. The estimated cost is $60,000.

Wichita, Kan.—L. M. Miller, Wichita, and E. J. Silvers, Waco, Tex., contemplate building a 50x138-ft. moving picture theater. It will cost about $75,000.

Kansas City, Mo.—(Official)—Bids will be received about Mar. 15 by Keene & Simpson, Arch., for the construction of a building for the Hillcrest Golf & Country Club. The estimated cost is $50,000. Noted Feb. 4.

St. Louis, Mo.—The Development Committee of the St. Louis Jovian League of Electrical Interest plans the construction of a 10-story electrical exchange building near Tenth and St. Charles St. The estimated cost is $500,000. F. D. Beardslee is interested.

+Austin, Tex.—The contract for the construction of a theater for E. Nalle has been awarded to J. F. JOHNSON, Denton. The estimated cost is $100,000. Noted July 30 and Nov. 26.

+Okanogan, Wash.—The Commissioners of Okanogan County has awarded the contract to E. D. DAVENPORT, Omak, for the construction of a county court house. The estimated cost is $50,000. Noted Dec. 10 and 31.

+Tacoma, Wash.—The contract has been awarded to CORNELL BROS., at $100,000, for the construction of the four-story building for the Elks' Hall Association. C. F. Champney, Seattle, is Arch. Noted July 30, Sept. 3, 10 and 17.

Walla Walla, Wash.—St. Mary's Hospital, which was recently destroyed by fire, will be rebuilt at once. The new building will be fireproof. The estimated cost is $250,000.

Pendleton, Ore.—It is reported that the State Legislature, Salem, has appropriated $100,000 for the construction and equipment of a new wing of the State Hospital at Pendleton. The building will be of reinforced-concrete, three stories.

Auburn, Calif.—Plans have been prepared by A. D. Fellows, Arch., for the construction of a Masonic Temple. The estimated cost is $40,000. C. W. Brundage is Secy.

+Calexico, Calif.—ROBERTSON & DAVIS, El Centro, has been awarded the contract for the construction of a high school at $45,751. Allison & Allison, Hibernian Bldg., Los Angeles, is Arch.

Fresno, Calif.—(Official)—The following bids were received Feb. 1 by W. F. McClure, State Engr., Sacramento, for the construction of the main building, gymnasium and boiler house at the Fresno State Normal School: Winget Construction Co., $248,641; F. O. Engstrum Co., $258,672; W. E. Kier Construction Co., $263,600; F. Rolandi, $274,300; Howard S. Williams, $275,913; Alfred Kohn and Foster-Vogt Co., $279,590; Frank Rehorn, $280,000; Sound Construction & Engineering Co., $281,605; Larsen-Sampson Co., $283,000; Vant Sant-Houghton Co., $284,990; L. G. Bergren & Son, $286,472; R. W. Moller, $287,950; John J. Leonard, $288,244; Caldwell & Son, $288,810; Lindgren Co., $292,855; Somers-Lund Co., $293,500; McLeran & Peterson, $294,799; John Mulder, $298,000; Alta Planing Mill Co., $299,844; Lewis A. Hicks Co., $302,000; Lange & Bergstrom, $309,763; C. L. Wold Co., $309,955; Louis Cereghino & Son, $315,153; Grant Fee, $331,000; Merchants Realty & Investment Co., $428,963. Noted Jan. 28.

Redondo Beach, Calif.—Plans are being prepared by Allison & Allison, Arch., Hibernian Bldg., Los Angeles, for the construction of a high school for the Redondo High School District. The estimated cost is $135,000.

+Stockton, Calif.—The contract for the construction of a building for St. Joseph's Home has been awarded to JAMES MULCAHY, at $100,000.

Toronto, Ont.—(Official)—William D. McPherson, Pres. of Masonic Temple Corporation, Ltd., advises us that bids have been received and contracts will soon be awarded for the construction of a $400,000 Masonic Temple on Spadina St. Noted Feb. 11.

+Vancouver, B. C.—The Canadian Bank of Commerce has awarded the contract for the construction of its bank and office building at Main and Pender St., to BAYNES & HORIE, 836 Howe St., at about $100,000. The building will be of reinforced-concrete, three stories.

Contracts to Be Let

Bids received until Mar. 3, 1915.

Repairs to Mullica River Bridge

Mt. Holly, N. J.

Sealed proposals for repairs to bridge at Chestnut Neck, New Jersey, will be received by the Boards of Chosen Freeholders of Atlantic and Burlington counties on Wednesday, March 3rd, 1915, at 12:00 noon, at the Burlington county court house in Mount Holly, New Jersey, and opened immediately thereafter.

All bids must be accompanied by a certified check in a sum equal to ten per cent. of the total amount of the bid, payable to the order of the county collector of either Atlantic or Burlington county, to insure that a bidder will enter into a contract, if so ordered by the counties, as a result of the bidding.

Plans and specifications are on file in the office of the Atlantic County Board, Real Estate & Law Building, Atlantic City, New Jersey, and in the office of the Burlington County Board, No. 11 Main street, Mount Holly, New Jersey, and may be obtained from A. H. Nelson, county engineer for Atlantic county, No. 636 Guarantee Trust Building, Atlantic City, New Jersey, or from James Logan, county engineer for Burlington county, New Jersey, Mount Holly, New Jersey, by depositing $5.00 as a guarantee for the return of same. Such deposit will be refunded provided the plans are returned in good condition by noon March 4th, 1915, otherwise such deposit will be forfeited.

The committees reserve the right to reject any or all bids.

The successful bidder will be required to furnish a bond approved by the solicitors of the Boards of Chosen Freeholders of the counties of Atlantic and Burlington, in an amount equal to twice the contract price, for the faithful performance of the work, which bond will remain in force and effect for a period of one year and will be held to guarantee that the completed work will remain safe and sound from defects of workmanship or material for a period of one year. Should the contractor fail or neglect to promptly remedy any defects that may appear, after notice has been given him of any such defect, the counties reserve the right to do such work in any way that may seem to them best and to charge the contractor with any and all costs of same.

Bidders must acquaint themselves with the plans and specifications for the work and, by personal examination, satisfy themselves of the nature, character and location of the proposed work, that no misunderstanding may arise in regard to the character and quantity of the work to be performed by the contractor.

The blank form of proposal attached to these specifications must be used in making out the bid. The prices must be written as well as stated in figures in the proposal, and any proposal not in accordance with the instructions, or not on the blank furnished, will be rejected. If any discrepancies occur between the written and figured prices, those most favorable to the counties will be taken as the intention of the bidder.

Proposals will be entertained only from parties who have at their command the necessary capital, plant and experience for properly doing the work. Each bidder shall file with his bid a sworn statement setting forth his experience and the location of some work of similar character and magnitude that he has built elsewhere, as an evidence of his ability.

The bidder to whom the contract may be awarded will be required to execute the contract with surety, within ten (10) days from the date of service of notice to that effect; and in case of failure or neglect to do so, he will be considered as having abandoned it.

Each bid must state the full name and address of the maker and each bid must be presented by the maker or by a properly authorized representative at the hour provided for the receiving and opening of the bids. Mailed bids will not be accepted.

Envelopes containing proposals must have endorsed thereon: "Proposals for repairs to Mullica River Bridge."

By order of the Boards of Chosen Freeholders.

A. H. NELSON,
Atlantic County Engineer.
JAMES LOGAN,
Burlington County Engineer.

Bids received until Feb. 24, 1915.

Intercepting Sewers

OFFICIAL NOTICE NO. 9.

PUBLISHED BY AUTHORITY OF THE SEWERAGE COMMISSION OF THE CITY OF MILWAUKEE.

Milwaukee, Wis., January 15, 1915.

Sealed proposals for constructing intercepting sewers and connections on both sides of the Milwaukee River in the City of Milwaukee will be received by the Sewerage Commission at its office in the City Hall until 2:00 P.M. on the 24th day of February, A.D. 1915, at which place and time the proposals will be publicly opened and read.

The work to be done is divided into two separate contracts numbered 9 and 10.

Number 9 embraces the construction of an intercepting sewer and branches on the east side of Milwaukee River from a point below the Dam to the intersection of Broadway and Detroit Streets, and requires the construction of approximately:

7927 ft. brick and concrete sewer in open cut from 30″ to 51″ diameter.
3992 ft. brick and concrete sewer in tunnel from 30″ to 51″ diameter.
3844 feet terra cotta pipe sewer from 10″ to 24″ diameter.
1762 feet of manholes and pile and timber foundations.

Number 10 embraces the construction of an intercepting sewer and branches on the west side of Milwaukee River from the Holton Street viaduct to the intersection of West Water and Fowler Streets and requires the construction of approximately:

8480 ft. brick and concrete sewer in open cut from 30″ to 48″ diameter.
2340 feet terra cotta pipe sewer in open cut from 10″ to 18″ diameter.
1105 feet of manholes and pile and timber foundations.

All as shown upon the plans and described in the specifications now on file in the office of the Sewerage Commission.

The time allowed for completing each contract shall be two hundred and fifty (250) working days. (Working days meaning such as are particularly described in the contract.)

The liquidated damages for not completing the work within the time agreed shall, for each day's delay, be an amount equal to one-half of one percentum of the aggregate cost of the work embraced in the contract.

Each proposal must be accompanied by a cash deposit of, or, in lieu thereof, by a certified check drawn upon a national or state bank doing business in the City of Milwaukee, to the order of the "Sewerage Commission of the City of Milwaukee," for the following sums; failing in which the bid will be rejected:

For proposals Number 9, $38,500.00.
For proposal Number 10, $25,000.00.

Specifications and blank forms of proposals can be obtained, and details plans examined, at the office of the Sewerage Commission in the City Hall.

The prices must be written in the proposal and also stated in figures. In case of variation the written prices will prevail.

All cash deposits or certified checks deposited by bidders to whom the contract is not awarded will be returned upon application to the Secretary of the Commission after the contract has been awarded or after the rejection of all bids. The cash deposit or certified check which may be deposited by the successful bidder will be returned to him as soon as the contract is properly executed and approved by the City Attorney and Sewerage Commission.

Full sets of detail plans will be sent to any contractor desiring to bid upon receipt of ten dollars ($10.00).

The Sewerage Commission of the City of Milwaukee reserves the right to reject any and all bids submitted.

J. H. FOWLES, Secretary.

Countersigned:
LOUIS M. KOTECKI, Comptroller.

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U. S. ENGINEER OFFICE, 405 Customhouse, Cincinnati, O., January 30, 1915.—Sealed proposals for constructing and delivering two steel Fuel Flats Nos. 18 and 19, and one steel Barge No. 15, will be received at this office until 2 p.m., March 2, 1915, and then publicly opened. Information on application. H. JERVEY, Lt. Col., Engrs.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

RAILWAYS

Virginia—Radford-Willis Southern Ry.—This company has been organized to construct the proposed railway from Radford to Willis, Va., about 25 miles. J. L. Vaughan is Pres., E. F. Strong, Vice-Pres. and W. L. Castle, Secy.

Georgia—Atlantic, Waycross & Northern R. R.—Preliminary arrangements are being made by this company to start work soon on the construction of its proposed line from Kingsland to Folkston, about 22 miles. L. Johnson, St. Marys, Ga., is Pres. and Gen. Mgr.

Tennessee—Nashville, Chattanooga & St. Louis Ry.—According to press reports, this company contemplates the construction of a two-mile extension from Shelbyville to Sylvan City, Tenn. Hunter McDonald, Nashville, Tenn., is Ch. Engr.

Kansas—St. Louis & San Francisco R.R.—According to press reports this company contemplates the construction of a branch line from a point south of Baxter Springs, Kan., to Miami, Okla., about 15 miles. F. G. Jonah, St. Louis, Mo., is Ch. Engr.

Arkansas—Missouri & North Arkansas R.R.—Plans are being considered by this company for the construction of a four-mile spur line from Cotton Plant, Ark., to the timber land recently purchased by Trice & Co. E. M. Wise, Harrison, Ark., is Gen. Mgr.

Arkansas—Arkansas Eastern R. R.—This company plans to extend its line from Turrell to Earle, Ark., about seven miles. F. E. Gary, Turrell, is Pres.

Texas—San Benito & Rio Grande Valley R.R.—This company contemplates the extension of its line from San Benito, Tex., to the coal fields in Zapata County. E. E. McLellan, San Benito, is Gen. Supt. and Ch. Engr.

Texas—Panhandle & New Mexico Ry.—This company is being organized for the purpose of constructing a railway from Lubbock, Tex., to Roswell, N. M., about 200 miles. Alpheus Judd, Lubbock, and J. S. Griscom, Sweetwater, Tex., are interested.

Oklahoma—Alva, Buffalo & Colorado R.R.—This company has been incorporated to construct a railway from Buffalo to Rosston, Okla., about 20 miles. The incorporators include J. H. Moran, L. A. Walton, George Stafford and L. L. Walton, all of Alva, Okla.

Oklahoma—St. Louis & San Francisco Ry.—See item under Kansas.

New Mexico—Panhandle & New Mexico Ry.—See item under Texas.

✚Idaho—Oregon Short Line R.R.—This company has awarded a contract to the UTAH CONSTRUCTION CO., Ogden, Utah, for the construction of a 600-ft. tunnel on its Yellowstone line near Ashton, Idaho.

✚California—Chowchilla-Pacific R.R.—A contract has been awarded by this company to CHADWICK & SYKES, INC., San Francisco, for the construction of a three-mile extension to its line to the new town of Robertson, Calif.

ELECTRIC RAILWAYS

Greenfield, Mass.—Plans are being considered by the Connecticut Valley St. Ry. Co. for the extension of its line on Silver St. Charles W. Clapp, Greenfield, is Ch. Engr.

Leominster, Mass.—The Worcester Consolidated St. Ry. Co. has applied to the City Council for a franchise to construct an electric railway in Leominster. H. C. Page, Worcester, is Gen. Mgr.

✚Stratford, Conn.—The Wilkenda Land Co., 214 Newfield Bldg., Bridgeport, has awarded the contract to FRED T. LEY CO., INC., Springfield, Mass., for the construction of the electric railway from Stratford to Lordship Manor, about three miles. William G. Smith, 51 Leavenworth St., Waterbury, is Engr.

Buffalo, N. Y.—Plans are being prepared by the International Ry. Co. for double-tracking its West Utica St. line on Ferry St. J. C. Sheldon, Buffalo, is Pur. Agt.

Geneva, N. Y.—The Geneva & Auburn Ry. Co. contemplates double-tracking its line on Exchange St. from Seneca to Lewis St. George Everill, Waterloo, N. Y., is Ch. Engr.

Atlanta, Ga.—The Georgia Ry. & Power Co. contemplates extending its line to the site of Emory University. W. H. Smaw is Pur. Agt.

Henderson, Ky.—The Henderson Traction Co. has applied to the City Council for a franchise to construct an extension to its line from Henderson to Owensboro. William A. Carson, Evansville, Ind., is Gen. Mgr. and Pur. Agt.

Kiel, Wis.—The Sheboygan Ry. & Electric Co., Sheboygan, will build an extension to Elkhart Lake, Kiel, New Holstein and Chilton. Edward Hammett is Gen. Mgr.

Little Falls, Minn.—The Minneapolis & Central Minnesota Ry. Co. is preparing plans for the construction of an electric railway from Little Falls to Pierz. E. G. Potter, Andrews Bldg., Minneapolis, is Pres.

Coffeyville, Kan.—The Union Traction Co. is considering plans for the extension of its line from Coffeyvile, Kan., to Pryor, Okla. H. A. Siggins, Coffeyville, is Secy. and Pur. Agt.

Kansas City, Mo.—The City Council has granted a franchise to the Metropolitan St. Ry. Co. to double-track its line on 67th St. from Swope Parkway to Elmwood Ave. A. E. Harvey, Kansas City, is Ch. Engr.

St. Louis, Mo.—The United Rys. of St. Louis contemplates the extension of its Fourth St. line through the Lafayette Park District. Robert McCulloch, St. Louis, is Pres., Gen. Mgr. and Pur. Agt.

Cleburne, Tex.—The Southwestern Traction Co., Temple, Tex., contemplates an extension between Cleburne and Ballinger. W. G. Haag is Gen. Mgr.

Marshall, Tex.—An application has been made by the Texas-Louisiana Traction Co. to build a street railway in Marshall.

Port Arthur, Tex.—The Pier Ry. Co. will soon begin construction on its line from Proctor St. and Austin Ave. to the end of the causeway on the pleasure piers.

Stayton, Ore.—The West Stayton Power & Ry. Co. is considering plans for its proposed railway between Salem and East Stayton. E. O. Stafter is interested.

San Francisco, Calif.—M. M. O'Shaughnessy, City Engr., is preparing plans for the extension of the municipal electric railway through Golden Gate Park. Estimated cost, $200,000.

LIGHT, HEAT AND POWER

Holyoke, Mass.—It is reported that the Municipal Gas and Electric Department will spend about $50,000 for new gas mains, to be laid by city forces.

✚New Haven, Conn.—The Winchester Repeating Arms Co. has awarded the contract for the construction of an addition to its gas plant on Newhall St., to the WESTINGHOUSE-CHURCH-KERR CO., New York. The work includes the building of a 150-ft. stack. The approximate cost is $9000. Noted Feb. 4.

✚New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract for electrical equipment in new Public School 50, Driggs Ave. and South Third St., Borough of Brooklyn, has been awarded to the JANDOUS ELECTRIC EQUIPMENT CO., 109 West 31st St., New York, at $10,253. List of bidders noted Feb. 11.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were opened Feb. 18 by the State Hospital Commission for heating, plumbing and drainage, and electrical work in new buildings at the Manhattan State Hospital, Ward's Island, (A) building for 100 male patients, (B) building for 150 male patients, (C) building for 200 patients; Heating, (A) Walker & Chambers, 222 East 41st St., New York, $11,210; Gaylord Engineering & Construction Co., Binghamton, $11,940; Tewan, Mahaney & Munro, Inc., New York, $12,334; (B) Walker & Chambers, $11,425; Gillis & Geoghegan, New York, $11,590; Philip & Paul, 166 East 120th St., New York, $11,753; (C) Walker & Chambers, $16,200; Child & Scott, New York, $17,414; Philp & Paul, $17,842. Plumbing and drainage, (A) James Harley Plumbing Co., Brooklyn, $10,045; James Harley, 16 Court St., Brooklyn, $10,471; P. F. Kenny Co., New York, $11,178; (B) James Harley Plumbing Co., $11,879; (C) $10,074; James Harley, (B) $12,242; (C) $10,996; P. F. Kenny Co., (B) $13,134; (C) $11,313. Electrical work, Lewis H. Woods, 2355 Jerome Ave., New York, (A) $4693; (B) $5043; (C) $5887; T. Frederick Jackson, Inc.., 94 John St., New York, (A) $4629; (B) $5076; (C) $5843; Jandous Electric Equipment Co., 109 West 31st St., New York, (A) $4970; (B) $5296; (C) $5825.

✚New York, N. Y.—(Borough of Queens)—(Official)—The contract for electrical equipment in new Public School 91, Central Ave., Glendale, Borough of Queens, has been awarded to the JANDOUS ELECTRIC EQUIPMENT CO., 109 West 31st St., New York, at $9268. List of bidders noted Feb. 11.

Pleasant Valley, N. Y.—At the request of residents of Pleasant Valley, the Central Hudson Gas & Electric Co., Poughkeepsie, has prepared estimates of the cost of supplying the village with electricity. The cost of the transmission line and equipment for 40 street lamps is estimated at $10,000. F. M. Stark, Poughkeepsie, is Pur. Agt. of the Central Hudson Gas & Electric Co.

Rome, N. Y.—Bids will be received until Mar. 1 by Charles R. Mahady, Pres. Bd. of Mgrs., New York State Custodial Asylum, Rome, for heating, plumbing and electrical work for a new dormitory building. Lewis F. Pilcher, Capitol, Albany, is State Arch.

Keyport, N. J.—The Board of Public Utility Commissioners has granted the Standard Gas Co. permission to issue bonds for $22,193 to be used for extensions and improvements.

Parkersburg, W. Va.—Press reports state that the Parkersburg, Marietta & Interurban R.R. Co. will begin work this spring on a $500,000 generating station in Parkersburg to replace the present power house. Sanderson & Porter, 52 William St., New York, N. Y., is Consult. Engr.

Jackson, Miss.—A special election will be held Mar. 13 to vote on the question of issuing $160,000 in bonds to be used for the construction of a municipal electric-light and power plant. L. A. Scott is City Clk. Noted Oct. 8 and 22.

Vinton, La.—See item under "Water Supply-Irrigation."

Cleveland, Tenn.—It is reported that S. E. De Freese, Chattanooga, Tenn., will establish a gas plant at Cleveland, estimated to cost $65,000.

Cleveland, Ohio—The Cleveland Ry. Co., Leader-News Bldg., is having plans prepared for a two-story, 60x120-ft. power house, to be located at Harvard Ave. and East 49th St., Cleveland.

Covington, Ind.—(Official)—Bids will be received until 7:30 p.m., Mar. 15, by Charles A. Baldwin, City Clk., for the installation of an engine unit, a generator, exciter and switchboard, and street lighting apparatus. The estimated cost is $5500.

Mitchell, Ind.—It is reported that the city is considering the construction of a new municipal electric-light plant to replace the present one. H. A. Miller is Supt. of the plant.

Saginaw, Mich.—At a special election held Feb. 17 the citizens defeated the question of issuing bonds for the construction of a municipal electric-light plant estimated to cost $500,000. The city will enter into a five-year contract with the Saginaw Power Co. to furnish light. Noted Aug. 13 and Oct. 15, 1914; Jan. 7 and 21, 1915.

Westby, Wis.—The Light Commission, according to press reports, is considering changing the system of the municipal electric-light plant from direct- to alternating-current. L. D. Ingham is Supt.

Chapman, Kan.—It is reported that the City Council has decided to hold an election soon for the purpose of voting on the question of issuing bonds for the construction of a municipal electric-light plant.

Portis, Kan.—The citizens of Portis have voted to build a transmission line from the power plant of John Abrahams, Downs, Kan., to supply the town with light and power. The cost of the line will be about $4000, and will be provided for by a bond issue.

Lyons, Neb.—(Official)—Bids will be received until noon, Mar. 16, by M. L. Shumway, Village Clk., for the construction of a power plant, pole line and lighting system for the pumping plant and for electric lights for the village. Albert C. Arend, Brandeis Bldg., Omaha, is Consult Engr.

+North Bend, Neb.—The contract for the construction of an electric-lighting system has been awarded to HERMAN RENNAU & CO., North Bend, at $18,995. Energy for operating the plant will be obtained from Fremont. Noted Nov. 26.

Deepwater, Mo.—It is reported that work will shortly be begun on a municipal electric-light plant for the town. J. P. Davis, Windsor, Mo., is Engr.-in-Charge.

Hale, Mo.—The town is preparing to install a municipal electric-light plant. The equipment will include one 50-hp. and one 40-hp. engine, a 35-kw. and a 25-kw. generator, one three-panel switchboard and about 50 kw. in transformers. Contracts have not yet been awarded. W. B. Rollins & Co., Midland Bldg., Kansas City, Mo., is Engr.-in-Charge.

Kansas City, Mo.—It is reported that the Directors of St. Joseph's Hospital have engaged Henrici, Kent & Lowry, Reserve Bank Bldg., Kansas City, to prepare plans for the construction of a power plant for the hospital.

Fort Smith, Ark.—The Board of Municipal Commissioners is considering the establishment of a municipal electric-light and power plant, to cost about $200,000. M. H. Reed is City Engr.

Ellensburg, Wash.—It is reported that the City Council contemplates improving the municipal electric-light plant at an estimated cost of $65,000. The installation of steam equipment to develop 1300-hp. is being considered. E. L. Butler is Mgr. and Supt. of the plant.

Montesano, Wash.—The Gas Service Corporation of America plans, according to press reports, to construct four gas plants in Chehalis County, at a total cost of about $250,000. The first of these plants will be built in Montesano, costing $40,000.

+Montesano, Wash.—The Northwest Electric & Water Works has awarded the contract for the equipment of its new power plant, now under construction, to the LAMB MACHINE CO., Hoquiam, Wash. The contract includes General Electric generators, switchboards, motors, etc. Noted Dec. 24.

+Ridgefield, Wash.—A contract for the construction of a transmission line to furnish energy to the city has been awarded to NePAGE, McKENNA & CO., Seattle. The contract includes poles, overhead wires, street lamps, transformers, motors, etc. Noted Dec. 31.

Richmond, Calif.—The Standard Oil Co. is preparing to build a brick boiler house at its Richmond refinery. The estimated cost is $6000. Twenty 200-hp. boilers will be installed. E. J. Gerrard, Asst. Engr., will be in charge of the work.

Owen Sound, Ont.—It is reported that the McQuay Tanning Co. will spend about $20,000 in enlarging its boiler house and power plant, and adding new equipment.

BRIDGES

Newton, Mass.—It is reported that the Metropolitan Park Commission contemplates the construction of a bridge across the Charles River from Newton to Weston. The estimated cost is $50,000. John R. Rablin, 15 Beacon St., Boston, is Ch. Engr. of the Comn.

Williamstown, Mass.—It is reported that the town has voted an appropriation for the construction of three steel or concrete bridges.

+Pittsburgh, Penn.—(Official)—The Dravo Contracting Co., Pittsburgh, has awarded a sub-contract for the pile foundation of the Sylvan Ave. Bridge to the McARTHUR CONCRETE PILE & FOUNDATION CO., 11 Pine St., New York, N. Y. Noted Sept. 24 and Oct. 8.

Reading, Penn.—It is reported that the following bridges will be built in Berks County this year: Leaf Creek Bridge; White Bear Bridge (concrete girder design), over Hay Creek; Leesport Bridge (previously noted) over the Schuylkill River; Clover Leaf Bridge near Fleetwood; Tacony Creek Bridge in Greenwich Township, and a new bridge at the foot of Bingaman St., Reading. B. H. Davis, 17 Battery Pl., New York, is Engr.-in-Charge of the last-named bridge. C. F. Sanders is Engr. of Berks County.

Sharon, Penn.—The Board of Commissioners of Mercer County plans to construct a 175-ft. steel bridge. L. E. Burnside, Grove City, Penn., is Engr.-in-Charge.

Sunbury, Penn.—It is reported that the Commissioners of Northumberland County contemplate the construction of a bridge across the Susquehanna River between Herndon, Northumberland County, and Port Trevorton, Snyder County. The estimated cost is $250,000.

Newport, Ky.—Press reports state that the Director of Public Safety has condemned the 15th St. Bridge over the tracks of the Louisville & Nashville R.R. and the Chesapeake & Ohio Ry. on Washington St. The railway companies are said to be making plans for a new bridge. W. H. Courtenay, Louisville, Ky., is Ch. Engr., Louisville & Nashville R.R.

Barberton, Ohio—It is reported that Harry W. Alcorn, City Engr., will have plans completed about Mar. 1 for the proposed new bridge at East Tuscarawas Ave.

Bucyrus, Ohio—(Official)—The Board of Commissioners of Crawford County has given notice of its intention to build a new bridge over the Sandusky River, Dallas Township; to replace the McCurdy Bridge over the Sandusky River, Liberty Township; to build an extension to the Mary St. Bridge on the Miller Rd. in the City of Bucyrus. H. A. Biebighauser is County Audr.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Mar. 19, by the Board of Commissioners of Hamilton County for the construction of a concrete culvert on Bank Lick Rd., Springfield Township. Albert Reinhardt is Clk. of Comrs.

Cleveland, Ohio—(Official)—Bids will be received until 10 a.m., Mar. 13, by the Board of Commissioners of Cuyahoga County, for the construction of a new three-hinge arch, Report No. 3480. E. G. Krause is Clk. of Comrs.

Fremont, Ohio—It is reported that bids will be asked about Mar. 1 by the Commissioners of Sandusky County for the construction of the Tindall Bridge over the Sandusky River, Ballville Township. W. F. Schepflin is County Engr. Noted Aug. 27, Oct. 1 and Dec. 10, 1914.

Hamilton, Ohio—A recent court decision has declared the contract invalid which was awarded by the Commissioners of Butler County to the A. J. Yawger Co., Indianapolis, Ind., for the construction of a reinforced-concrete bridge at Woodsdale. The contract price was about $85,000. It is reported that the work will be readvertised as soon as possible. Noted July 23, Aug. 13 and Dec. 10, 1914.

Hamilton, Ohio—Press reports state that tentative plans have been prepared for the construction of a new bridge over the Miami River at Vine St. Plans call for a new type of bridge known as webbed concrete, and the estimated cost is $200,000. The citizens will be asked to vote for a bond issue to pay for the work. Joseph Meyers is Dir. of Pub. Ser.

Lancaster, Ohio—(Official)—Bids will be received until 11:30 a.m., Mar. 4, by the Board of Commissioners of Fairfield County for the superstructures of the Mike Vought Bridge, No. 1046, over the Hocking River, Greenfield Township, and the Spangler Bridge, No. 1047, over Sycamore Creek, Violet Township. George J. Gearhart is County Audr. O. E. Myers is Clk. of Comrs.

+Lexington, Ohio—(Official)—The County Commissioners have awarded the contract for the construction of the Black Bridge, one mile from Lexington, to the BURK CONSTRUCTION CO., New Castle, Ind. Noted Feb. 11.

Lima, Ohio—Press reports state that the contract will be awarded about Mar. 15 for the construction of the Pine St. Bridge over the Ottawa River. The estimated cost of the bridge is from $30,000 to $40,000. Plans were prepared by Chester & Fleming, Union Bank Bldg., Pittsburgh, Penn. Noted Feb. 11.

Mt. Vernon, Ohio—It is reported that the Board of Commissioners of Knox County has authorized the construction of a bridge at Gambier St., Mt. Vernon. The estimated cost is $20,000.

Poast Town, Ohio—(Official)—Bids will be received until Mar. 3 by W. W. Crawford, Audr. of Butler County, Hamilton, for the construction of a 142-ft. steel superstructure of a bridge and repairs to the abutments. The estimated cost of the work is $7413. Fred M. Hammerle, Hamilton, is County Surv. Noted Feb. 11.

Tiffin, Ohio—The Board of Commissioners of Seneca County has ordered plans prepared for two bridges across Honey Creek at Bloomville and Melmore. Each will be a 100-ft. span.

Tiffin, Ohio—Bids will be received until Mar. 6 by the Board of Commissioners of Seneca County, for the construction of 28 small bridges in the county. The estimated cost is $7360.

Warren, Ohio—Plans have been prepared for a new bridge over the Mahoning River at Summit St. It is estimated that the bridge will cost at least $34,000, of which Trumbull County will pay $18,000, and the city the remainder. The structure will be 325 ft. long and 43 ft. wide. B. F. McKee, Jr., is City Engr.

Greenfield, Ind.—(Official)—Bids will be received until 10 a.m., Mar. 1, by the Commissioners of Hancock County for the construction of a number of bridges. Lawrence Wood is County Audr.

Indianapolis, Ind.—The County Council of Marion County has been asked to approve an appropriation of $120,000 for bridge construction this year, of which $75,000 is for a bridge over Fall Creek at Shriver Ave.

Rensselaer, Ind.—(Official)—Bids will be received until 2 p.m., Mar. 2, by the Commissioners of Jasper County for the construction of six bridges. J. P. Hammond is County Audr.

McLeansboro, Ill.—(Official)—Bids will be received until 1 p.m., Mar. 15, by the County Superintendent of Highways, Court House, McLeansboro, for the construction of a steel bridge on reinforced-concrete abutments, Mayberry Township, Hamilton County. The estimated cost is $5600. Gregg Garrison, Garrison, Ill., is County Supt. of Highways.

Peoria, Ill.—Plans are being prepared for the construction of a 1600-ft. bridge at South Adams St. It will be of steel on concrete pedestals, and will have 25 spans. The estimated cost is $109,000. Hedrick & Cochrane, 118 McGee St., Kansas City, Mo., is Consult. Engr.

Racine, Wis.—(Official)—We are advised by James Mutter, Highway Comr. of Racine County, that plans for the proposed bridge at Mt. Pleasant are not yet completed, and that the work will probably not be advertised for some time. Noted Jan. 7.

Anamosa, Iowa—Bids will be received until 10 a.m., Mar. 2, by the Board of Supervisors of Jones County, for the construction of three bridges and two concrete box culverts in the county. E. J. Hines is County Audr.

Sioux City, Iowa—The Board of Supervisors of Woodbury County has appropriated $18,000 for the construction of 26 bridges during the coming summer.

✚International Falls, Minn.—The Board of Commissioners of Koochiching County has awarded the contract for the construction of a reinforced-concrete bridge over the Little Fork River in the Harrington District to the ILLINOIS STEEL & BRIDGE CO., Chicago, Ill., at $5990.

Garfield, Kan.—Bids will be received until noon, Mar. 15, by the Board of Commissioners of Pawnee County, Larned, for the construction of a reinforced-concrete bridge over the Arkansas River at Garfield. Alternate plans call for either a 300-ft. six arch bridge or a six-span flat top bridge. Noted Oct. 22 and Dec. 24.

Lawrence, Kan.—Preliminary plans have been prepared for the construction of a 198-ft. reinforced-concrete bridge over the Kaw River. It will cost about $200,000. H. Broeker is Clk. of Douglas County.

✚Salina, Kan.—The contract for the construction of the concrete bridge across the Smoky Hill River at Iron Ave. has been awarded to the CONCRETE CONSTRUCTION CO., Kansas City, Mo. The bridge will have a roadway of 53 ft., and two sidewalks of 8½ ft. each. The total cost of the bridge will be about $28,500. List of bidders noted Feb. 18.

Omaha, Neb.—It is reported that the Missouri Pacific Ry. has entered into an agreement with the City Commissioners to build a viaduct over its tracks on Locust St. at once. Construction work will begin not later than Mar. 15, according to press reports.

Wayne, Neb.—(Official)—All bids opened Jan. 19 by the Commissioners of Wayne County for the construction of culverts during 1915 were rejected. No time has been set for receiving new bids. Charles W. Reynolds is County Clk.

Parker, S. D.—Bids will be received until 1 p.m., Mar. 2, by O. M. Rasmussen, Audr. of Turner County, for bridge construction during 1915.

✚Sheridan, Wyo.—The Board of Commissioners of Sheridan County has awarded the contract for the construction of a bridge over the Powder River to the GREGG-STOUT CO., at $4980.

Joplin, Mo.—Press reports state that the city and the Kansas City Southern Ry. have decided to build a new viaduct on North Main St. The estimated cost is $23,500, of which the city will pay $10,000 and the railway company the remainder. J. B. Hodgdon is Comr. of Sts. and Pub. Imp.

✚Tucumcari, N. M.—(Official)—The Board of Commissioners of Quay County has awarded the contract for the construction of a wooden pile bridge across Tucumcari Creek to the MISSOURI VALLEY BRIDGE & IRON CO., Leavenworth, Kan., at $3239. The engineer's estimate was $4000. Noted Jan. 21 and Feb. 4.

✚Pima, Ariz.—(Official)—The Supervisors of Graham County, Solomonsville, have awarded the contract for the construction of a bridge over the Gila River, about one mile from Pima, to the EL PASO BRIDGE & IRON CO., El Paso, Tex., at $15,350. Noted Nov. 19 and Jan. 28.

✚Famoso, Calif.—(Official)—The Board of Supervisors of Kern County has awarded the contract for the construction of a bridge over Poso Creek near Famoso to M. HART & C. M. HART, Bakersfield, at $4469. Fourteen other bids were received. Noted Dec. 24 and Feb. 4.

✚Kerrwood, Ont.—(Official)—The Township Council has awarded the contract for the construction of a steel bridge over Steer's Creek to RICHARD WALTHAM, Kerrwood. Noted Feb. 4.

Lambton, Ont.—It is reported that bids will soon be asked for the construction of a 650-ft. bridge at Lambton for the Toronto Suburban St. Ry. and the Canadian Pacific Ry. E. T. Wilkie, 9 Toronto St., Toronto, is Engr.

Calgary, Alta.—(Official)—We are advised by J. M. Miller, City Clk., that the time for receiving bids for furnishing and erecting about $40,000 worth of steel for the superstructure of the Ninth St. Bridge across the Bow River has been extended to Mar. 12 from Feb. 12. Noted Jan. 14.

WATER SUPPLY—IRRIGATION

Boston, Mass.—Bids will be received by D. Frank Doherty, Supt. of Supplies, until Feb. 26 for 84,500 lb. c.-i. special castings and for 12 20x12-in. semi-steel special castings branches.

Spencer, Mass.—The cement lined pipe in Main St. will be replaced by c.-i. pipe.

Newport, R. I.—The construction of a new impounding reservoir is under consideration. E. W. Kent is Gen. Mgr. and Engr.

Ballston Spa, N. Y.—An election will be held to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the purchase of water meters.

Geneva, N. Y.—The citizens contemplate installing a 4,000,000-gal. pump at the water-works. H. K. Seybold is Supt. of Water-Works.

Le Roy, N. Y.—An election will be held Mar. 4 to vote on the question of issuing $110,000 in bonds, the proceeds of which will be used for the construction of a water system. Plans have been prepared by J. P. Wells, Rochester. Noted Dec. 3 and 17.

Lewiston, N. Y.—Alonzo Peabody, Buffalo, has been engaged to prepare plans for the construction of a water system. An election will be held Mar. 16 to vote bonds.

Madrid, N. Y.—The State Conservation Commission has approved plans for the construction of a municipal water system at Madrid. The estimated cost is $22,000.

✚★Mt. Morris, N. Y.—The contract has been awarded, according to press reports, to McCARTHY & WALL, Mt. Morris, at $14,114, for constructing a new distributing system. Noted Feb. 4.

Oneida, N. Y.—According to press reports a survey will be made for the construction of a pipe line to Florence Creek. The estimated cost is $500,000. J. M. Hutton is City Engr.

Port Henry, N. Y.—The Conservation Commission has granted permission to the village to make improvements to its water system.

Bordentown, N. J.—The construction of a storage reservoir and a standpipe is under consideration by the Board of City Commissioners.

Brielle, N. J.—The Board of Township Commissioners has granted the Sea Girt Water Co. a 50-year franchise for the installation of water lines throughout the township. The company plans to lay a pipe in the Manasquan Turnpike. Charles L. Noble is Pres.

Clinton, N. J.—Bids will be received until 10:30 a.m., Mar. 5, by the Board of Managers, New Jersey State Reformatory for Women, for making extensions to the water system at the reformatory.

Hawthorne, N. J.—Bids were received Jan. 29 by the Borough Commissioners for c.-i. pipe as follows: R. D. Wood & Co., Philadelphia, Penn., $44,463; John Fox & Co., New York, N. Y., $45,552; U. S. Cast Iron Pipe & Foundry Co., Philadelphia, Penn., $45,208; Standard Cast Iron Pipe & Foundry Co., Bristol, Penn., $47,199; Warren Foundry Co., Phillipsburg, $49,398; and the Central Foundry Co., New York, N. Y., $50,170. Noted Jan. 21.

Peapack, N. J.—Press reports state that the towns Peapack and Gladstone contemplate purchasing the plant of the Bedminister Water Co. F. S. Tainter is Borough Engr.

Alburtis, Penn.—At the last meeting of the Borough Council it was decided to take up with the State Health Department plans for the construction of a water system. A. K. Snyder is Burgess.

✚Pittsburgh, Penn.—The contract has been awarded to BOOTH & FLINN, LTD., Pittsburgh, at $10,212, for laying two 24-in. steel pipe lines across the North Side Point Bridge.

Wilson, N. C.—The Legislature has been petitioned by the city for authority to issue bonds for $95,000 for the construction of a water system. T. A. Hinnant is City Clk.

Woodruff, S. C.—The J. B. McCrary Co., Atlanta, Ga., has been retained by the city to prepare plans for the construction of a water system. Bonds for $37,000 have been voted. Noted July 30.

Decatur, Ga.—An election will be held Mar. 20 to vote on the question of issuing $7000 in bonds, the proceeds of which will be used for the extension of the water system. F. T. Hopkins is Mayor.

✚Clearwater, Fla.—(Official)—The contract has been awarded to the GENERAL PIPE & FOUNDRY CO., Atlanta, Ga., at $3219, for c.-i. pipe and specials. Noted Jan. 14 and Feb. 11.

Palmetto, Fla.—According to press reports, the citizens contemplate constructing a water system. T. S. Polard is Clk.

✚★Tampa, Fla.—(Official)—The contract has been awarded to McMURKEN & HYER, Tampa, at $28,463, for constructing a reinforced-concrete reservoir. Noted July 16, Jan. 7 and 21.

Notasulga, Ala.—Bids will be received until Mar. 2 for the construction of a water system. The work includes three miles of c.-i. pipe, an 80,000-gal. tank on a tower, an 80,000-gal. reservoir, a power house, gas engine and boring a well. Edgar B. Kay, Tuscaloosa, is Engr.

Phœnix, Ala.—Bonds for $15,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system. W. Ross Harrison is Mayor. Noted June 11.

Bastrop, La.—Bonds for $16,000 have been voted by the citizens, the proceeds of which will be used for the extension of the water system.

Vinton, La.—The Vinton Ice, Light & Water Co., recently incorporated with a capital of $20,000, will build a water system, an electric-light plant and an ice plant.

Columbus, Ohio—The Bourbon Copper & Brass Co., Cincinnati, at $5517, was low bidder for valves and valve boxes for the water department.

East Youngstown, Ohio—(Official)—Chester & Fleming, Engr., Pittsburgh, Penn., has prepared plans and has submitted them to the Town Council for the construction of a water system and a filtration plant.

Elyria, Ohio—Bids will be received until Mar. 3 by the Board of County Commissioners for constructing a steel water tank and tower for fire protection at the County Infirmary. F. L. Ellenberger is Clk. of Bd.

Mingo, Ohio—(Official)—At an election held recently the citizens voted against the question of issuing bonds, the proceeds of which was to have been used for purchase and improvement of the water system. Noted Jan. 28.

Shadyside, Ohio—At an election held Feb. 9 the citizens voted in favor of issuing $45,000 in bonds, the proceeds of which will be used for the construction of a municipal water system. Noted Dec. 24 and Jan. 21.

✚Shaker Heights, Ohio (Cleveland post office)—(Official)—The contract for constructing a water main in South Moreland Ave. has been awarded to ASPHALT BLOCK PAVEMENT CO., Toledo, at $70,000. C. A. Palmer is City Clk. Bids opened Feb. 16. Noted Dec. 31 and Jan. 28.

Toledo, Ohio—Bids will be received by A. W. Bordman, Dir. of Pub. Ser., until noon, Mar. 9, for constructing and equipping the high-pressure fire service pumping station. The William J. Sherman Co., Toledo, is Engr. Noted July 9 and Jan. 7.

✚Ann Arbor, Mich.—(Official)—Bids were received Feb. 15 by Manley Osgood for driving a well 16 ft. in diameter and 23 ft. deep, as follows: E. P. Deckert Co., Detroit, Mich., $7126; Benjamin Douglass Construction Co., Detroit, $4850; J. H. BAER, Port Huron, at $4488 (awarded contract); Candler Dock & Dredge Co., Detroit, $5135; Ginzel & Towler, Detroit, $5700; Robert H. Kersey, South Bend, Ind., $4985; Hutzel & Co., Ann Arbor, $7346, and Edward N. Walsh, Ann Arbor, $5500. Noted Dec. 10 and Feb. 11.

✚Saginaw, Mich.—The contract has been awarded to the MASSILLON IRON & STEEL CO., Massillon, Ohio, for c.-i. pipe and specials for the water department. Noted Mar. 19, 1914.

Schoolcraft, Mich.—Bids will be received until Mar. 1 by Smith & Boulay, Consult. Engr., Toledo, Ohio, for constructing a water system. The estimated cost is $22,000. Noted Jan. 28.

✚Anna, Ill.—The contract has been awarded to T. C. BROOKS & SONS, Jackson, Mich., at $6320 for laying water mains. Bids were opened Feb. 3. Noted Dec. 31 and Jan. 14.

★Chicago, Ill.—(Official)—Bids will be received until 11 a.m., Mar. 12, by the City of Chicago for five pumping engines to be erected at the Mayfair pumping station. L. E. McGann is Comr. of Pub. Wks. For details see advertisement under "Contracts To Be Let."

Viola, Ill.—(Official)—Bids will be received until Mar. 1 by R. D. Baxter for the purchase of $12,000 in bonds, the proceeds of which will be used for the construction of a water system. Noted Oct. 8.

Melrose, Wis.—An election will be held Apr. 6 to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a municipal water system.

Linn Grove, Iowa—Bonds for $9000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system. C. A. Fulton is City Clk. Noted Jan. 14.

Low Moor, Iowa—The Iowa Engineering Co., Clinton, is preparing plans for the installation of a water system.

Cloquet, Minn.—(Official)—Bids will be received until 8 p.m., Mar. 2, by J. A. Parks, City Clk., for constructing a concrete reservoir at the Spring Lake pumping station.

Minneapolis, Minn.—(Official)—Bids will be received until 3 p.m., Feb. 25, by K. E. Alexander, Pur. Agt., for c.-i. water pipe, valves, hydrants and corporation cocks for the year 1915.

New Ulm, Minn.—Bids will be received until 5 p.m., Mar. 2, by William Backer, City Clk., for a well casing, depth of well, 364½ ft., and a deep-well pump head.

South Stillwater, Minn.—Bids will be received until 6 p.m., Mar. 2, by Oscar Hunke, Recdr., for making extensions to the water system as follows: concrete reservoir, pumping machinery and laying pipe.

McCune, Kan.—Bids will be received about Mar. 20 for the construction of a water system. Henrici, Kent & Lowry Engineering Co., Reserve National Bank Bldg., Kansas City, Mo., is Engr. Noted Aug. 13, 1914.

✚Wellington, Kan.—Contracts have been awarded by the City Commissioners as follows: WESTINGHOUSE ELECTRIC & MFG. CO., at $30,700, for 400-kw. power factor turbo alternator units with attachments; MURRAY IRON WORKS, at $8400, for three 200-hp. boilers and superheaters; and to HENRY R. WORTHINGTON, at $8700, for pumps, feed water heater and piping. Noted Dec. 10.

Ceresco, Neb.—Grant & Fulton, Lincoln, Neb., is preparing plans for the construction of a water system. The estimated cost is $10,000.

Lyons, Neb.—(Official)—See item under "Light, Heat and Power."

Caruthersville, Mo.—Bids will soon be received for the improvement of the water system. Bonds for $30,000 have been voted for this purpose. Frank L. Wilcox, Syndicate Bldg., St. Louis, is Consult. Engr. Noted Oct. 29.

Kennett, Mo.—An election will be held Mar. 2 to vote on the question of issuing $7000 in bonds, the proceeds of which will be used for the extension of the water system. Clyde Oakes is Mayor.

✚St. Louis, Mo.—The contract has been awarded, according to press reports, to the JAMES CAMERON CO., Pittsburgh, Penn., at $42,000, for a centrifugal pump and a turbine engine for the water-works. Noted Feb. 18.

Corpus Christi, Tex.—A bond issue of $900,000 has been approved by the State Attorney General, the proceeds of which will be used for enlargement of the water system.

Lott, Tex.—Bonds have been voted, the proceeds of which will be used for the construction of a municipal water system.

Jennings, Okla.—Plans will be prepared by A. McEarlant, Tulsa, for the installation of a water system estimated to cost $25,000.

✚Rocky Ford, Colo.—The contract has been awarded to MISHON & MELLARD, Pueblo, for enlarging reservoirs Nos. 2 and 5. Noted Apr. 23, 1914.

✚Milwaukee, Ore.—The contract for laying water mains from Milwaukee to the Portland water system has been awarded by the City Council to GIEBISCH & JOPLIN, Portland, at $16,400. List of bidders noted Jan. 14.

SEWERS

Boston, Mass.—Bids will be received until Mar. 1 by the Public Works Department for laying pipe sewers and drains in Bruce, Dunbar and Weld St., West Roxbury District. L. K. Rourke is Comr. of Pub. Wks.

Boston, Mass.—Bids will be received until Mar. 2 by the Public Works Department for constructing pipe sewers and drains in Saybrook St., Brighton District. L. K. Rourke is Comr. of Pub. Wks.

Lexington, Mass.—At an election held Feb. 10 bonds for $100,000 were voted, the proceeds of which will be used for the construction of a sewer system. George E. Briggs is Chn. of the Water and Sewer Bd.

Marlboro, Mass.—The Board of Aldermen has appropriated $500 to investigate the extension of the sewer system for which the preliminary estimate is about $30,000.

Williamstown, Mass.—It is reported that the construction of an intercepting sewer will be commenced this year.

Worcester, Mass.—Bids will be received until noon, Feb. 27, for supplies for the Sewer Department for 1915. The following items will be included: 500,000 brick, 2500 tons lime, 50,000 ft. vitrified pipe and 160,000 lb. of castings. M. Gault is Supt. of Sewers.

Greenwich, Conn.—At a recent election the citizens authorized the construction of a sewer system and a sewage disposal plant. The estimated cost is $106,800. Clyde Potts, 30 Church St., New York, N. Y., is Engr.

Brookfield, N. Y.—(Official)—Plans have been approved by the Division of Sanitary Engineering of the State Department of Health for sewerage work and a sewage disposal plant.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., Mar. 22, by the Commissioner of Public Works, Municipal Bldg., for altering, constructing and improving sanitary and storm sewers.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received by L. H. Pounds, Borough Pres., Borough Hall, until 11 a.m., Mar. 17, for installing mechanical equipment in pumping station at Ave. U and Ocean Parkway, and constructing sanitary and storm water sewers in that section.

✚New York, N. Y.—(Borough of Brooklyn)—(Official)—Contracts have been awarded to NEWMAN & CAREY, at $159,630, for constructing sewers in Prospect Pl. and to the J. F. COGAN CO., at $287,437, for constructing sewers in Macon St.

Saranac Lake, N. Y.—(Official)—The Division of Sanitary Engineering of the State Department of Health has approved plans for sewerage work and a sewage disposal plant.

Saugerties, N. Y.—(Official)—Plans have been approved by the Division of Sanitary Engineering of the State Department of Health for sewerage work and a sewage disposal plant.

Scarsdale, N. Y.—(Official)—Plans have been approved by the Division of Sanitary Engineering of the State Department of Health for sewerage work and a sewage disposal plant.

Suffern, N. Y.—(Official)—Plans have been approved by the Division of Sanitary Engineering of the State Department of Health for sewerage work and a sewage disposal plant. Noted Sept. 24, 1914.

Princeton, N. J.—The Department of Public Works plans to extend the sewer system from Ewing St. to the sewer field on the Gulick farm. George Brown is Supt.

Greenville, Penn.—(Official)—Plans have been prepared by Chester & Fleming, Engr., Pittsburgh, for the construction of a sewage-disposal plant and intercepting sewers. The estimated cost is $50,000. Noted Sept. 24.

Harrisburg, Penn.—David D. Elder, Elizabethville, was low bidder, at $7643, for constructing sewers in Market Sq. and Market St. and for improving the drainage system.

✚★Philadelphia, Penn.—Contracts have been awarded to the KEYSTONE STATE CONSTRUCTION CO., at $121,000, and to A. JAFOLI, at $79,000, for constructing the Indiana Ave. sewer from Third to Seventh St. and from Seventh to Tenth St., respectively. Noted Jan. 21.

★Pittsburgh, Penn.—See item under "Streets and Roads."

★Baltimore, Md.—(Official)—Bids will be received until 11 a.m., Mar. 10, by the Board of Awards for constructing Gwynn's Run trunk drain, Section No. 1, storm water contract No. 42. John Hubert is Pres. Bd. of Awards. For details see advertisement under "Contracts to Be Let."

Columbus, Ohio—Press reports state that a territorial system of sewers will be constructed in the Driving Park Section. This system will be connected with the proposed $250,000 storm sewer for the South Side.

Dayton, Ohio—Bids will be received until Mar. 16 by Hugh E. Wall, City Accountant, for the sale of $40,300 in bonds for constructing storm sewers in various streets.

Kent, Ohio—(Official)—Bids will be received until Mar. 8 for constructing a sewage disposal plant. R. T. Bailey, Rockwell Bldg., Kent, is Engr.

Springfield, Ohio—The City Council plans to construct storm sewers in Scioto and South Main St. M. J. Bahin is City Engr.

Alton, Ill.—Bonds for $86,400 were sold Feb. 8, the proceeds of which will be used for constructing a sewer in the Upper Alton District.

Galesburg, Ill.—The Illinois State Rivers and Lakes Commission has authorized the reconstruction of the sewage-disposal system at Galesburg. The estimated cost is $1,000,000.

Caruthersville, Mo.—Press reports state that at a recent election the citizens voted in favor of issuing $32,000 in bonds for extending the sewer system. Noted Jan. 21.

✚Springfield, Mo.—Contracts for constructing sewers in Districts Nos. 35 and 30 have been awarded to JOHN SPANDRI, 520½ East Commercial St., at $11,400, and O. H. McMURRAY, Meadowbrook Pl., at $8006, respectively.

Electra, Tex.—Press reports state that the City Council contemplates constructing a sewer system.

Fort Worth, Tex.—(Cfficial)—In a report made by Hering & Gregory, Consult. Engr., New York, to the Board of Commissioners, the construction of sewage disposal works and a refuse incinerator is recommended. Noted Oct. 8.

✚Pecos, Tex.—A contract for constructing the disposal plant for the municipal sewer system has been awarded to L. P. SMART, Pecos.

Drumright, Okla.—(Official)—Plans are being prepared for the construction of sewers. J. W. Klinglesmith is City Engr. Noted Feb. 11.

Oakland, Calif.—(Official)—Bids will be received until Mar. 5 by the City Council for constructing sewers in Walnut Ave. and other streets in Leona Heights District. The estimated cost is $16,500. Perry F. Brown is City Engr. Noted Feb. 11.

Ottawa, Ont.—The City Council contemplates constructing additions to the Mechanicsville sewer system. The estimated cost is $22,000. F. C. Askwith is City Engr. and John Henderson is City Clk. Noted Sept. 17.

✚Toronto, Ont.—A contract for constructing a sewer from the foot of Berkeley St. to Cherry St. has been awarded to D. ARNOD, at $8433.

Assiniboia, Man. (Winnipeg post office)—According to press reports, a sewer will be constructed in the Fourth Ward at an estimated cost of $133,115.

Winnipeg, Man.—Bids will be received until 11 a.m., Mar. 1, by M. Peterson, Secy., Bd. of Control, for constructing sewers in various streets.

Calgary, Alta.—The City Council contemplates laying 1356 lin.ft. of 24-in. sewer pipe in the Elboya District. George M. Craig is City Engr.

Esquimalt, B. C.—Press reports state that the City Council will construct 7½ miles of sewers. The work will be started in the spring. C. H. Topp, Pemberton Ave., Victoria, B. C., is Engr.

Vancouver, B. C.—The City Council will construct a sewer in Powell St. from Nanaimo to Slocan St. The estimated cost is $6000.

STREETS AND ROADS

Boston, Mass.—Bids will be received until Mar. 2 by the State Highway Commission for the construction of 4200 lin.ft. of state road in Charlton, and 6000 lin.ft. in Swansea. Arthur W. Dean, 15 Ashburton Pl., is Ch. Engr.

Springfield, Mass.—(Official)—Bids will be received until 3 p.m., Mar. 4, by F. H. Clark, Supt. of Streets and Engineering, for trap rock, sidewalk, crosswalk, sewer and well bricks, castings, curbing, vitrified clay pipe, granite blocks and wood block paving.

East Providence, R. I.—Bonds for $32,000 were sold, the proceeds of which will be used for improving highways.

Buffalo, N. Y.—(Official)—Bids will be received until 11 a.m., Mar. 4, by the Department of Public Works, for paving Moselle, Garden and Halbert St., Hazel Pl. and Alsace Ave. Francis G. Ward is Comr. of Pub. Wks.

New York, N. Y.—(Borough of Brooklyn)—Bids will be received until 11 a.m., Mar. 3, by L. A. Pounds, Borough Pres., Borough Hall, for paving Junius St. from Dumont Ave. to Livonia Ave.

Moorestown, N. J.—(Official)—Bids will be received by the Chester Township Committee until Mar. 8 for continuing the construction of the State Aid Road between Hartford and Fairview.

Newark, N. J.—(Official)—Bids will be received until 3:15 p.m., Mar. 4, by the Board of Street and Water Commissioners for improving Orange St. Morris R. Sherrard is Ch. Engr.

Trenton, N. J.—The Board of City Commissioners plans to pave sections of various streets with brick and bituminous macadam.

✚Beaver, Penn.—A contract for 6000 sq. yd. of brick paving has been awarded to R. V. BALDWIN, Coraopolis, Penn., at $6250. Noted Jan. 28.

★Philadelphia, Penn.—(Official)—Bids will be received until noon, Mar. 16, by M. L. Cooke, Dir., Dept. of Pub. Wks., for improving the Parkway from 19th St. to 22d St.

★Pittsburgh, Penn.—(Official)—Bids will be received until 10 a.m., Mar. 2, by the Department of Public Works for grading, paving and curbing West Liberty Ave. from Warrington Ave. to the City Line and for constructing a storm sewer. The estimated cost is $382,000.

Baltimore, Md.—Bids will be received by the Board of Awards, City Hall, at the City Register's Office, until Mar. 3 for grading, curbing and paving, with sheet asphalt, and vitrified block, on concrete base, under contract 112: Pitcher St., from Fremont to Pennsylvania Ave.; Arlington Ave., from Lexington to Lanvale St.; Arlington Ave., from Lafayette to Fremont Ave.; Popleton St., from Lexington to Franklin St.; Rutland Ave., from Monument to Eager St.; Ashland Ave., from Broadway to Chester St.; Myrtle Ave., from Lexington to George St.; Pearl St., from Saratoga St. to Pennsylvania Ave.: Druid Hill Ave. from Hoffman to McMechen St.; also intersections as follows: Patterson Park Ave. and Orleans St.; Franklin and Gilmor St.; Mulberry and Gilmor St.; Franklin and Carrollton Ave.; Mulberry St. and Carrollton Ave.; Calhoun and Fayette St.; Franklin and Schroeder St.; Calhoun and Saratoga St. The above includes 49,100 sq.yd. of sheet asphalt, 6800 sq.yd. of vitrified block and 1000 sq.yd. of granite block. R. Keith Compton is Chmn. of Paving Com.

Gate City, Va.—An election will be held Mar. 9 to vote on the question of issuing $68,000 in bonds for constructing roads.

Parkersburg, W. Va.—(Official)—Bids will be received until 3:30 p.m., Mar. 11, by the Board of Commissioners, for the sale of $200,000 in bonds for street paving. Noted Feb. 18.

Welch, W. Va.—Press reports state that the citizens of McDowell County will vote Mar. 20 on the question of issuing $165,000 in bonds for constructing roads in Big Creek Magisterial District.

Yadkinville, N. C.—The citizens of Yadkin County will vote Mar. 25 on the question of issuing $200,000 in bonds for constructing roads and bridges.

Union, S. C.—The citizens of Union County will vote Apr. 6 on the question of issuing $200,000 in bonds for constructing roads.

West Palm Beach, Fla.—An election will be held Mar. 23 to vote on the question of issuing $800,000 in bonds for constructing roads and bridges.

Shreveport, La.—The City Council contemplates paving various streets at an estimated cost of $20,000.

Dover, Tenn.—According to press reports the question of issuing $100,000 in bonds for constructing roads in Stewart County was defeated.

Louisville, Ky.—The Board of Public Works will receive bids until Mar. 1 for paving a number of streets.

Pineville, Ky.—At an election held Feb. 13 the citizens voted in favor of issuing $250,000 in bonds for constructing roads and bridges. Noted Dec. 31.

Bethesda, Ohio—Plans are being prepared by H. L. Maddock, Trust Bldg., Newark, Ohio, for the construction of two miles of road.

Cleveland, Ohio—(Official)—Bids will be received until 10 a.m., Mar. 10, by the Board of Commissioners of Cuyahoga County for improving South Kinsman Rd. E. G. Krause is Clk. of the Comrs.

Dayton, Ohio—The City Council contemplates paving Norman Ave. with brick. J. B. Harshman is City Clk. and G. C. Cummin is City Engr.

East View, Ohio—(Warrensville post office)—Bids will be received until noon, Mar. 1, by Charles E. Burger, Village Clk., for the sale of $909,962 in bonds for improving roads.

London, Ohio—Press reports state that the City Council contemplates paving Walnut St.

Mansfield, Ohio—(Official)—Bids will be received until noon, Mar. 15, by the Auditor of Richland County, for grading and macadamizing a section of the new state road in Jackson and Franklin Townships. Noted Feb. 4.

Middletown, Ohio—The City Council plans to pave Hydraulic St. and North Broadway at an estimated cost of $30,000.

Mt. Gilead, Ohio—Bids will be received until 11 a.m., Mar. 19, by the Commissioners of Morrow County for improving 2½ miles of the Mt. Gilead-Delaware Rd. C. O. Higgins is County Audr.

Mt. Vernon, Ohio—Press reports state that the Commissioners of Knox County voted in favor of issuing $71,500 in bonds for road and other improvements.

New Philadelphia, Ohio—Bids will be received until 1 p.m., Mar. 11, by R. H. Nussdorfer, County Audr., for the sale of $45,000 in bonds for constructing and improving roads.

St. Bernard, Ohio—(Official)—Bids will be received until noon, Feb. 26, by Director of Public Service, for improving Church St. from Kemper to Greenlee Ave.

Warren, Ohio—(Official)—Bids will be received until noon, Mar. 3, by the Director of Public Service, for improving sections of West Market St. and Niles Ave. George T. Hecklinger is Clk. of Bd. of Pub. Ser.

★Angola, Ind.—(Official)—Bids will be received until 1:30 p.m., Mar. 10, by Roy Hirst, City Clk., for curbing and paving East Maumee St. Clark F. Powers is City Engr. For details see advertisement under "Contracts to Be Let."

Benton Harbor, Mich.—(Official)—Bids were received Feb. 15 by B. Spaulding, City Engr., for paving Columbus Ave. as follows: Harry Vander Veen, Benton Harbor, $16,191, W. B. Hutchinson, $16,726 and Bean & Jones, $17,186. Noted Jan. 28.

✚Birmingham, Mich.—Contracts for paving Maple and Woodward Ave. have been awarded to the ANDREWS ASPHALT PAVING CO., Hamilton, Ohio, at $23,486 and $46,413, respectively.

Detroit, Mich.—The City Council contemplates paving Kirby and Melrose Ave. The estimated cost is $32,000.

✚Royal Oak, Mich.—A contract for paving 4¼ miles of Woodward Ave. with concrete has been awarded to the ANDREWS ASPHALT PAVING CO., Hamilton.

Saginaw, Mich.—At a recent election the citizens voted in favor of issuing $30,000 in bonds for constructing sidewalks and crosswalks. Noted Feb. 4.

Freeport, Ill.—Press reports state that about three miles of streets will be paved with brick. The estimated cost is $35,000.

✚Milwaukee, Wis.—The Board of Supervisors of Milwaukee County has awarded the contract for grading and paving with concrete North Fond du Lac Rd., approximately three miles, to RITZLAFF & FROEMMING, Milwaukee; and for six miles on Kilbourn Rd. to the MILWAUKEE GENERAL CONSTRUCTION CO. The county will furnish materials.

Shelboygan, Wis.—Bids will be received until Feb. 27 for paving North Fourth St. John M. Steimle is City Clk.

✚Ottumwa, Iowa—A contract for paving has been awarded to the KANSAS PAVING & CONSTRUCTION CO., Kansas City, Mo., at $42,310.

Minneapolis, Minn.—(Official)—Bids have been received for 175,000 sy.yd, of yellow pine creosoted wood paving blocks, 16 lb. of oil per cu.ft., delivered f.o.b. cars Minneapolis, as follows, (a) 3½-in. blocks, (b) 4-in. blocks, (c) strips: Kettle River Co., Minneapolis, Minn., (a) $1.32¼, (b) $1.5215, (c) 2c.

Republic Creosoting Co., Minneapolis, Minn., (a) $1.32½, (b) $1.4925, (c) 1¾c.; A. W. Van Hafften, Minneapolis, Minn., (a) $1.39, (b) $1.57, (c) 2c.; U. S. Wood Preserving Co., New York, N. Y., (a) $1.48, (b) $1.69; Chicago Creosoting Co., Chicago, Ill., (a) $1.50, (b) $1.70, (c) 2¾c.

Missoula, Mont.—(Official)—Bids will be received until 10 a.m., Mar. 10, by L. E. Harris, City Clk., for improving 10,305 sq.yd. of streets.

Wynne, Ark.—The citizens of Cross County voted in favor of issuing $100,000 in bonds for constructing roads.

Bremond, Tex.—(Official)—Bids will be received until 10 a.m., Mar. 5, by S. M. Peters, Secy. of Bd. of Rd. Comrs., for constructing a system of roads and bridges in Bremond, District No. 5.

+McKinney, Tex.—A contract for paving 25,000 sq.yd. with 2-in. asphaltic concrete has been awarded by the City Council to the KAW PAVING CO., Kansas City, Mo.

+Palo Pinto, Tex.—According to press reports, a contract for improving 36.7 miles of road in District No. 1 has been awarded by the Commissioners of Palo Pinto County to CLYNES & DUNCAN, Newark, N. J., at $96,600.

+San Marcos, Tex.—A contract for constructing 6½ miles of the Nacogdoches Rd. has been awarded to A. M. CLOPTON, at $5527.

Taylor, Tex.—The City Council contemplates holding an election for the purpose of voting on the question of issuing $100,000 in bonds for street paving.

Victoria, Tex.—An election will be held Mar. 23 to vote on the question of issuing $30,000 in bonds for improving streets. Noted Feb. 11.

Pocatello, Idaho—The City Council contemplates grading and paving in Local Improvement District No. 12. The estimated cost is $50,000.

+Prosser, Wash.—The contract for improving the Kennewick-Finley Rd. has been awarded to WILLIAM MORAIN, at $18,420. Noted Jan. 28.

+Eagle Rock, Calif.—A contract for improving a portion of Sycamore Ave. and other streets has been awarded to T. E. SHAFER, at $33,986.

Fullerton, Calif.—At a recent election the citizens voted in favor of issuing $36,000 in bonds for paving. Noted Dec. 10.

Monrovia, Calif.—Bonds for $15,000 were sold, the proceeds of which will be used for improving streets.

+Porterville, Calif.—A contract for asphalt paving has been awarded to the FEDERAL CONSTRUCTION CO., San Francisco, Calif.

Stockton, Calif.—Bids will be received until Mar. 2 by the Board of Supervisors of San Joaquin County for improving about five miles of the Upper Sacramento Rd.

+Maisonneuve, Que.—A contract for grading and paving streets has been awarded to QUINLAN & ROBERTSON, 50 Notre Dame St. W., Montreal, Que., at $96,000.

INDUSTRIAL WORKS

Allston, Mass.—(Boston post office)—Plans are being prepared by John C. Spofford, Arch., for the construction of a five-story fireproof warehouse on Harvard Ave. for W. Stanley Tripp, 195 Milk St., Boston.

Boston, Mass.—The Salada Tea Co., 35 South Market St., will construct a five-story mercantile building at Berkeley and Stuart St. Densmore & Le Clear, 88 Broad St., is Arch. and Engr.

Lowell, Mass.—The United States Cartridge Co. will construct two buildings at its plant. One will be one story, 45x400 ft., and the other one story, 90x400 ft. Lockwood, Greene & Co., 60 Federal St., Boston, is Engr.

+Providence, R. I.—WILLIAM WILLIAMS, 86 Weybosset St., has been awarded the contract for the construction of four additional stories to building No. 5 of the Brown & Sharpe Mfg. Co.

+Providence, R. I.—C. I. BIGNEY CONSTRUCTION CO. has been awarded the contract for the construction of a two-story, 50x60 ft. plant for the Dolby Ice Cream Co. Frank Elwood Brown, 47 Orange St., New Haven, Conn., is Arch. Noted Feb. 18.

+Bridgeport, Conn.—The contract for the construction of a one-story, 65x352-ft. fireproof factory on Boston Ave. for the Union Metallic Cartridge Co. has been awarded to JAMES STEWART & CO., INC., 30 Church St., New York, N. Y. Noted Nov. 12.

+Bristol, Conn.—The TORRINGTON BUILDING CO., Torrington, has been awarded the contract for the construction of a 80x100-ft. rolling mill, a 30x30-ft. boiler house and a 30x30-ft. pickling house for the Wallace Barnes Co.

+New Haven, Conn.—The National Folding Box & Paper Co. has awarded the contract to the SPERRY ENGINEERING CO., 82 Church St., for the construction of a five-story, 100x350-ft. plant at Alton and James St. Estimated cost, $150,000. Noted Jan. 28.

+Buffalo, N. Y.—The Lackawanna Steel Co. has awarded the contract to the OTTO COKING CO., INC., 6 Church St., New York, for the construction of a benzol plant in connection with its byproduct coke ovens. C. H. McCullough, Jr., is Vice-Pres. and Gen. Mgr. of the Lackawanna Steel Co.

Buffalo, N. Y.—Bids are being received by G. Morton Wolfe, Arch., 638 Elicott Square Bldg., for the construction of a two-story, 40x120-ft. addition to the warehouse of the Eureka Coffee Co., Michigan Ave. and Fulton St.

New York, N. Y.—(Borough of Brooklyn)—Press reports state that the West Street Improvement Co., 85 Commercial St., will construct four six-story fireproof warehouses on Commercial St., Greenpoint. The estimated cost is $2,500,000. Cass Gilbert, Arch., 11 East 24th St., New York, has prepared plans.

New York, N. Y.—(Borough of Manhattan)—Buchanan & Fox, Arch., has prepared plans for the construction of a 10-story, 64x80-ft. storage and office building at 703-723 East 13th St. for the Eagle Pencil Co. The estimated cost is $150,000.

Poughkeepsie, N. Y.—Plans have been prepared by W. J. Beardsley, Arch., Market St., for the construction of a two-story, 45x80-ft. and a two-story, 140x191-ft. factory for Smith Bros. The estimated cost is $140,000. Noted Dec. 10.

Tuckahoe, N. Y.—(Official)—W. L. Stoddard, Arch., 9 East 40th St., New York, informs us that construction will be started about Apr. 1 on the four-story, 50x100-ft. plant and a 50x70-ft. wing for the Hodgman Rubber Co., 806 Broadway, New York. The estimated cost is $75,000. Noted Feb. 18.

Utica, N. Y.—Bids will soon be received for the construction of a three-story, 75x175-ft. storage and stable building for the West End Brewing Co. J. C. Schultz, 1370 Main St., Buffalo, is Arch.

Utica, N. Y.—James F. Leah, 411 John St., will construct a three-story, 60x160-ft. laundry and a 50x70-ft. power house. Charles Kiehm, Engr., Gardner Blk., is preparing the plans.

+Passaic, N. J.—(Official)—The MAC ARTHUR CONCRETE PILE & FOUNDATION CO., 11 Pine St., New York, N. Y., has been awarded the contract for the construction of the foundation, including piles and reinforced-concrete cappings, for the pan house and extension to the boiler house of the Paterson Parchment Paper Co., Passaic. W. W. Christie, Paterson, is Engr.

Irwin, Penn.—The Pennsylvania Electrical & Mfg. Co. will rebuild its plant recently destroyed by fire. The estimated cost is $75,000.

Mercer, Penn.—The Reznor Mfg. Co. will construct a four-story, 60x260-ft. addition to its plant. The estimated cost is $175,000. Edsal Barr, Erie, is Arch.

+Philadelphia, Penn.—The BELMONT IRON WORKS, 22d St. and Washington Ave., has been awarded the contract for the construction of an addition at 24th and Wood St. for the Ford & Kendig Co., 312 North 24th St.

Philadelphia, Penn.—Plans have been prepared for the construction of a two-story, 50x100-ft. warehouse at 35th and Hastings St. for the Philadelphia Rendering Co. Alfred Weeks, 1433 Chestnut St., is Engr.

Shenandoah, Penn.—Koelle, Speth & Co., Arch., 26th and Oxford St., Philadelphia, is preparing plans for the construction of a four-story, 34x56-ft. storage house for the Columbia Brewing Co. The estimated cost is $40,000.

Crozet, Va.—Tentative plans and specifications will soon be received by the Crozet Ice & Cold Storage Co. for the construction of a five-story reinforced-concrete cold-storage plant.

Vinton, La.—See item under "Water Supply—Irrigation."

Ashland, Ohio—Plans are being prepared by the Osborn Engineering Co., 740 Engineers Bldg., Cleveland, for the construction of a three-story, 80x120-ft. factory for the Faultless Rubber Co. The estimated cost is $30,000. C. E. Campbell is Gen. Mgr. of the company.

+Cleveland, Ohio—The Falk-Feierstein & Co., 1540 West Third St., has awarded the contract to SAMUEL AUSTIN & SON CO., 14230 Euclid Ave., for the construction of a two-story, 50x150-ft. factory at Superior Ave. and East 21st St.

Collingwood, Ohio—The Carey Co., 1396 West Ninth St., Cleveland, contemplates the construction of a 65x135-ft. warehouse and office building. The estimated cost is $75,000.

Painesville, Ohio—The Ohio Cast Steel Co., Cleveland, has purchased a site and plans to construct a plant.

Springfield, Ohio—Bids are being received by Ray Burnette, Mgr., of Inskeep Mfg. Co., for the construction of a two-story, 70x100 ft. plant at Western Ave. and Main St.

Detroit, Mich.—Albert Kahn, Arch., Trussed Concrete Bldg., has prepared plans for the construction of a four-story reinforced-concrete factory on Scotten Ave. for the Menzies Shoe Co., 431 Gratiot Ave. The estimated cost is $80,000.

Mooseheart, Ill.—The Board of Governors of the Loyal Order of Moose has appropriated $350,000 for the construction of a machine shop, foundry and printing plant. James J. Davis, M. M. Garland, Pittsburgh, Penn., and John J. Lentz, Columbus, Ohio, are Members of Bd.

Denmark, Wis.—Bids will soon be received by John Enz, Pres. of the Denmark Condensed Milk Co., for the construction of a two-story, 60x100-ft. plant. The estimated cost is $10,000. Noted Oct. 15.

+Milwaukee, Wis.—Contracts were awarded by H. W. Buemming, Arch., 521 Jackson St., for the construction of a factory and warehouse on Milwaukee near Buffalo St. for C. B. Leidersdorf Tobacco Co., 270 Broadway, as follows: DAHLMAN CONSTRUCTION CO., concrete work; F. LUENZMANN CONSTRUCTION CO., carpentry. Noted Jan. 28.

Milwaukee, Wis.—The B. J. Johnson Soap Co., Fourth and Fowler St., will construct a six-story, 123x130-ft. factory and warehouse on Fowler, between Fourth and Fifth St. W. B. Johnson is Secy.

Layton, Utah—(Official)—Construction will begin Mar. 1 on the three-story addition to the Layton Sugar Co. J. Milton Dyer, 825 Cuyahoga Bldg., Cleveland, Ohio, is Arch. Noted Feb. 11.

Murray, Utah—J. W. McHenry, Pres. of Salt Lake County Commercial Club, is interested in the construction of a plant near 16th St. S., for the manufacture of terra cotta and porcelain ware. The estimated cost is $60,000.

Spokane, Wash.—The Fairmont Creamery Co. will construct a plant at 120 West Pacific Ave. Estimated cost, $10,000. A. H. Holcomb is Resident Mgr.

Benicia, Calif.—The Benicia Tannery will construct a tannery to cost about $20,000.

+San Francisco, Calif.—The contract for the construction of a two-story reinforced-concrete warehouse for the Sperry Flour Co., 332 Pine St., has been awarded to the CLINTON FIREPROOFING CO., Mutual Bank Bldg. Estimated cost, $30,000.

+San Francisco, Calif.—ONWARD INVESTMENT CO., at $41,450, has been awarded the contract for the construction of a two-story addition to the bakery of Berhard Langendorf, 878 McAllister St. Noted Jan. 14.

San Francisco, Calif.—Plans have been prepared by Cunningham & Politer, Arch., First National Bank Bldg., for the construction of a one-story, 137x137-ft. transfer warehouse at Jones and Eddy St. for Walter E. Dean. Estimated cost, $30,000.

Toronto, Ont.—The Butterick Publishing Co., Spring and Macdougal St., New York, N. Y., will construct a five-story, 50x200-ft. printing plant on Wellington St.

Toronto, Ont.—The Rudd Paper Box Co., Richmond St., West Toronto, plans to rebuild its plant recently destroyed by fire. The estimated cost is $30,000.

FEDERAL GOVERNMENT WORK

Roadwork—Newport, R. I.—Plans are being prepared by the Bureau of Yards and Docks, Navy Dept., for the construction of roads and walks at the Governor's Landing, Newport Naval Torpedo Station.

+Post Office—Stamford, Conn.—The contract for the construction of a post office at Stamford has been awarded to the CHARLES McCAUL CO., 1715 Sansom St., Philadelphia, Penn., at $118,270. Noted Feb. 4.

Demolishing Building—New York, N. Y.—Bids will be received until 2 p.m., Mar. 16, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for demolishing and removing the front building of U. S. Assay Office.

+Dredging—New York, N. Y.—The following are the bids received for dredging in the Harlem River, N. Y.: R. G. PACKARD CO., Bayonne, N. J., $26,220 (awarded contract); John H. Sealy, $31,050; Coastwise Dredging Co., $30,935; P. Sanford Ross, Inc., $44,275; Maryland Dredging & Contracting Co., $32,200; Morris & Cummings Dredging Co., $27,312. Noted Jan. 14.

+Post Office—Morristown, N. J.—The contract for constructing the post office at Morristown has been awarded to the CHARLES McCAUL CO., 1715 Sansom St., Philadelphia, Penn., at $102,815. Noted Oct. 22 and Dec. 10.

Post Office—Plainfield, N. J.—Bids will be received by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p.m., Apr. 2, for the construction of a one-story stone post office at Plainfield.

★Stone and Riprap—Philadelphia, Penn.—Bids will be received by the Lighthouse Inspector, Philadelphia, until 2 p.m., Mar. 11, for furnishing and depositing 1000 tons of broken stone and 2100 tons of riprap at the Brandywine Shoal Light Station, Delaware Bay.

★Bridge—Washington, D. C.—Bids were received for the substitution of a through span for deck span in the Pennsylvania Ave. bridge across the Anacostia River, Washington, as follows: Penn Bridge Co., Beaver Falls, Penn., $6740; M. F. Comer & Co., Washington, D. C., $11,900; Phœnix Bridge Co., Philadelphia, Penn., $9455. Noted Jan. 21.

Building—Radio, Va.—Plans and specifications are being prepared by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of an office building at Radio, in connection with the Arlington wireless station situated there.

Post Office—Live Oak, Fla.—Bids will be received until 3 p.m., Apr. 6, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post office at Live Oak.

★+Dam, Building, Etc.—Harrisonburg, La.—The contract for building Dam No. 2, a lockmaster's dwelling, etc., on the Ouachita River at Harrisonburg has been awarded to the MILLER ENGINEERING CO., Little Rock, Ark., at $115,848.

★Dipper Dredge—Duluth, Minn.—Bids will be received by Maj. E. D. Peek, U. S. Engineer Office, Duluth, until 10 a.m., Mar. 26, for constructing and delivering the steel hull, 4½-yd. dipper dredge, "Col. D. D. Gaillard."

Hospital—Redlake, Minn.—The following are the bids received for constructing a hospital at the Red Lake Agency: National Contracting Co., Alexandria, Minn., $20,468; Frank L. Johnson & Co., Duluth, Minn., $23,769; W. D. Lovell, Minneapolis, Minn., $20,480; S. H. Marshall, Minneapolis, Minn., $23,072. Noted Jan. 28.

Addition to Post Office—Lincoln, Neb.—The following are the bids reecived for building an addition to the post office at Lincoln: George W. Stiles Construction Co., Chicago, Ill., $243,660; M. Yeager & Son, Danville, Ill., $215,698; J. W. Wiese, Omaha, Neb., $213,720; W. G. Assermacher & Co., Lincoln, Neb., $246,800; Dieter & Wenzel Construction Co., Wichita, Kan., $224,944; Campbell Building Co., of Utah, Salt Lake City, Utah, $231,816; Walter Peterson, Omaha, Neb., $244,000; F. P. Gould & Son, Inc., Omaha, Neb., $245,000; J. P. Cullen Construction Co., Janesville, Wis., $234,500. Noted Jan. 7.

+★Earthwork—Great Falls, Mont.—The contract for earthwork on the Greenfields Distribution System, Greenfields, South and Mill Coulee Canals, which involves about 385,000 cu.yd. of excavation, has been awarded to O'CONNOR & HELEAN, Great Falls, at $43,691. Noted Nov. 26 and Jan. 7.

+★Bridge—Great Falls, Mont.—The contract for erecting one highway and pipe bridge for the St Mary Storage Unit, Milk River Project, has been awarded to the MINNEAPOLIS BRIDGE CO., Minneapolis, Minn., at $8824. Noted Dec. 17 and Feb. 4.

+Earthwork—Elsberry, Mo.—The contract for constructing 100,000 cu.yd. of earthwork in the Elsberry drainage district has been awarded to the WILLIAM J. CALLAHAN CONSTRUCTION CO., Elsberry, Mo., at $13,480. Noted Jan. 21.

+Jetty Construction—Lone Tree, Wash.—The contract for delivering stone for jetty construction at Lone Tree has been awarded to the CASCADE CONTRACTING CO., Portland, Ore., at $60,550. Noted Jan. 28.

Bungalows—Mare Island, Calif.—(Vallejo post office)—Bids were received for the construction of two bungalows to be used as Marine Officers' Quarters at the Mare Island Navy Yard, as follows: Monson Bros., 1907 Bryant St., $7800; A. T. Spence, 180 Jessie St., $8964; Pringle Dunn & Co., 338 Pine St., $8245; George W. Boxton & Son, Hearst Bldg., $7372; Gutleben Bros., New Call Bldg.; $7932. (Above bidders are of San Francisco, Calif.); W. G. Thornallay, 565 16th St., Oakland, Calif., $7290; S. J. Weekes, Vallejo, Calif., $6975.

Repairs to Vessel—San Francisco, Calif.—Bids will be received by the Lighthouse Inspector until 2 p.m., Mar. 1, for docking and repairing the lighthouse tender "Columbine."

MISCELLANEOUS

Dredging—Boston, Mass.—An expenditure of $75,000 for deepening the channel of the Mystic River has been recommended to the Legislature. William F. Williams is Ch. Engr. of the Harbor and Land Comn.

Fire Station—Salem, Mass.—The City Council plans to build a fire station for Engine Company No. 4.

Conduit—Hartford, Conn.—The Board of Street Commissioners has recommended that an appropriation of $110,000 be made to pay the city's share of the cost of constructing a conduit for the waters of Gully Brook. Roscoe A. Clark is City Engr.

+Fire Alarm Signal System—Waterbury, Conn.—The City Hall Commission has awarded a contract to the GAMEWELL FIRE ALARM TELEGRAPH CO., New York, N. Y., at $17,500, for the installation of a new fire alarm signal system in connection with the construction of the new Municipal Bldg.

Signal System—Cortland, N. Y.—The Board of Fire Commissioners has passed a resolution to provide for receiving bids for the installation of a fire-alarm signaling system.

Paving Materials—New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until noon, Mar. 2, by Charles J. McCormack, Borough Pres., Borough Hall, for furnishing various paving materials.

+Dock—Troy, N. Y.—The Troy Gas Co. has awarded a contract for the construction of a 250-ft. dock in the rear of its works on Smith St. to the GREAT LAKES DREDGE & DOCK CO., Albany, at about $20,000.

★Excavator—Atlantic City, N. J.—(Official)—The Board of Commissioners will receive bids until Mar. 11, for furnishing one drag line or slack line excavator, having a capacity of 800 cu. yd. per day. Harry Bacharach is Dir. Parks and Pub. Property. For details see advertisement under "Contracts To Be Let."

Elimination of Grade Crossing—Cranford, N. J.—The Board of Public Utility Commissioners has ordered the removal of the grade crossing at Union Ave. on the Central R.R. of New Jersey. The work is to be done by the railroad company and in accordance with plans proposed by Cranford Township. The estimated cost is $420,000.

+Foundations—Chester, Penn.—The contract for the concrete pile foundations for the coke bin and coal unloading pocket at the plant of the Philadelphia Suburban Gas & Electric Co. has been awarded to the McARTHUR CONCRETE PILE & FOUNDATION CO., 11 Pine St., New York, N. Y. R. C. Cornish is Engr.

Motor Fire Apparatus—Hanover, Penn.—Bids will be received until 6 p.m., Mar. 10, by Frank C. Rowe, Secy., Hanover Township Comrs., for furnishing the Fire Department with two motor-driven chemical and hose trucks of not less than 50 hp.

Zoölogical Building—Philadelphia, Penn.—See item under Buildings.

★+Cargo Doors—Philadelphia, Penn.—(Official)—The Department of Wharves, Docks & Ferries has awarded the contract for erecting cargo doors at Piers 38 and 40 to the J. E. OGDEN CO., 147 Cedar St., New York, N. Y., at $38,500. Noted Dec. 24, Jan. 14.

+Marine Ways—Sparrows Point, Md.—The Maryland Steel Co. has awarded the contract for the construction of marine launching ways, 50x600 ft., concrete bulkhead, to the RAYMOND CONCRETE PILE CO., New York, N. Y. The estimated cost is $50,000.

Drainage—Bartow, Fla.—The Peace Valley Drainage District Commissioners have had plans prepared for draining 40,000 acres of land. The specifications call for the construction of a 9-ft. main ditch, 22 miles in length, and various laterals. The total excavation is about 2,000,000 cu.yd. The estimated cost is $275,000. C. G. Elliott, 700 10th St., N. W., Washington, D. C., is Engr.

Seawall—Bay St. Louis, Miss.—The Seawall Commissioners are preparing to issue bonds for $60,000, the proceeds to be used for constructing a seawall in the gulf.

+Drainage—Chester, Miss.—The contract for ditch work in the Big Black Drainage District No. 1 has been awarded to N. C. McGINNIS & CO., Memphis, Tenn., at $68,000.

Dredging—Cleveland, Ohio—Bids will be received until noon, Feb. 25, at the office of the Commissioner of Purchases and Supplies, Room 511, City Hall, for dredging in the Cuyahoga River. Robert Hoffman, 405 City Hall, is City Engr.

★Asphaltic Cement—Lansing, Mich.—(Official)—Bids will be received until 4 p.m., Mar. 29, by John McClellan, City Clk., for furnishing asphaltic cement.

Drain—Walkerville, Mich.—Bids will be received until 2 p.m., Mar. 4, by the County Drain Commissioners, Oceana and Newaygo Counties, for the construction of the Beaver Drain. Total length, about 38,500 ft. Orley A. Rhodes, Grant, Mich., is Drain Comr. of Newaygo County.

Dredging—Grand Rapids, Wis.—Bids will be received until 11 a.m., Mar. 1, by B. C. Chandos, Secy., Woods County Drainage District No. 5, for 17½ miles of dredge work.

Docks—La Crosse, Wis.—An ordinance will soon be introduced into the Council providing for the establishment of harbor lines; for the appointing of a harbor commission and for a bond issue of $50,000 for the construction of municipal docks.

+Park Improvements—Milwaukee, Wis.—The Board of Park Commissioners has awarded the contract for unit No. 2 of the Washington Park grandstand and field building to the NORTH-WESTERN CONCRETE CO., Milwaukee, at $17,885. The complete cost will be $50,000. A. C. Clas, Colby-Abbot Bldg., is Arch.

Ditch—Northwood, Iowa—(Official)—Bids will be received until 10 a.m., Mar. 4, by C. N. Urdahl, County Audr., for the construction of drains and ditches in Drainage District No. 9. The work consists of 3752 cu.yd. of earth excavation and laying about 54,000 ft. of 6- to 24-in. tile.

+Ditches—Fairmont, Minn.—The County Commissioners have awarded the following contracts for constructing ditches: Judicial Ditch No. 28, ANTON JEFSON, Clear Lake, Iowa, at $41,700; Judicial Ditch No. 42, J. S. R. HANSEN, Northwood, Iowa, at $21,450; Judicial Ditch No. 44, MARKLAND & CO., Fairmont, Iowa, at $12,500. Noted Feb. 4.

Canal—Salt Lake City, Utah—The City Commissioners have decided to extend the surplus canal two miles farther toward the Great Salt Lake. One-half will be completed this year, the other, next year. The estimated cost is $12,000.

Dock—Hoquiam, Wash.—The Grays Harbor Port Commission has had plans prepared for a 150x1250-ft. dock, to cost about $75,000.

+Dikes and Ditches—Kelso, Wash.—The contract for constructing ditches and dikes for Diking District No. 2, about 450,000 cu.yd. of earth excavation, has been awarded to COLLIER & STEVENSON, Salem, Ore., at 7.84c. per cu.yd. G. T. Hogg, State Bank Bldg., Kelso, is Secy. Noted Feb. 4.

Seawall and Paving—Seattle, Wash.—Plans have been completed by A. H. Dimock, City Engr., for constructing a seawall along Railroad Ave., between Madison and Washington St., and for paving along the same. The estimated cost is $120,000.

Pleasure Pier—Redondo Beach, Calif.—The city plans to vote $121,000 in bonds, the proceeds to be used in constructing a municipal pleasure pier.

Fire Station—San Francisco, Calif.—The City Department of Architecture is preparing plans for a fire station to be erected on Powell St. The estimated cost is $40,000.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Agawam, Mass.—The Board of Education contemplates the construction of a high school. Estimated cost, $70,000. Walter E. Gushee is Supt. of Schools.

Boston, Mass.—C. A. & F. N. Russell, 50½ Warren St., is preparing plans for the construction of a fireproof apartment block on Seaver St. for the Parker Estate. Estimated cost, $100,000.

Lynn, Mass.—Plans are being prepared by Edwin Earp, Arch., 333 Union St., for the construction of a three-story building for nurses. Estimated cost, $60,000.

Southbridge, Mass.—Plans are being prepared by Samuel Macintosh, Providence, R. I., for the construction of a theater for Thomas F. Murphy. Estimated cost, $75,000.

Springfield, Mass.—Bids will soon be received for the construction of a seven-story building on Chestnut near Bridge St. for the Y. M. C. A. Estimated cost, $93,000. H. A. Moseley is Chn. Bldg. Comn. Noted Jan. 21.

Greenwich, Conn.—Bids will be received about Mar. 1 for the construction of a three-story building for the Greenwich Hospital Association. Estimated cost, $250,000. Carrere & Hastings, 225 Fifth Ave., New York, N. Y., is Arch.

+Meriden, Conn.—The contract for the construction of a school and convent building for St. Stanislaus Church has been awarded to the H. WALES LINES CO. Estimated cost, $100,000.

Wallingford, Conn.—Plans are being prepared by Charles L. Palmer, 189 Church St., New Haven, for the construction of a three-story building for the Masonic Charity Foundation of Connecticut. Estimated cost, $60,000. Wallace S. Moyle, 129 Church St., New Haven, is Pres. of the Foundation.

Buffalo, N. Y.—Bids will be received by Max A. Beievl, German American Bank Bldg., for the construction of a three-story club house at 500 Delaware Ave. for the Knights of Columbus. Estimated cost, $80,000.

New York, N. Y.—(Borough of Bronx)—Plans are being prepared by the Kreymborg Architectural Co., 1029 East 163rd St., for the construction of four five-story apartment houses at 184th St. and Grand Concourse for P. J. Dwyer Building Co., 1879 Southern Blvd. Estimated cost, $200,000.

New York, N. Y.—(Borough of Bronx)—John Hauser, 360 West 125th St., is preparing plans for the construction of a five-story apartment house at Vermilye Ave. and 207th St. for G. L. Lawrence, 2228 Broadway. Estimated cost, $100,000.

+New York, N. Y.—(Borough of Manhattan)—The general contract for the construction of an 11-story store and office building on Broadway, between 41st and 42nd St., for Brokaw Bros., Astor Pl. and Fourth Ave., has been awarded to A. L. MORDECAI & SON, 30 East 42nd St. Estimated cost, $500,000. Noted Jan. 28.

+New York, N. Y.—(Borough of Manhattan)—According to press reports, the general contract for constructing a six-story addition to the Lambs Club, at 134 West 44th St., has been awarded to BROWN BROS., INC. Estimated cost, $250,000. George Albree Freeman, 311 Madison Ave., is Arch.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Louis E. Jallade, Arch., 37 Liberty St., for the construction of a seven-story, 60x140-ft. building at Lenox Ave. and 124th St. for the Y. W. C. A., 600 Lexington Ave. Estimated cost, $300,000.

New York, N. Y—(Borough of Manhattan)—Maynicke & Franke, Arch., 25 East 26th St., is preparing plans for the construction of a 22-story building on 42nd St., between Eighth and Ninth Ave., for C. H. Darmstadt. Estimated cost, $1,500,000.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by George F. Pelham, 30 East 42nd St., for the construction of two five-story apartment houses on Academy St. near Broadway for the Hudson Investing Co. Estimated cost $120,000.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until noon, Mar. 5, by the Board of Trustees, Bellevue Hospital, 415 East 26th St., for making the necessary alterations to the main building of the Harlem Hospital, Lenox Ave. and 135th St. Noted Feb. 4.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by Alfred Freeman, Arch., for the construction of an eight-story building at Fifth Ave. and 48th St. for Frank Bros. Estimated cost, $50,000.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by George F. Pelham, Arch., for the construction of a 12-story apartment house at Broadway and 89th St. for the West Side Construction Co. Estimated cost, $200,000.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were received Feb. 18 by the State Hospital Commission, Albany, for the construction of buildings at the Manhattan State Hospital, Wards Island, as follows: (a) for 100 patients, (b) for 150 patients, (c) for 200 patients, Emerson Construction Co., New York, (a) $104,100, (b) $118,500, (c) $141,000; Peter Keeler Building Co., Albany, (a) $106,522, (c) $149,222; George B. Willis & Co., Inc., New York, (a) $107,687; DeKimpe Construction Co., Hoboken, N. J., (b) $124,000; John T. Brady & Co., New York, (b) $124,840; John H. Parker Co., New York, (c) $144,567. Noted Dec. 10.

+New York, N. Y.—(Borough of Queens)—The general contract for the construction of P. S. No. 93 at Forest and Putnam Ave., Glendale, has been awarded to the FRANK J. FELGENHAUER CO., INC., 4 Court Sq., Brooklyn, N. Y. Estimated cost, $434,000.

Orchard Park, N. Y.—The Board of Education contemplates the construction of a two-story school. Estimated cost, $50,000. M. Pierce is Chn. of Bd.

Ossining, N. Y.—According to press reports, the Ways and Means Committee of the Assembly has decided in favor of constructing a cell house at Sing Sing Prison. Estimated cost, $750,000.

Saratoga Springs, N. Y.—(Official)—Bids will be received about Mar. 8 by Ludlow & Peabody, 101 Park Ave., New York, N. Y., for the construction of a two-story terminal building for the Hudson Valley R.R. Co. Noted Feb. 11.

Syracuse, N. Y.—Preliminary plans have been prepared by Taylor & Bonta, Arch., Gurney Bldg., for the construction of a three-story building at 407 West Fayette St. for the University Club, Larned Bldg. Estimated cost, $50,000.

Collingswood, N. J.—(Camden post office)—Plans are being prepared by Clyde S. Adams, Arch., Philadelphia, for the construction of a two-story, 55x100-ft. school. Estimated cost, $75,000.

Jersey City, N. J.—Benjamin Gorlin plans to construct a 14-story apartment house at Ocean Ave. and Wegman Pl. Estimated cost, $70,000.

+Ridgefield Park, N. J.—The contract for the construction of a two-story parochial school for St. Francis R. C. Church has been awarded to JOHN J. EGAN, 523 Jersey Ave., Jersey City, N. J. Estimated cost, $50,000. Noted Dec. 31.

+Short Hills, N. J.—The town has awarded the contract to FRED KILGUS, INC., 13 South Sixth St., for constructing a school to cost about $40,000.

+Swedesboro, N. J.—The contract for the construction of a two-story building for the Swedesboro National Bank has been awarded to HENRY Q. BROWN, 1714 Sansom St., Philadeplhia, Penn. Estimated cost, $40,000. Noted Nov. 19.

West New York, N. J.—(Weehawken post office)—Plans are being prepared by Gregory B. Webb, 104 West 42nd St., New York, N. Y., for the construction of a two-story school at 22nd St. and Jackson Ave. for St. Mary's R. C. German Church. Estimated cost, $50,000.

Woodstown, N. J.—The lowest bid received for the construction of a two-story school was that of Alexander Chambley, at $74,250. Albert W. Dilks, Mutual Life Bldg., Philadelphia, Penn., is Arch.

Ardmore, Penn.—According to press reports, Cassia Lodge No. 273 F. and A. M. is considering plans for a building to cost $50,000.

+Myerstown, Penn.—The contract for the construction of a two-story school has been awarded to the BEARD CONSTRUCTING CO., Reading, Penn., at $43,300. E. Z. Scholl, Reading, is Arch.

Philadelphia, Penn.—Plans are being prepared for the construction of two four-story wings to the La Salle College, Broad and Stiles St. Estimated cost, $100,000.

+Philadelphia, Penn.—The contract for the construction of a building at 34th St. and Girard Ave. for the Philadelphia Zoölogical Society has been awarded to J. C. CORNELL, Land Title Bldg., at $55,000. Miller & Meigs, 205 S. Juniper St., is Arch.

+Philadelphia, Penn.—The contract for the construction of a nine-story commercial building at 13th and Appletree St. for Louis A. Belmont, has been awarded to CRAMP & CO. Estimated cost, $300,000. Charles E. Oelschlager is Arch.

Philadelphia, Penn.—Plans are being prepared by Wilson, Eyre & McIlvaine, Arch., for the construction of a two-story 40x90-ft. building on Kensington and Indiana Ave. for the McPherson Park Branch of the Philadelphia Free Library. Estimated cost, $40,000.

South Bethlehem, Penn.—Plans are being prepared by A. W. Leh, Arch., for the construction of a three-story, 150x156-ft. high school. Estimated cost, $185,000.

Frederick, Md.—Plans are being prepared by J. B. Hamme, York, Penn., for the construction of a building for Hood College. Estimated cost, $65,000.

Washington, D. C.—Bids will soon be received for the construction of a two-story, 100x216-ft. school. Estimated cost, $135,000. Snowden Ashford is Arch.

Washington, D. C.—Plans are being prepared by J. H. de Sibour, Hibbs Bldg., for the construction of a six-story, 100x150-ft. apartment house on Massachusetts Ave., near Du Pont Circle, for Mrs. Stanley McCormick. Estimated cost, $450,000.

Fairmont, W. Va.—Plans have been prepared by Seymour & Dairs, Sansom St., Philadelphia, Penn., for the construction of normal schools and dormitories for the State Board of Control. Estimated cost, $300,000.

✚Atlanta, Ga.—The contract for constructing the 16-story Connally Bldg. at Whitehall and Alabama St., for E. L. Connally has been awarded to the WELLS BROS CO., Washington, D. C., at $300,00.

Miami, Fla.—Preliminary plans are being prepared for the construction of a building for the Methodist Episcopal Church South. Estimated cost, $40,000. J. R. Cason is Pastor.

Camden, Tenn.—Bids will be received until Apr. 1 by A. S. Hassell, County Clk., for the construction of a two-story, reinforced-concrete, 60x100-ft. court house. Estimated cost, $40,000. Edward Dougherty, Nashville, is Arch. Noted Jan. 21.

Louisville, Ky.—L. Keller & Sons plans to construct a three-story, 125x200-ft. apartment house on Third St., between Avery and Brandeis Ave. Estimated cost, $100,000.

Alliance, Ohio—Bids will soon be received by Willard Hirsh, Arch., Swetland Bldg., Cleveland, for the construction of a building for the Alliance Hospital Association.

Cincinnati, Ohio—(Official)—Bids were opened Feb. 16 for the construction of the $2,500,000 courthouse and jail for Hamilton County. The lowest bidder for the general contract was Charles McCaul Co., Philadelphia, Penn., at $1,999,900, granite, and $1,763,000, limestone. Lowest bids for subcontracts were as follows: McGarvey & Co., 907 Gerke Bldg., masonry, $249,677; Henry Niemes, 4112 Hamilton Ave., Northside, plumbing, heating and power plant, $123,080; Allis-Chalmers Co., West Allis, Wis., engines, generators and electric equipment, $21,690; Cincinnati Clay Products & Supply Co., 409 Johnston Bldg., metal work, $169,000; Standard Marble Works, 706 West Front St., marble, $644,000. Noted July 23, Sept. 3, Dec. 3 and 10.

Cincinnati, Ohio—The Board of Education recently purchased a 600x2000-ft. site. A three-story high school, to cost about $750,000, will be constructed on the property. C. W. Handman, care Business Dept., 511 West Court St., is Secy. of Board.

Cincinnati, Ohio—The citizens have petitioned the School Board to construct a school in the Walnut Hills Section. The estimated cost is $100,000.

Cleveland, Ohio—The Library Board has chosen seven architects to compete in a contest for the best plans for the construction of a building. The estimated cost is $1,800,000. D. F. Hamlin is professional advisor of the contest.

Cleveland, Ohio—Plans have been prepared by Walker & Weeks, Arch., 1900 Euclid Ave., for the making of additions and alterations to the New England Bldg., 627 Euclid Ave. The estimated cost is $1,250,000.

East Cleveland, Ohio—Meade & Hamilton, Arch., Garfield Bldg., has prepared plans for the construction of the Carnegie library on Euclid Ave. The estimated cost is $55,000. Noted Jan. 21.

Lancaster, Ohio—Wilbur T. Mills, Arch., Columbus, is preparing plans for the construction of the City Hospital, to cost about $50,000.

Rittman, Ohio—Bids will be received until noon, Mar. 3, by R. E. Faber, Clk. of Bd. of Education, for the construction of a school to cost about $40,000. The National Engineering Co., Marshall Bldg., Cleveland, is Engr. Noted Aug. 13 and Sept. 17.

✚Battle Creek, Mich.—The contract has been awarded to ANDERSON-STRANDBERG CO., 19 South La Salle St., Chicago, Ill., for the construction of a 1½-story building for the Old National Bank. The estimated cost is $150,000.

✚Detroit, Mich.—The contract for the construction of a 23-story, 80x128-ft. office building for the Simon J. Murphy Co., 1225 Penobscot Bldg., has been awarded to GEORGE A. FULLER & CO., 320 Penobscot Bldg. The estimated cost is $1,300,000. Donaldson & Meier, 1314 Penobscot Bldg., is Arch.

Sandusky, Mich.—The County Commissioners will rebuild the courthouse recently destroyed by fire. The estimated cost is $150,000.

✚Chicago, Ill.—The contract for the construction of the nine-story office building at Wabash Ave. and Jackson Blvd., for Lyon & Healy, has been awarded to WELLS BROS. CO., 53 West Jackson Blvd. The estimated cost is $750,000.

Chicago, Ill.—Alfred S. Alschuler, Arch., 28 East Jackson Blvd., is preparing plans for the construction of a 14-story fireproof office building on Randolph and Dearborn St. for E. Eiger & Bros., 1249 Wabash Ave. The estimated cost is $350,000.

Chicago, Ill.—The Luther Institute, 1135 South Marshfield Ave., has purchased a site at Park Ave. and Wood St. The institute will construct a seminary to cost about $100,000.

Chicago, Ill.—The Hampden Club, 2732 Hampden Court, will construct a 139x165-ft. club house at foot of Buena Ave. and the lake shore. The estimated cost is $100,000. William B. Frankenstein is Pres. and Leopold Asher is Secy.

East St. Louis, Ill.—A. B. Frankel, Arch., 264 Arcade Bldg., is preparing plans for the construction of a building for the Immanuel Evangelical Church, 1135 Gaty Ave. The estimated cost is $50,000.

Baraboo, Wis.—Bids will soon be received by Charles W. & George L. Rapp, Arch., 69 West Washington St., Chicago, Ill., for the construction of a 90x140-ft. theater and auditorium for A. Ringling. The estimated cost is $45,000.

Kenosha, Wis.—Bids will be received about Mar. 1 for the construction of a two-story lodge and assembly hall for the Kenosha Aerie No. 1055, Fraternal Order of Eagles. The estimated cost is $50,000. Joseph Lindl, 312 Main St., is Arch.

Ladysmith, Wis.—Bids will be received about Mar. 1 for the construction of a three-story, 40x100-ft. building for St. Mary's Hospital. Estimated cost, $40,000. L. T. Liebert, Wausau, is Arch. Noted Nov. 19.

Madison, Wis.—The Board of Regents of the University of Wisconsin has approved plans for the first of several dormitory buildings to be constructed for men students. The estimated cost is $135,000. M. E. McGaffrey, Administration Bldg., is Secy.

Waukesha, Wis.—It is reported that the Board of Education plans to build a new school costing from $50,000 to $70,000. August Jacobson is Secy. of Bd.

✚Muscatine, Iowa—The contract for the construction of a three-story armory has been awarded to JAMES H. SELDEN. Noted Oct. 22.

Sioux City, Iowa—Plans are being prepared by Beuttler & Arnold, Arch., Davidson Auto Blk., for the construction of the Elks Lodge at Eighth and Douglas St. The estimated cost is $70,000. Noted Jan. 14.

Sioux City, Iowa—The Rescue Mission plans to construct a building on an island at the foot of Ninth St. The estimated cost is $50,000. James Daubney is Supt.

Sioux City, Iowa—Beuttler & Arnold, Arch., Davidson Auto Blk., is preparing preliminary plans for the construction of a four-story building at Sixth and Pierce St. The estimated cost is $100,000.

✚Duluth, Minn.—The contract for the construction of the new armory at 13th Ave. E., and London Rd. has been awarded to GEORGE H. LOUNSBERRY, Duluth, at $107,410. Noted Dec. 31 and Jan. 14.

Proctor, Minn.—Plans are being prepared by Vernon J. Price, Arch., 607 Palladio Bldg., Duluth, for the construction of a high school. The estimated cost is $90,000.

St. Paul, Minn.—Plans have been approved by the City Council for the construction of the St. Paul Union Station. The estimated cost is $15,000,000. Noted Dec. 24.

St. Paul, Minn.—(Official)—John Fishel, Grand Secy. and Recdr. of Masonic Bodies, Smith and Sixth St., informs us that it probably will be a year or more before sufficient funds are secured for the construction of a $100,000 home for the aged. Noted Feb. 11.

Arkansas City, Kan.—The Newman Dry Goods Co. will construct a four-story fireproof department store on Summit St. The estimated cost is $100,000.

Yankton, S. D.—At a recent election, the citizens voted in favor of issuing $100,000 in bonds, the proceeds of which will be used for the construction of a new school.

Williston, N. D.—Plans have been accepted for the construction of a hotel to cost about $100,000 for a corporation at Williston. R. T. Frost, Minot, is Arch.

✚Kansas City, Mo.—The Board of Education awarded contracts for the construction of three schools as follows: William Cullen Bryant School, to J. R. VANSANT CONSTRUCTION CO., at $74,950; Mark Twain School, to H. EILENBERGER & CO., 122 South Michigan Ave., Chicago, Ill., at $84,500; Kensington School, to BERT ELMER, at $85,055. James B. Jackson, Jr., is Secy. of Bd. of Dirs.

Springfield, Mo.—Carl Boller & Bro., Arch., 7 Gayety Theater Bldg., Kansas City, Mo., is preparing preliminary plans for the construction of a theater. Estimated cost, $75,000.

El Paso, Tex.—The Y. M. C. A. contemplates the construction of an addition to its building. The estimated cost is $150,000. J. H. Nations is Pres.

Colorado Springs, Colo.—The Board of Trustees will construct a 40x250-ft. hospital at the Modern Woodmen Sanatorium. The estimated cost is $60,000. J. A. Rutledge, M. D., is Supt.

Ogden, Utah—The Federal Land & Mortgage Co. will construct an apartment house at 26th St. and Washington Ave. The estimated cost is $200,000.

Everett, Wash.—W. E. Hastings, Arch., Commerce Bldg., is preparing plans for the construction of a reinforced-concrete addition to the Monroe School. The estimated cost is $50,000.

Tacoma, Wash.—Marcus Loew, 1493 Broadway, New York, N. Y., will construct a theater. The estimated cost is $400,000.

Walla Walla, Wash.—Robert F. Tegan, Arch., Morgan Bldg., Portland, Ore., is preparing plans for the construction of a reinforced-concrete hospital for the Sisters of St. Vincent. The estimated cost is $250,000.

Klamath Falls, Ore.—The Klamath Lodge No. 1247, B. P. O. E., will construct a building at Third and Main St. Estimated cost, $40,000. C. S. Moore is a Member of Bldg. Com.

Portland, Ore.—R. F. Wassell, D. B. McBride and A. C. Going will construct a five-story apartment house at 18th and Couch St. The estimated cost is $125,000.

Eureka, Calif.—J. P. Stevens and associates, San Francisco, contemplate the construction of a brick hotel. Estimated cost, $150,000.

✚Fresno, Calif.—The contract for the construction of the Washington School has been awarded to TREWHITT & SHIELDS, Rowell Bldg., at $103,998. W. D. Coates, Jr., Rowell Bldg., is Advisory Arch. Noted Sept. 10 and Jan. 21.

Redondo Beach, Calif.—Louis J. Baumbeck will construct a three-story brick building at Diamond and Pacific Ave. The estimated cost is $50,000. L. B. Pemberton, 807 Auditorium Bldg., Los Angeles, is Arch.

San Diego, Calif.—Plans have been prepared by A. H. Stibolt for the construction of a seven-story reinforced-concrete apartment house at 24th and B St. for the Oregon Improvement Co. The estimated cost is $300,000. T. J. Newell is Pres.

San Francisco, Calif.—The lowest bid for the construction of an academic building at the Polytechnic High School was submitted by P. F. Reilly Co., Western Planing Mills, Berry near Sixth St., at $86,906. Noted Aug. 13.

San Francisco, Calif.—Marcus Loew, 1493 Broadway, New York, N. Y., will construct a theater to cost about $1,000,000. This is one of the many theaters Mr. Loew plans to build in the West.

San Francisco, Calif.—Bliss & Faville, Arch., Balboa Bldg., is preparing plans for the construction of a two-story gymnasium on Sutter St. for the San Francisco Women's Club. Estimated cost, $40,000

London, Ont.—The Board of Education plans to construct a number of schools to cost about $200,000. R. W. Shaw is Chn. of Bd of Education.

Contracts to Be Let

Bids received until Mar. 12, 1915.

Proposals for Street Paving

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Friday, March 12th, 1915, at 12 o'clock Noon, for curbing and paving streets in the City of Wilkes-Barre, Pennsylvania. Bids to be submitted in accordance with specifications, copies of which may be had upon application to B. K. Finch, City Engineer, upon the payment to him of the sum of Five Dollars ($5.00), which will be refunded to bidders, provided specifications are returned to the City Engineer on or before March 15th, 1915. Bids to be submitted as follows:—For sheet asphalt in two sections, totaling about 40,000 square yards; For vitrified brick in four sections totaling about 46,000 square yards; For cobblestone in one section of 600 square yards; For vitrified brick and macadam in one section of 7,500 square yards, together with the necessary red stone, blue stone or concrete curbing. Certified bank check for Five Hundred Dollars ($500.00) to accompany each bid except for cobblestone, which will be for One Hundred Dollars ($100.00). Proposals to be endorsed "Proposals for curbing or paving" and addressed to Fred H. Gates, City Clerk. The City Council reserves the right to reject any or all bids received.

CHARLES N. LOVELAND, Superintendent,
Department of Streets and Public Improvements.

* * *

Bids received until Mar. 2, 1915.

Building Extension at State Hospital

Trenton, N. J.

Sealed proposals will be received at the office of the Governor, Trenton, N. J., until twelve o'clock noon on Tuesday, March 2nd, 1915, for furnishing all labor and material necessary for the further extension of the House of Detention for Convict and Criminal Insane at the State Hospital, Trenton, N. J., in accordance with plans and specifications on file in the office of the Commissioner of Charities and Corrections, State House, Trenton, N. J.

Each bidder must accompany his proposal with a certified check for ten per centum of the amount of his proposal, payable to his order, properly endorsed, which will be returned to the unsuccessful bidder immediately following the award of the contract.

Proposals must be enclosed in envelopes sealed and marked "Proposals for the further extension of the House of Detention for Convict and Criminal Insane at the State Hospital, Trenton."

E. I. EDWARDS,
Secretary State House Commission.

* * *

Bids received until Mar. 5, 1915.

Concrete Pavement and Bituminous Surface

Roselle Park, N. J.

Sealed proposals will be received by the Mayor and Council of the Borough of Roselle Park, N. J., for concrete pavements and appurtenances at eight thirty P.M. Friday, March fifth, 1915.

Plans and specifications may be obtained at the office of the undersigned between the hours of eight thirty A.M. and 12 M. upon payment of a deposit of $10.00, which will be refunded upon return of same.

A certified check for $500.00 must accompany each proposal.

The Council reserves the right to reject any or all proposals as may be deemed best for the interests of the Borough.

W. H. LUSTER, Borough Engineer,
286 N. Broad St., Elizabeth, N. J.

Bids received until Apr. 13, 1915.

Automatic Valves and Check Valves

DEPARTMENT OF WORKS.

Toronto, Ont.

Tenders will be received by registered post only, addressed to the Chairman of the Board of Control, City Hall, Toronto, Canada, up to noon on Tuesday, April 13th, 1915,

For the Supply of
Automatic Valves and Check Valves.

Specifications and Tender Form for the foregoing may be obtained upon application at Room 12, Purchasing and Accounting Section, of the Department of Works, City Hall, Toronto.

Envelopes containing tenders must be plainly marked on the outside as to contents.

The usual conditions relating to tendering as prescribed by City By-law must be strictly complied with, or the tenders may be declared informal.

Tenderers shall submit with their tenders the names of two personal sureties, approved by the City Treasurer, or in lieu thereof, the bond of a guarantee company, approved as aforesaid.

The lowest or any tender not necessarily accepted.

T. L. CHURCH (Mayor),
Chairman, Board of Control.

Toronto, February 8th, 1915.

* * *

Bids received until Mar. 10, 1915.

Canal and Conduit. Electrical Pumping Machinery

SALEM AND BEVERLY WATER SUPPLY BOARD

Sealed bids will be received at City Hall, Salem, Massachusetts, at ten o'clock, March 10, 1915, for the construction of additional works for water supply from the Ipswich River. Plans may be seen, and the form of proposal, specifications, contract and bond may be obtained after February 17, 1915, at the City Hall, Salem, and at the office of Hazen, Whipple & Fuller, consulting engineers, 30 East 42nd Street, New York City.

The work will be divided into two parts: The first contract includes the construction of a dredge, 120,000 cubic yards of excavation, 2870 feet of conduit and accessories. The second contract covers an electric motor driven centrifugal pump, a steam turbine driven generator, transmission line, transformers, switchboard, and wiring.

N. MATTHEWS.
P. J. KELLEY.
J. W. BLACKMER.

Salem, February 10, 1915.

* * *

Bids received until Mar. 2, 1915.

Paving and Sewer

Pittsburgh, Pa., Feb. 16, 1915.

SEALED PROPOSALS for grading, paving and curbing West Liberty Avenue, from Warrington Avenue to the City Line, and the construction of a storm sewer for the drainage thereof, will be received at the office of the City Controller, Municipal Hall, Pittsburgh, Pa., until 10:00 o'clock A.M. March 2nd, 1915. Estimated cost $382,000.00. Bids shall be made from the contract plans and specifications to be obtained at the office of the Department of Public Works, Room 432 Henry W. Oliver Bldg., upon making deposits of $5.00 and $15.00 respectively for same. Proposals must be accompanied by a bond on the form furnished by the City in the amount of $191,000.00, duly and legally executed by the bidder with a satisfactory surety or trust company which has complied with the City ordinances relating thereto.

JOSEPH G. ARMSTRONG, Mayor,
ROBERT SWAN, Director,
Department of Public Works.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

PRICE CHANGES AND THE BUSINESS OUTLOOK

Improvement in business during February did not take as much of a stride forward as it did in January, but practically all the gain that was recorded the first month of the year was sustained during the second, and in some lines of trade was even exceeded. It is regrettable, but true, that most of the business in the metal line goes to make up munitions of war or the like.

Construction work promises to open more actively this year. Highway work will go forward actively, and a great deal of municipal improvement already projected will be put through.

Railroad work is not active. Some of the stronger lines are making improvements, but a great many railroad companies are still in a weak position financially and are unable to make any special headway in the matter of financiering.

The financial position is peculiar. Money is plentiful; credit is available for temporary needs; but capital to be put into permanent construction is extremely difficult to obtain. There is so much floating indebtedness that banks and other financial institutions, as well an individuals, are insisting on the funding or payment of temporary obligations before any new projects can be put forward.

The iron trade shows a slight improvement, chiefly in the matter of output, and some fair orders have been taken for rails. Structural business is extremely light, though pipe and sheets are in good, active demand.

The phenomenal rise of spelter—the price advanced to nearly 10c. at the end of February, compared with a quotation of slightly over 5c. in August—is upsetting many established traditions of trade. For example, galvanized sheets have advanced out of all proportion to the increase in the cost of black sheets, due entirely to the cost of spelter. Galvanized pipe, too, is much dearer in proportion. Brass sheets are very much higher, and all kinds of brass goods are bound to feel the increase in the cost of spelter. The high price of spelter is an entirely legitimate one, as most of the spelter furnished to Europe has come from Germany, and this supply is now entirely cut off.

The wonderful exports of products of American farms and American manufacturing establishments are turning the balance of trade strongly in our favor, and where it was with extreme difficulty that foreign government payments were financed in August, now that exchange has moved so strongly against foreign countries, gold is likely to come here in quantity unless (which is most probable) large credits are established. There is a prospect that the large agricultural shipments will be cut off by supplies from eastern Europe, but the American farmer is endeavoring to put in the largest crop of grain that he has ever done, and with good weather this should make for better business all over the country.

The Court of Appeals of the State of New York, late in February, declared the Alien Labor Clause constitutional. This means that much of the subway work in New York must halt at least temporarily, it being generally felt that no further penalty will be required of contractors. It is a question whether this decision will be carried to the United States Supreme Court, but it is certainly to the interests of contractors to secure definite information on so important a subject.

Municipal bond sales during February totaled $38,127,000 compared with $34,606,894 in the corresponding month last year.

Prices of portland cement have declined 15c. per bbl. and now are down to the lowest figure in years, especially in the New York market.

LABOR

A great many employers are likely to be disappointed if they think labor is going to be phenomenally cheap this year. Such will not be the case. The shrewdest judges of the situation believe that the prevailing rates of labor are here to stay, and there are more likely to be increases than decreases. Of course, on the New York subways, where a number of alien laborers were thrown out on account of the Labor Law, there is a great rush of unemployed to do the work. These, however, cannot stand such work. The steel mills are already taking account of conditions, and the opinion is voiced that should activities be resumed on the old accustomed scale, it will be extremely difficult to secure enough foreign laborers to do the work. In the winter season there was not the unemployment such as was generally expected.

CEMENT, LIME AND BRICK

Portland Cement—The New York market is almost nonexistent. Some of the largest dealers here are filling every available part of their yards with cement, which nets them $1.22. There is not much danger in buying as they do, for the bags will undoubtedly be paid for, as the sellers are financially strong. Some of the weaker companies have made contracts for future delivery at these prices. The quotation means a price of 58 to 60c. in bulk at the mill. These are the lowest prices recorded in a dozen years. In the West prices are higher in spite of the fear that a number of independent mills may be gathered into a compact organization. Prices, which are for barrels of cement less the charge of 40c. made for bags, are as follows:

Chicago	$1.11	Boston	$1.46
Detroit	1.19	Cleveland	1.16
Jersey City	0.74	Duluth	1.32
New York	0.82	Minneapolis	1.30
St. Paul	1.30	Pittsburgh	1.00

Brick—Storage room at the yards of material men is especially valuable just now for the storage of cement, and brick prices are nominal at $5 to $5.50. There seems little likelihood that any high prices will be current this year.

Crushed Stone—Some contracts have been made for future delivery at slight concessions from the ruling price, but for the most part 1½-in. stone is selling at 80 to 85c. and ¾-in. stone at 90 to 95c. These quotations are per cu.yd. in large loads of 500 cu.yd. delivered alongside of dock, New York.

Gravel—The prices of gravel are unchanged at 85c., but subway gravel is held at $1.15 by the largest distributor, while some sales have been made at $1.10.

Lime—Little business is current. For what business is doing, prices remain unchanged at 97c. per bbl. for state common, 200 lb. net; $1.37 for 30 lb. barrel; $1.55 for 300 lb. finishing; $1.10 for 200 lb. finishing; and $1.72 for 350 lb.

IRON AND STEEL

Pig Iron—Cast iron pipe foundries in the Philadelphia district have purchased about 40,000 tons of pig iron and 40,000 tons of Southern iron have been ordered by buyers in England. The market conditions at various points show improvement especially at Cincinnati and Chicago. Throughout the Central West there is an increasing disposition to sound the market for requirements for the last half of the year and sellers expect large sales could be made at present prices. As furnaces are not willing to sell at those prices negotiations have not taken definite form.

Inquiries for export are being broached and the fact that freight rates may be more favorable increases the probability of sales in addition to those already reported.

Domestic business continues light in nearly all sections. The principal recent sale reported from Pittsburgh was 3500 tons of cold blast charcoal iron. In the Ohio Valley there are several inquiries for both malleable and gray foundry iron amounting to about 4000 tons for consumption in Ohio and Indiana. Prices remain about stationary. Quotations for pig iron in lots of 100 tons or over at the points named are as follows: Cincinnati, Southern Foundry No. 2, $13@13.25; Northern Foundry No. 2, $14@14.50; Northern Foundry No. 3, $13.50@14. In New York iron is quoted as follows: No. 2-X Northern Foundry, $14.25@14.70; No. 2 plain Northern Foundry, $14@14.50; No. 2 Southern Foundry, delivered tidewater, $14@14.25. In Birmingham, Southern Foundry No. 2 is $9.50@10. In Chicago, Southern Foundry No. 2 is $13@13.75. In Pittsburgh, bessemer iron is $14.55 and basic $13.45, including the 95c. freight rate from the valley to the Pittsburgh district.

Steel Rails—While business was not so large as during the first month of the year, and it is evident that the replacement this year will be small, and perhaps as limited as during 1913. It is known, that the railroads have been allowing their equipment and roadbeds to seriously deteriorate, probably more so in the case of equipment than in roadbeds. The railroads have not kept pace with the growth of the country in the last five years, nor have they kept pace with the growth of business in the last decade, but it is evident that some day business will have to come in on a much larger scale. There are foreign inquiries in the market, but the high freight rates at present preclude the closing of any of these contracts. Quotations for standard lots of 1000 tons or over are unchanged as follows: Standard sections of bessemer, $28; open-hearth, $30, f.o.b. Pittsburgh, per net ton; girder rails in 30-ft. lengths are $36.40 per gross ton, and in 60-ft. lengths, $38.40, both f.o.b. New York. Other quotations, f.o.b. Pittsburgh, for large lots, the price being given in cents per lb., are as follows: Standard sections, 1.25c.; 25 to 35 lb., 1.15c.; 15 to 20 lb., 1.20c.; 12 to 14 lb., 1.25c.; 8 to 12 lb., 1.30c. Relaying rails, New York, are $19, and Pittsburgh and Chicago are quoted $23 to $24.

Structural Shapes—Business is not at all active, although a few structures have been advanced from the purely prospective stages. Most of these are for New York. There is a new building at 8th Ave. and 33d St. which will require 8000 tons, and a Broadway structure near 42d St. will call for 2000 tons. A bridge for export will amount to only 500 tons, but it is important. A pier at 47th St. calls for 300 tons. In general, construction work is light, and the railroads are not doing the bridge work that was expected. Prices are unchanged, as follows: I-beams 3 to 15 in., channels 3 to 15 in., angles, 3 to 6 in., T's 2 in. and over, 1.15c. Pittsburgh. Other quotations include I-beams over 18 in., H-beams over 18 in., channels over 15 in., and angles over 4 in., 1.30c.; T's 1.25c.; deck beams and bulb angles, 1.50c.; handrail T's, 1.95c. Cutting to specified lengths is charged at the following rates: Under 3 ft. to 2 ft. inclusive, 25c. per 100 lb.; 2 ft. to 1 ft. inclusive, 50c.; less than 1 ft., $1.55. No charge is made for cutting to lengths over 3 ft. In Chicago, the base price is 1.34c.; in New York, 1.26 to 1.31c.; in Philadelphia, 1.25 to 1.30c.; in San Francisco, 2. to 2.05c.

Cast-Iron Pipe—Business in the East is not so active as it was a month ago. It seems that most of the business that was going to be placed at low prices has already been let, and consumers are in an easy position; having contracted for most of the material they will use this year, they are disposed to wait and see if still lower prices may not be made.

No especially large orders have been placed, although the Hawthorne, N. J., job went to the R. D. Wood Co. In the West it seems that business is more active than for some time. The following quotations are made on cast-iron pipe in dollars per net ton at the points named: Birmingham, Ala., 4-in. and larger, $19.50; New York, N. Y., 6-in., $20 to $20.50; Chicago, 4-in., $26, 6- to 12-in., $24, over 12-in., $23. Cleveland, 3- to 20-in., $21.50, 24- to 48-in., $21.

Gas pipe is held $1 per ton higher in all markets.

Plates—Activity in the shipbuilding line is responsible for fairly active operations at the plate mills. Contracts have recently been taken for more boats to be built at the Atlantic Shipyard, and there are now eighteen freight and passenger boats which have been contracted for since Dec. 1. Some of these boats are barges, and there is one ferryboat, but it looks as though the shipbuilding yards would have more business in the next few years than before in a number of years. Plate mills in the Pittsburgh district are operating at about 60% of capacity, although some mills are operating as high as 93%. Prices for plates for immediate delivery are higher at 1.15c. Pittsburgh. This includes all sizes above ¼-in. In Philadelphia plates are 1.30 to 1.35c., in New York 1.31 to 1.36c., and in Chicago 1.30 to 1.34c.

Pipe—Discounts for pipe were changed, bringing about higher net prices for all sizes of pipe below 7-in. The increase in black pipe was about 5%, but in galvanized it amounted to fully 10%, and it is doubtful if these quotations will hold for any length of time, considering the abnormal spelter market. As it is, prices are unusually low, in consideration of the cost of raw materials. Discounts, revised about Feb. 20, for large orders amounting to carloads and more are as follows:

	Black	Galvanized
¾- to 2-in. steel, butt welded	80%	69½%
2½- to 6-in. steel, lap welded	79%	68½%
7- to 12-in. steel, lap welded	77%	66½%

At these discounts, the net prices of pipe per foot, in large lots, at Pittsburgh are as follows:

	Cents			Cents	
Diameter	Black	Galvanized	Diameter	Black	Galvanized
¾-in.	2.20	3.50	5-in.	31.00	47.00
1-in.	3.40	5.20	6-in.	40.40	61.00
1¼-in.	4.60	7.00	7-in.	55.00	80.00
1½-in.	5.50	8.40	8-in.	57.50	84.00
2-in.	7.40	11.15	9-in.	79.50	$1.16
2½-in.	12.20	18.60	10-in.	95.00	$1.38
3-in	16.10	24.20	11-in.	$1.06	$1.55
4-in.	22.90	34.50	12-in.	$1.17	$1.70

Sheets—Prices of galvanized sheets have advanced more rapidly than ever before. In the aggregate this amounts to $8 per ton, and is due entirely to the phenomenal advance in spelter. No. 28 galvanized sheets at the mill now sell at $3.40 per 100 lb., and should the mills be obliged to purchase spelter in the open market it is doubtful if they can come out whole on this quotation. The demand is large, but the trade fears further advance, as stocks at the mills and in the hands of distributors have been unusually low.

The following quotations are for large lots of sheets in Pittsburgh, and small lots from store, New York.

	Cents per Pound			
	Large lots Pittsburgh		Warehouse delivery New York	
	Black	Galv.	Black	Galv
No. 10	1.55	2.40	....	....
No. 12	1.55	2.50	....	....
No. 14	1.60	2.50	....	....
No. 16	1.65	2.60	2.35	3.25
Nos. 18 and 20	1.70	2.80	2.40	3.40
Nos. 22 and 24	1.75	2.90	2.45	3.55
No. 26	1.80	3.05	2.50	3.70
No. 27	1.85	3.25	2.55	3.85
No. 28	1.90	3.40	2.60	4.00

Steel Shapes—Prices are steady and without change; there is more of a demand due to higher prices at the mill but it is still far below normal. From jobbers' warehouse New York, prices are as follows:

	Cents Per Pound
Refined iron:	
1 to 1⅞ in., round and square	1.85
1½ to 4 in. x ⅜ to 1 in	1.85
1½ to 4 in. x ¼ to 5/16 in	2.05
Norway bars	3.20
Burdens bar iron	3.15
Soft steel:	
¾ to 3 in., round and square	1.85
1 to 6 in. x ⅜ to 1 in	1.85
1 to 6 in. x ¼ and 5/16	2.00
Rods—⅝ and 11/16 in	1.95
Bands—1½ to 6x3/16 in. to No. 8	2.15
Beams and channels—3 to 15 in	1.90
Angles:	
3 in. x ¼ in. and larger	1.90
3 in. x 3/16 in. and ⅛ in	2.35
1½ to 2¾ in. x 3/16 in. and thicker	2.00
11½ to 2½ in. x ⅛ in	2.10
1 to 1¼ in. x 3/16 in	2.10
1 to 1¼ in. x ⅛ in	2.15
Tees:	
1½ to 2½x¼ in	2.05
1½ to 2½x3/16 in	2.15
3 in. and larger	1.95

Steel Sheet Piling—Prices are without change at 1.55c. to 1.60c. per lb. f.o.b. Pittsburgh.

Freight Rates—The freight rates on finished steel products from the Pittsburgh district, including plates, structural shapes, merchant steel and iron bar, pipe fittings, plain and galvarized wire, nails, rivets spikes, and bolts, black sheets (except planished) chains, etc., are as follows in cents per hundred pounds: Albany, 16; Buffalo, 11; Boston, 18; Baltimore, 14½; Canandaigua, 13½; Cleveland, 10; Columbus, 12; Cincinnati, 15; Chicago, 18; Denver, Colo., 85½; Harrisburg, 14½; Louisville, 18; New York, 16; Norfolk, 20; Philadelphia, 15; Rochester, 11½; Richmond, 20; Scranton, 15; St. Louis, 23; Washington, 14½.

Old Materials—The prices of scrap have advanced slightly, but the chief interest in the market lies in the fact that it is being closely watched, and while sales are more numerous they are not meant to make any great difference in price, but they show that the scrap market has apparently touched bottom. There have been several small purchases, but enough to indicate the trend of events. Heavy melting steel scrap, which is perhaps the index to the steel scrap, is higher in New York at 25c.; in Chicago the outside price is slightly higher; while in Pittsburgh the old minimum of $11 has given way, and there is nothing under $11.75. Such gains as this are not to be found throughout the market, but this represents conditions in the trade. A feature of interest in addition to this is the reported negotiations for a 5000- to 10,000-ton contract for Italy. It is probable that Italy will have to buy quite a little scrap from this county. The prices of old materials in New York are as follows:

	Per Gross Ton
Heavy-melting steel scrap	$8.25 to $8.50
Pipes and flues	8.00 to 8.25
No. 1 railroad wrought	9.50 to 10.00
Stove plate	9.00 to 9.25
No. 1 machinery cast	11.00 to 11.50
Wrought turnings	5.75 to 6.25

In Chicago the market is steady with not much change. The following prices are quoted.

	Per Gross Ton
Heavy-melting steel scrap	$9.75 to $10.25
	Per Net Ton
No. 1 railroad wrought	$9.00 to $9.50
No. 2 railroad wrought	8.50 to 9.00
No. 1 cast scrap	9.00 to 9.25
Pipes and flues	7.00 to 7.50
Agricultural malleable	7.50 to 7.75
Railroad malleable	7.75 to 8.25

The Pittsburgh market shows little change except in foundry cast, which is offered at 50c. a ton less, and a drop in the price of heavy melting steel scrap.

	Per Gross Ton
Heavy-melting steel scrap	$11.75
Re-rolling rails	12.00
No. 1 foundry cast	$11.75 to 12.00
Old car wheels	11.50 to 12.00
Machine shop turnings	7.75 to 8.00
Railroad malleable	9.75 to 10.00

Wire Rope—The revised quotations of a month ago did not stimulate any large business but manufacturers report a little better inquiry. Discounts are unchanged at 47 and 5% from list for galvanized, and 55 and 5% for bright. At these discounts the net price of wire rope at the mill is as follows:

Diameter in Inches	Price per Foot		
	Cast Steel	Crucible Steel	Plow Steel
2½	$0.75	$0.90	$1.07
2¼	0.61	0.73	0.86
2	0.47	0.57	0.67
1¾	0.39	0.49	0.58
1½	0.28	0.34	0.40
1¼	0.20	0.24	0.27
1	0.13	0.15	0.18
¾	0.08	0.09	0.11
⅝	0.06	0.07	0.08

Chain—Prices are steady and without change, as follows: These prices are per 100 lb., f.o.b., Pittsburgh:

3/16 in	$7.50	½ and 9/16 in	$3.00
¼ in	4.95	⅝ and 11/16 in	2.90
5/16 in	3.95	¾ and 13/16 in	2.80
⅜ in	3.40	⅞ and 15/16 in	2.70
7/16 in	3.20	1 to 1¼ in	2.60

EXTRAS TO ABOVE LIST PER 100 LB.

	For BB	For BBB
3/16-in. and ¼-in	$1.50	$2.00
5/16-in. and larger	1.25	1.75

Freight Rates via Panama—The ocean freight market is very uncertain. It is difficult to secure enough vessels to carry the cargoes offered. An advance of 5c. per 100 lb. is now demanded for shipments from New York and Philadelphia bringing the quotation to 30c. For large lots of steel, such as shapes, reinforcing bars, plates wire and similar products, the rates to Pacific Coast points are as follows: From Bethlehem, 37.5c.; Chicago, 55c.; Cleveland, 44c.; Coatesville, 40c.; Johnstown, 39.5c.; New York, 30c.; Niles, 43c.; Philadelphia, 30c.; Pittsburgh, 46c.; Steubenville, 41c.; Wheeling, 41c.; Youngstown, 43c.

Coke—The market is extremely dull and prices are lower than a month ago. Production is larger, the output being 250,000 tons weekly. Prompt shipment of furnace coke can be had at $1.55 to $1.65 and contracts are made at $1.65 to $1.75. For foundry coke $2 to $2.50 is paid for prompt and $2.25 to $2.50 for shipments. All these prices are per net ton.

Wire—Business is fair but there is no especial snap. Some believe the difference between plain wire and galvanized should be more than 40c. per 100 lb. Prices are steady. Plain wire to retailers Pittsburgh is quoted at $1.40; galvanized wire to retailers Pittsburgh, $1.80 to $1.85; painted barbed wire, $1.55 to $1.60, and galvanized barbed wire $1.95 to $2. Polished staples are $1.50 to $1.55, and galvanized staples

$1.90 to 1.95. Wire nails are quoted at $1.63 Pittsburgh. All of these quotations are per 100 lb. in large lots.

REINFORCING MATERIALS

Bars, Concrete Reinforcing—The advance of $1 per ton went in effect Mar. 1 as scheduled; but there was no rush to place contracts. For April delivery a quotation of 1.15c. is promised. Prices are as follows:

	Cents per Pound		
Size	Mill Shipments Pittsburgh	*Warehouse Pittsburgh	Delivered from *Warehouse New York
¾-in and larger...	1.15	1.50	1.95 to 2.00
⅝-in.	1.20	1.65	2.00 to 2.05
½-in.	1.35	1.80	2.15 to 2.20
⅜-in.	1.45	1.90	2.25 to 2.30
¼-in.	1.75	2.20	2.60 to 2.65

*Bars from warehouse are cut to desired length without extra charge.

Triangle Mesh—Business is quiet but the tonnage booked during February was equal to that booked in the corresponding month in other years. Prices are without change as follows:

PRICE PER 100 SQ.FT.

		Plain Material		Galvanized	
Style No.	Cross Sec. Area per Ft. Width	Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.	Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.
†4	$0.102	$1.00	$1.23	$1.12	$1.34
5	0.077	0.80	0.97	0.89	1.00
6	0.058	0.63	0.77	0.71	0.84
†7	0.041	0.49	0.60	0.55	0.66
†23	0.170	1.69	2.05	1.88	2.24
24	0.142	1.46	1.77	1.62	1.93
25	0.124	1.29	1.57	1.43	1.71
†26	0.110	1.17	1.42	1.30	1.55
†27	0.085	0.96	1.17	1.07	1.28
28	0.066	0.80	0.97	0.89	1.06
29	0.049	0.66	0.80	0.73	0.87
31	0.261	2.49	3.02	2.76	3.29
32	0.225	2.16	2.62	2.40	2.86
33	0.196	1.93	2.34	2.14	2.55
34	0.146	1.48	1.80	1.64	1.96
35	0.109	1.117	1.42	1.30	1.55
36	0.075	0.87	1.05	0.97	1.15
38	0.380	3.55	4.30	3.93	4.68
†39	0.325	3.05	3.70	3.38	4.03
40	0.283	2.68	3.25	2.97	3.54
41	0.208	2.05	2.48	2.27	2.70
42	0.151	1.55	1.88	1.72	2.05
†43	0.101	1.10	1.34	1.23	1.46

†This material is made in regular widths of 18, 22, 26, 30, 34, 42, 46, 50, 54 and 58 in. Standard lengths in rolls are 150, 250, 300 and 600 ft.

METALS

Copper—The market in copper, while quiet, has maintained the high prices reported a month ago, electrolytic being held at 14¾c. and Lake at 15¼c. per pound. Orders for export appear to have fallen off but the continuance of the war will no doubt bring larger demands from abroad. Production is being maintained at about 50% of capacity. In some quarters the opinion is expressed that any considerable movement in exports will have the effect of increasing the output at the mines. The trade realizes that it required a large amount of buying to carry the price from 11⅛c. to nearly 15c. in about ninety days and consumers would like to know how great the inroad into refiners' stocks has been as the result of the manufacture of war material to say nothing of the use of metal in the arts. The general condition of the trade appears to be improving and sentiment is hopeful for a continuance of a lively market for some time to come with prices around the level recently attained.

Tin—A temporary scarcity of spot tin together with a fair demand for small lots had the effect of advancing prices to 38c. Tin from the steamer "City of Bristol" was available on March 1 which relieved the scarcity for quick shipment tin in the New York market. There is also a good demand for March and April positions. March being quoted at 37¼c. and April at 38c. Arrivals at ports of the United States during February aggregated 3110 tons and the cargoes afloat amounted to 2510 tons.

Lead—The market for lead was firm but quiet, with prices generally higher. Spot is held at 3.90c. New York and 3.80c. East St. Louis.

Spelter—Prices for spelter are much higher owing to a genuine shortage in the supply. Spot is quoted at 10¼c. New York and 10c. East St. Louis.

Antimony—The advance in all grades of antimony reported last has been maintained. Ordinary brands are quoted at 18@19½c. for spot while Cookson's is quoted at 22c. and Hallet's 20c.

Old Metals—The market for old metals has been quiet; the demand being on a small scale. Dealers buying quotations are only approximate.

	Cents
Copper, heavy and crucible	13.10
Copper, heavy and wire	12.75
Copper, light and bottoms	11.50
Brass, heavy	9.25
Brass, light	7.00
Heavy machine composition	10.50
Composition turnings	9.00
Lead, heavy	3.75
Zinc, scrap	5.00

Miscellaneous Metals—The prices of various metals from jobbers' warehouse, New York, are as follows:

	Per Pound
Bismuth	$3.75 to $4.00
Brass tubes, iron-pipe sizes:	
½ in.	19.00c.
¾ in. to 3 in.	18.00c.
3½ in.	18.00c.
4 in.	19.00c.
Brass rods	17.00c.
Brass sheets	17.25c.
Solder	24.00c.
Copper tubes	21.50c.
Zinc sheets	13.00 to 13.50c.
Copper sheets	19.75c.
Pig tin (five-ton lots, cash)	40.00c.

CLAY PRODUCTS

Sewer Pipe—Only a very slight improvement has been shown in the market during the past month. Discounts remain the same, as follows: 3 to 24-in., 78%; 27 to 30-in., 70%; 33- to 36-in., 55%. At these discounts, net prices are as follows:

PRICE OF SEWER PIPE PER FOOT

Size		Size	
3-in	$0.055	18-in.	$0.418
4-in.	0.055	20-in.	0.495
5-in.	0.088	22-in.	0.66
6-in.	0.088	24-in.	0.715
8-in.	0.1265	27-in.	1.35
10-in.	0.184	30-in.	1.65
12-in.	0.22	33-in.	2.20
15-in.	0.297	36-in.	2.45
18-in.	0.418		

Flue Lining—Business has been very dull during the month and the market remains unchanged, the discounts being 80% from list. At this rate, prices are as follows:

FLUE LINING PRICE PER FOOT

Size	Weight in Lb.	Price per Ft.	Size	Weight in Lb.	Price per Ft.
4½x8½-in	14	$0.07	8½x18-in	45	$0.18
4½x13-in	20	0.09	13x13-in	45	0.17
7½x7½-in	15	0.08	13x18-in	57	0.24
8½x8½-in	18	0.09	18x18-in	75	0.40
8½x13-in	28	0.13			

MISCELLANEOUS

Lumber—The market is much confused, but prices are only slightly lower than in the summer. This is in spite of a marked falling off in the domestic demand and no corresponding increase in the export situation. The whole reason may be summed up in the inability to secure low freight rates. Coastwise rates have advanced, and the withdrawal of a number of steam vessels for service to Europe has put correspondingly heavy demands on sailing vessels. Shipments through the Panama Canal, from which great things were expected, have, it is true, fully materialized, and 40,000,000 ft. of lumber has come from the Pacific Coast to the New York market by that route. Recently some of the leading shippers have refused to make any further contracts for lumber through the Canal. This is because shipping may be more profitably employed in doing other work. Great Britain has been a buyer of hardwood from the South, owing to the activity in its shipbuilding yards, and there seems to be no doubt that owing to the great destruction of merchant shipping, also fishing vessels, there will be a widespread demand for lumber some day. At present, however, there is absolutely no way of foretelling when conditions will improve. Prices show but little change in New York. Frames are quoted at $24, and hemlock boards at $20 to $22, in yards; spruce boards at $20 to $23. Clapboards are quoted at $52 to $54 for spruce.

Hardwood—The prices of hardwood show little change, the demand being exceedingly light. Ash boards are quoted at $60 to $64; bass wood $42 to $45; birch $54 to $56; maple boards $38 to $42; quartered oak $85 to $90; plain oak $55 to $60.

Lath—Quotations for lath are steady at $4 to $4.25 for 1⅝ in. and $3.65 to $3.75 for 1½ in.

Draft Animals—The havoc the Boer war created in the mule market in America is being duplicated by the large purchases of horses by representatives of Great Britain, France, and Italy. Although there were in the United States about 22,000,000 horses the first of the year, the purchases are variously estimated at from 100,000 to 500,000. However, the official figures of the Department of Commerce show exports numbering 30,000 for December. For the year 1914 the exports were 92,923 head compared with 29,352 in the previous year. Prices have advanced rapidly, as the result of these small exports even, and although these horses are not such as contractors use, they will make a difference in the cost of all kinds of horses. The buyers are desirous of obtaining rather light horses, weighing from 1000 to 1150 lb., and 15 to 15½ hands high. When the purchasing first began, there was paid $155 to $165, delivered at points of inspection, usually county seats, but this price has advanced, and cavalry horses are now bringing $175 to $180. A larger horse, used for artillery, must weigh to meet specifications 1200 to 1400 lb., and these are paid for at $185 to $195.

Lighterage Limits—The free delivery or "Lighterage Limits" in New York are as follows: In Manhattan, from a point opposite the Fort Lee ferry, south along the Hudson River around the Battery and north along the East and Harlem Rivers to the Jerome Ave. Bridge at 155th St. In New Jersey, south from Fort Lee ferry to Bayonne City, points on the north and east shores at Staten Island, between Bridge Creek (Arlington) and Clifton, both inclusive, and including Elm Park, Erastina and Shooters Island. In Brooklyn, from 69th St., Bay Ridge, north to Pot Cove, Astoria, Borough of Queens.

Rubber—Prices are slightly stronger than last month, most of the advance coming in the last few days of February. Up-river Para fine is now squarely at 60c., while up-river Para coarse cannot be had at less than 48c. Island fine is slightly easier, at 53 to 55c., while Island coarse is considerably cheaper at 29c. Balata sheet is 50 to 52c.; Ceylon sheet 62 to 64c., while Ceylon Crepe is higher at 63 to 65c. All of these prices are per pound.

Railway Ties—Conditions remain about the same as they were a month ago. However, should inquiries come from any of the ocean-going ports for a supply, there might be a rapid advance, due to the shipping conditions. We quote standard first-class ties as follows: 7x9 in. by 8 ft. 6 in., 72c.; 6x8 in. by 8 ft., 63c. These prices are f.o.b. New York.

Offering of National Forest Timber—The United States Forest Service is offering for sale 382,000,000 ft. of timber on the Crater and Paulina forest in Oregon. This is the largest body of timber ever placed on the market in Oregon by the Forest Service, and it stands among the largest of national forest timber offerings. The timber is in two blocks, one of 7120 acres, just east of the Crater Lake National Park; the other of 17,560 acres on the watershed of Bear Creek, near Upper Klamath Lake, in the Paulina forest. Both tracts are tributary to Klamath Falls, Ore. All but 10,000,000 ft. is Western yellow pine of good quality, the best being sugar, lodgepole and Western white pine. The location and topography of the larger area are described as excellent for logging and that of the smaller as fair. A cutting period of nine years will be allowed a purchaser of the smaller tract, twelve years for the larger, and a maximum of sixteen years to a purchaser of both tracts. It is estimated that an investment of $340,000 will be necessary for an operation on the larger tract.

The minimum price at which bids will be accepted is $3 per 1000 ft. for the yellow and other pines on the smaller tract, $3.25 on the larger tract, and 50c. per 1000 ft for the less important species, which may be removed at the option of the purchaser. Sealed bids will be received by the District Forester at Portland, Ore., until Apr. 10, 1915.

The Whiting Foundry Equipment Co., Harvey, Ill., recently made a wonderful record for prompt shipment on an order for a three-motor electric traveling crane, 10 tons capacity, 30 ft. span. Telegraphic order was received at its plant Jan. 23, calling for delivery of crane complete on purchaser's runway at New Bridge, Del., Feb. 10, 1915. Drawings were made, crane constructed, and shipment made Jan. 29, 1915. Crane reached New Bridge, Feb. 4, and was erected, complete, ready for service Feb. 6, or four days ahead of schedule time.

The Compressed Gas Manufacturers' Association, 25 Madison Ave., New York, desires that manufacturers of valves, cylinders, recording gages, filling and weighing stands, and materials and appliances which enter into the manufacture, transportation, and sale of compressed gases, send such printed matter as they may have to this Association.

The Troy Wagon Works Co., Troy, Ohio, announces that construction has been started on a new motor truck trailer works. The new building will be 120x140 ft., having a ground area of 1680 sq.ft. The company expects to turn out sixty trailers a week. Trailers are now made in three sizes: 1½ tons, 2½ tons, and 5 tons. All except the 1½ tons are reversible, while the 1½ tons is nonreversible.

Wood, Bancroft & Doty, railroad and grading contractors, has recently opened an office at 740 Reserve Bank Building, Kansas City, Mo., L. I. Viall being in charge. The home office of this firm is First National Bank Bldg., Omaha, Neb. This firm has the contract for the drainage work on the Delaware River in Atchison County, Kan., and work will be begun soon on this project. Some concrete bridge work at Lexington, Neb., is also under contract.

The Keasbey & Mattison Co., Ambler, Penn., announces that Howe Bros. has recently been appointed agent at 1198 San Pedro St., Los Angeles, Calif. This firm will carry and sell coverings and textile goods for the State of California south of Fresno, and also for the States of Arizona, New Mexico, and Utah.

The Troy Wagon Works Co., Troy, Ohio, announces the selection of J. L. Keir as the company's representative in Philadelphia. His office will be in the Abbott Bldg., Broad and Race St. He will sell Troy Trailers, Reversible Traction-Drawn Wagons, and Dump Wagons.

The Chapin Construction Co., paving contractors, formerly of Kansas City, Mo., is now located at 229 Monroe Bldg., San Antonio, Tex.

Activity of Manufacturers Commended—With the revival of business now seen from many points of view, it is interesting to note that the Mayor of St. Louis and the President of the St. Louis Business Men's League late in December wrote to all the St. Louis manufacturers urging them to follow the example of Broderick & Bascom Rope Co. That was to keep all their employees working, even if they had to be on part time. The particular work done by the Broderick & Bascom Rope Co. was that they so arranged their working force so that every employee on the payroll had work some of the time, and fortunately the company was able to keep its men better employed than most of the iron and steel manufacturers. In December the entire St. Louis plant was run full time, giving both day and night forces work. While this necessitated piling up some surplus stock, it kept the organization intact, so the manufacturing efficiency might be fully maintained when the demand became more lively.

The MacArthur Concrete Pile & Foundation Co., 11 Pine St., New York, N. Y., has appointed Waldo Bros., 45 Batterymarch St., Boston, Mass., sales agent for New England. This company has done a large amount of foundation work in New England, and is prepared to take contracts for all kinds of foundations.

CATALOG NOTICES

The Terry Steam Turbine Co., Hartford, Conn. Bulletin No. 19. Centrifugal pumps. Illustrated, 64 pp., 6x9 in.

The George Haiss Mfg. Co., 141st St. and Rider Ave., New York. Bulletin No. 115. Wagon loaders. Illustrated, 4 pp., 6½x9 in.

Buffalo Meter Co., 290 Terrace, Buffalo, N. Y. Bulletin. "Water Meter Rates and Regulations." Illustrated, 12 pp., 8½x10½ in.

James Leffel & Co., Springfield, Ohio. Pamphlet Z. Leffel, Samson and Niagara turbine water wheels. Illustrated, 24 pp., 6x9 in.

Hydraulic Turbine Corp., Camden, N. Y. Catalog D. Francis hydraulic turbines. Illustrated, 40 pp., 8x10½ in.

Alberger Heater Co., Buffalo, N. Y. Catalog. Multi-head water heaters, Ross expansion joint. Illustrated, 24 pp., 6x9 in.

The Atlas Car & Mfg. Co., Cleveland, Ohio, Bulletin No. 1175. Storage battery locomotives, cranes and cars. Illustrated, 32 pp., 6x9 in.

Blaw Steel Construction Co., Pittsburgh, Penn. Bulletin No. 65. Blawforms for concrete sidewalk, curb, curb and gutter, road and similar construction. Illustrated, 18 pp. 6x9 in.

C. O. Bartlett & Snow Co., Cleveland, Ohio. Bulletin No 43. Skip hoists. Illustrated, 8 pp., 6x9 in.

Chas. T. Main, Engineer, 201 Devonshire St., Boston, Mass. Catalog. Industrial plants. Illustrated, 62 pp., 7½x9 in.

Chain Belt Co., Milwaukee, Wis. General Catalog No. 56. Elevating, conveying and concrete machinery. Illustrated, 304 pp., 6x9 in.

National Drain Tile Co., Terre Haute, Ind. Catalog. Drain tile. Illustrated, 46 pp., 4x9 in.

The Whalen Form, Syracuse, N. Y. Folder. Collapsible steel culvert form. Illustrated.

Bresee Mfg. Co., Mattoon, Ill. Folder. Road graders. Illustrated.

William B. Scaife & Sons Co., Pittsburgh, Penn. Pamphlet. Central Power Station Economy. Illustrated, 8 pp., 4x9 in.

The C. C. Fouts Co., Middletown, Ohio. Booklet. Pure iron silos, grain bins, tanks, garages, corrugated portable culvert pipe, metal shelving, etc. Illustrated.

Toledo Scale Co., Toledo, Ohio. Catalog. Automatic scales. Illustrated, 32 pp., 7½x11 in.

Felt & Tarrant Mfg. Co., Chicago, Ill. Pamphlet. The Comptometer as applied to Engineering Calculations. Illustrated, 24 pp., 6x9 in.

Evens & Howard Fire Brick Co., St. Louis, Mo. Booklet. Fire brick. Illustrated, 24 pp., 3x6 in.

Stow Flexible Shaft Co., Binghamton, N. Y. Bulletin No. 54. Stow flexible shaft and electric motor for drilling, grinding, screw driving, etc. Illustrated, 4 pp., 6x9 in.

Jeffrey Mfg. Co., Columbus, Ohio. Bulletin No. 143. Malleable and steel elevator buckets. Illustrated. 20 pp. Bulletin No. 147. Swing hammer pulverizers. Illustrated, 48 pp. Bulletin No. 167. Belt conveyors. Illustrated, 24 pp.

IMMIGRANTS ADMITTED INTO THE UNITED STATES

The reports of the Department of Commerce and Labor show that the immigrants admitted into the United States in December were 20,944, the smallest of any month on record, in the last decade. The total immigrants for the year 1914 numbered 688,495, which was likewise the smallest of any year since 1902. While the falling off is not all accounted for in the last five months of the year, it is well to note that for the six months ending Dec. 31, 204,884 were admitted, compared with 734,869 in the corresponding half year in 1913. The greater part of the falling off was naturally of the Polish and Hebrew races and those from the south of Italy. In the accompanying table is shown the monthly total of immigrants arriving at ports of the United States, as reported by the Department of Commerce and Labor. From figures compiled for the last sixty years, the smallest immigration is shown in 1862, when only 72,183 aliens came to America, but immigration rapidly became normal, and by 1866 the tide was coming in nearly as strong as in the early '50's. The greatest number of immigrants admitted in any one year was in 1907, when 1,285,000 foreigners, classed as immigrants, came to these shores.

	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905
January	44,708	46,441	38,453	36,361	50,242	43,868	27,220	54,417	51,127	56,236
February	46,873	59,156	45,380	42,826	57,980	67,154	23,381	65,541	68,686	67,105
March	92,621	96,958	91,195	81,687	136,745	113,038	32,517	139,118	132,392	126,908
April	119,885	136,371	99,839	98,036	135,052	116,754	41,274	145,256	150,397	137,050
May	107,796	137,262	113,635	95,361	133,544	107,839	36,317	184,886	150,927	127,511
June	71,728	176,261	92,425	71,019	105,025	85,470	31,947	154,734	119,900	112,336
July	60,377	138,244	78,101	51,737	73,153	66,218	27,570	97,132	84,403	76,090
August	37,706	126,180	82,377	50,110	78,574	59,771	27,782	98,825	81,592	63,409
September	29,143	136,247	105,611	62,599	83,931	67,619	38,238	98,694	95,341	77,549
October	30,416	134,140	108,300	69,418	83,895	75,608	40,994	111,513	99,974	86,750
November	26,298	104,671	94,739	61,765	74,353	85,049	37,067	117,476	94,621	61,374
December	20,944	95,387	76,315	61,626	59,481	68,711	46,003	66,574	85,466	62,116
Total	688,495	1,387,318	1,026,370	782,545	1,071,885	751,786	782,870	1,285,349	1,101,725	1,026,499

RAILWAYS

North Carolina—W. W. Barber, Edgemont, and J. Robert Campbell, Newland, are interested in the construction of a railway from Edgemont to Newland, N. C., about 20 miles.

Georgia—It is reported that surveys are now being made for a line to be built from Jacksonville, Ga., northeast to Lumber City, about 20 miles. An old lumber line extending about half the distance between these two places is to form part of the new line. C. F. Smith, Pres., Ocmulgee River Lumber Co., is interested.

Florida—See item under "Miscellaneous"—Track Material, Jacksonville, Fla.

Mississippi—Mississippi Eastern Ry.—Plans are being considered by this company for the extension of its line from Quitman, Miss. P. Bowles, Quitman, is Ch. Engr.

Tennessee—Cincinnati, New Orleans & Texas Pacific Ry.—This company contemplates the extension of its line to North Chattanooga, Tenn. C. Dougherty, Cincinnati, Ohio, is Ch. Engr.

Kentucky—The Brodhead-Garrett Co., Clay City, Ky., contemplates the extension of its railway from the Nada Mill at Lombard, Ky., for a distance of five or six miles.

Kentucky—Lexington & Eastern R.R.—This company has authorized a bond issue of $7,500,000 for the purpose of financing the construction of extensions in eastern Kentucky, for which surveys have been made. Contracts for the work will soon be awarded. H. C. Williams, Louisville, Ky., is Ch. Engr. Constr.

Illinois—Burlington, Mississippi River & Eastern Ry.—This company is considering plans for the extension of its line from Keithsburg, Ill., to a point opposite Muscatine, Ia., then in an easterly direction to Cambridge and Kewanee, Ill., connecting with the Chicago division of the Chicago, Burlington & Quincy. It is estimated that 1,600,000 cu.yd. of earth excavation will be required, for which contracts will be let about May 1. There will be four bridges, varying in length from 50 to 250 ft. These will be concrete arches. M. J. Healy, Joy, Ill., is Pres. and Ch. Engr.

Wisconsin—Balsam Lake & Eastern R.R.—This company has applied to the Wisconsin Railroad Commission for permission to construct a six-mile railway in Polk County, Wis.

Kansas—St. Louis & San Francisco Ry.—Plans, it is reported, have been prepared by this company for the construction of a 15-mile branch from a point three miles north of Baxter Springs, Kan., to Miami, Okla. E. G. Jonah, St. Louis, Mo., is Ch. Engr.

Texas—Sulphur Springs, Quitman & Great Northern R.R.—This company has been organized for the purpose of constructing a railway from Sulphur Springs to Quitman, Tex., about 35 miles. The principal office of the company is at Sulphur Springs, Tex.

Oklahoma—St. Louis & San Francisco Ry.—See item under Kansas.

Oregon—Valley & Silez R.R.—This company will award contracts some time in May for the construction of its proposed ten-mile extension from Independence to Newport, Ore. R. L. Donald, Northwestern Bank Bldg., Portland, Ore., is Mgr.

California—Tidewater Southern Ry.—It is reported that this company will construct a railway from Turlock to Fresno, Calif., about 97 miles. J. H. Wallace, Stockton, Calif., is Ch. Engr.

California—Atchison, Topeka & Santa Fé Ry.—According to press reports this company is receiving bids for the construction of an extension to its line from Exeter to Lindsay, Calif., about ten miles. F. M. Bisbee, Amarillo, Tex., is Ch. Engr. Western Lines.

ELECTRIC RAILWAYS

New Britain, Conn.—The New Britain St. Ry. Co. is being organized to construct an electric railway to connect New Britain and Hartford and New Britain and Plainville. Mortimer H. Camp, New Britain, is interested.

Trenton, N. J.—The Trenton & Mercer County Traction Corporation contemplates an extension of the Warren and Fair St. line in Trenton to make a belt line to parallel the municipal docks. William H. Hitchcock, Trenton, is Gen. Mgr.

Jacksonville, Fla.—The Jacksonville-Middleburg Electric Ry. Co. is making preliminary arrangements for the construction of its line from Jacksonville to Middleburg, about 24 miles. The first ten miles have been financed. A. W. Mackinlay is Gen. Mgr.

Birmingham, Ala.—Surveys have been made and work will soon be started by the Pratt Consolidated Coal & Iron Co. for the construction of an electric railway from its Maxime mine to a point near the Warrior River.

Chicago, Ill.—The Chicago & Northern Interurban Ry. Co. has applied to the State Public Utilities Commission for permission to construct an electric railway from the city limits of Chicago to Wheeling, about 12 miles. Jordan E. Van Natta, Chicago, is Atty. for the company.

Pekin, Ill.—The Pekin & St. Petersburg Interurban Ry. Co. will soon award contracts for the reconstruction and extension of its lines in Pekin. G. W. McIntire, Pekin, is Gen. Mgr., Pur. Agt. and Ch. Engr.

Peoria, Ill.—The Peoria & Chillicothe Electric Ry. Co. will start work about Mar. 15 on the construction of its proposed electric railway to connect Peoria and Chillicothe, Ill.

Peoria, Ill.—The Chicago, Peoria & Quincy Traction Co. will soon start preliminary surveys for the construction of its proposed electric railway from Peoria to Quincy. J. L. Soebbing is Pres.

Quincy, Ill.—The Quincy Ry. Co. is considering plans for the reconstruction and improvement of its lines in Quincy. W. L. Peters, Quincy, is Ch. Engr.

Elkhart Lake, Wis.—Plans are being considered by the Sheboygan-Elkhart Lake Interurban Co. for the construction of an extension from Elkhart Lake to Chilton. Edward Hammett, Sheboygan, is Mgr.

Milwaukee, Wis.—The City Council has been petitioned by the residents on Green Bay Ave. and on 27th St. for an extension of the electric railway on the Third and 27th St. lines to the city limits of Milwaukee. Under the blanket franchise the Milwaukee Electric Ry. & Light Co. is obliged to develop its tracks as directed by the City Council.

Argenta, Ark.—The Argenta Ry. Co. contemplates the extension of its Washington Ave. line to the Rock Island station. E. W. Jackson, Little Rock, Ark., is Vice-Pres. and Ch. Engr.

Calico Rock, Ark.—J. M. Myers, Calico Rock, is interested in the construction of an electric railway from Calico Rock to Hoxie. Work will be started as soon as financial arrangements can be made.

Dallas, Tex.—The Dallas Southwestern Traction Co. is preparing to start work soon on the extension of its line from Dallas to Brownwood via Mansfield, Venus, Alvarado, Cleburne, Glen Rose, Hico and other towns. Eventually it will be extended west from Brownwood to San Angelo. E. P. Turner is Pres., S. P. Cockran, Vice-Pres., George Williams, Secy. and Treas., and John T. Witt, Ch. Engr.

McKinney, Tex.—The McKinney, Bonham & Paris Interurban Ry. Co. is making preliminary arrangements for the construction of its proposed electric railway to connect Bonham, McKinney, Paris and Blue Ridge. L. A. Scott is Pres.

Tulsa, Okla.—The Oklahoma Union Traction Co. is preparing plans for the general improvement of its lines in Tulsa. A. A. Small, Tulsa, is Pres. and Gen. Mgr.

Lewiston, Idaho—The Lewiston-Clarkston Transit Co. is preparing to start work about Mar. 15 on the construction of its proposed electric railway from Lewiston to Clarkston. W. N. Nortz, Devil's Lake, N. D., and R. C. Dahlhjelm, Lewiston, are interested. Noted Oct. 29 and Nov. 26, 1914.

Sausalito, Calif.—Bids will soon be received for the construction of the proposed incline railway from Sausalito to the summit of the heights, 1000 ft. above the city. A. E. Roberts, Sausalito, is Ch. Engr. Noted Oct. 22 and Jan. 7.

Stockton, Calif.—The Central California Traction Co. has applied to the City Council for a franchise to extend its lines on North Sacramento St. in Stockton. C. H. Robertson, Stockton, is Gen. Mgr.

London, Ont.—Plans are being considered by the London St. Ry. Co. to extend, double-track and install switches on some of its lines in London. C. B. King, London, is Gen. Mgr. and Pur. Agt.

Toronto, Ont.—Representatives of Whitechurch Township have petitioned the Hydro-Electric Power Commission of Ontario to survey and prepare estimates of constructing a radial railway from Whitechurch to Georgian Bay.

LIGHT, HEAT AND POWER

+Boston, Mass.—The contract for heating and ventilating equipment in the new building of the Consumptives' Hospital on River St., Dorchester District, was awarded to PIERCE & COX at $7897, $7215 and $7247 for Items 1, 2 and 3 respectively. Edward F. McSweeney is Chn. of the Com.

+Providence, R. I.—The following contracts have been awarded in connection with the remodeling of the Dexter Insane Asylum; Plumbing, to the GUARANTEE PLUMBING CO. at $5900; heating and ventilating, to the ALLEN FIRE DEPARTMENT SUPPLY CO. at $5614; electrical work to SCANNEVIN & POTTER, Providence, at $1450.

New London, Conn.—Bids are being received by Dudley St. Clair Donnelly, Arch., 98 State St., for the heating, plumbing and mechanical equipment of the Y. M. C. A. building, now in course of construction on Meridian St.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 10:30 a.m., Mar. 11, by George W. Wingate, Pres. of Pub. Recreation Comn., Municipal Bldg., Borough of Manhattan, for electrical work and gas piping, with all incidental work connected therewith, for the proposed Betsey Head Memorial Playground and Recreation Center located at Brownsville, Borough of Brooklyn.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 10:30 a.m., Mar. 8, by Robert Adamson, Fire Comr., Municipal Bldg., for a new steam-heating plant for the quarters of Engine Co. 15, 269 Henry St., Borough of Manhattan; for engine-heating systems at quarters of Hook and Ladder Co. 2, Lexington Ave. and 50th St., Manhattan, and Hook and Ladder Co. 146, 79 Richardson St., Brooklyn, and for additions and alterations to the heating systems at quarters of Engine Co. Nos. 25 and 54 and Hook and Ladder Co. Nos. 17, 28 and 35.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until 10:30 a.m., Mar. 11, by John A. Kingsbury, Comr. of Pub. Charities, Room 1091, Municipal Bldg., Borough of Manhattan, for installing plumbing and water-supply, and heating apparatus in a new cottage for the agel and infirm at the New York City Farm Colony, Borough of Richmond. Charles B. Meyers, 1 Union Sq. W., New York, is Arch.

New York, N. Y.—(Borough of Queens)—Bids will be received until Mar. 8 by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., Borough of Manhattan, for electrical work in Public School 85, Debevoise Ave., Long Island City, Borough of Queens.

+Allentown, Penn.—The Board of Education has awarded contracts for equipment in the new High School as follows: Heating, power and ventilating plant to J. H. COONEY & CO., Harrisburg, at $58,787; complete electrical work to the WATSON-FLAGG ENGINEERING CO., 27 Thames St., New York, at $37,580; plumbing to WILLIAM H. TAYLOR & CO., Allentown, at $21,266. Bids were opened Feb. 10. Noted Jan. 28.

Baltimore, Md.—It is reported that plans are being considered for the installation of a new turbine in the high-pressure power station on South St., for the purpose of supplying additional power for lighting the city hall and court house, and for operating the elevators in the city hall. The estimated cost of the engine is $15,000.

Dayton, Va.—See item under "Water Supply—Irrigation."

South Boston, Va.—It is reported that the South Boston Electric Light & Power Co. plans improvements to its plant estimated to cost $10,000. J. A. Mebane is Cont. Agt., Mgr. and Supt.

Wilson, N. C.—The Board of Aldermen has asked the State Legislature for permission to issue $80,000 in bonds, the proceeds to be used for reconstructing the municipal electric-light plant. R. J. Grantham is Supt. of the plant.

Cordele, Ga.—The City Council is considering a special election for the purpose of voting on the question of issuing bonds for the construction of a municipal electric-light plant.

Miami, Fla.—Press reports state that the Miami Gas Co. has decided to extend its mains into a number of the suburbs of the city at a cost of about $100,000. The same amount will be spent in enlarging the plant and making other improvements.

Guntersville, Ala.—(Official) — The town of Guntersville contemplates the installation of an electric-lighting system within the next few months, and will consider offers for putting in the lights. D. Isbell is Mayor.

Hattiesburg, Miss.—The Board of City Commissioners is considering the installation of a municipal electric-light plant, although the city's contract with the Hattiesburg Traction Co. for furnishing light does not expire until April, 1917. Tentative estimates show that a plant of sufficient size can be installed at a cost of from $30,000 to $35,000. A. Fairley is City Clk.

Dayton, Ohio—The lowest bid received by the Board of Education for the heating and ventilating equipment of the new Dayton View School was that of M. J. Gibbon, Dayton, at $27,307. The lowest bid for plumbing and gasfitting was that of the Case, Ringelspaugh, Wilson Co., Dayton, at $10,626.

Ripley, Ohio—Bonds to the amount of $12,000 have been sold, the proceeds of which will be used for the installation of a municipal electric-light plant.

Toledo, Ohio—Bids were opened Feb. 14 by the Board of Education for the construction of the Detroit Ave. School. The lowest bids for several contracts follow: Plumbing, Eagan Bros. Co., $19,058; boilers, McNaull Boiler Mfg. Co., $5700; heating, Eagan Bros. Co., $15,351; electric wiring, R. H. Winters Electric Co., $2275; temperature regulation, Johnson Service Co., Milwaukee, Wis., $3400.

Ft. Wayne, Ind.—The Board of Works will soon advertise for bids for an 800-hp. high-pressure boiler to replace two 300-hp. boilers in the municipal electric-light plant. John Wessel, Jr., is Secy. and Mgr. of the plant.

Croswell, Mich.—The City Council has passed an ordinance for 24-hr. service from the municipal electric-light plant. J. Stark, Detroit, has been engaged to oversee the installation of the necessary additional equipment. G. C. Hanson, Croswell, is Mgr. and Supt. of the municipal plant.

Detroit, Mich.—The Ford Motor Co. is making improvements at its power plant at the Detroit factory, including the installation of four direct-current generators, 3800 kw. each, 230 volts.

Engadine, Mich.—The Edwin Bell Co., manufacturer of kegs, staves, etc., contemplates the installation of a power plant in its factory. The plant will have sufficient output to furnish lights for the streets and residences of the village.

Portage, Mich.—The Town Board has decided to submit to the voters the question of a bond issue of $100,000 to be used for the construction of a municipal electric-light plant. It has not yet been decided whether the matter will come up at the April election, or later at a special election.

Brookston, Minn.—The City Council has granted a franchise to L. P. Runkle for the installation and operation of an electric-light and power plant.

Windom, Minn.—(Official)—Bids will be received until 7 p.m., Mar. 16, by W. M. Hale, Village Recdr., for the installation of a municipal electric-light plant and distribution system for the village. Earle D. Jackson, St. Paul, Minn., is Consult. Engr.

Gridley, Kan.—Plans are under consideration for the installation of an electric-lighting system in Gridley. It is reported that energy to operate it will be obtained from the Burlington Light, Power & Mfg. Co., Burlington, Kan.

Osawatomie, Kan.—It is reported that bids will soon be asked for remodeling the municipal electric-light plant. B. L. Prier is Supt.

Salina, Kan.—The Salina Light, Power & Gas Co. is reported to be considering improvements to its plant during the year, at an estimated cost of $40,000. Tentative plans include an addition to the power station, new boilers and generators. W. E. McFadden, Salina, is Gen. Mgr.

✚Wellington, Kan.—The City Commissioners have awarded the contract for equipment for the new municipal electric-light plant to the WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburgh, Penn., at $30,700. Noted Dec. 3.

Adams, Neb.—(Official)—Bids will be received until 8 p.m., Mar. 12, by Charles Putney, Village Clk., for one oil engine, one generator, poles and material for the construction of an electric-light plant. Estimated cost, $4000. Johnson & Johnson, Falls City, Neb., is Engr.-in-Charge.

Deepwater, Mo.—(Official)—Bids will be received until Mar. 16 by the City Council for the construction of a municipal electric-light plant and for furnishing one 50-hp. oil engine. J. P. Davis & Co., Windsor, Mo., is Consult. Engr. Noted Feb. 25.

Marshall, Mo.—For the third time within 15 months, the citizens, at an election held Feb. 23, defeated the question of issuing bonds for $70,000 to be used in constructing a municipal electric-light plant.

Cabot, Ark.—The Cabot Light & Power Co. has been organized for the purpose of constructing an electric-light plant in Cabot. M. Young is Pres., D. Jenkins, Vice-Pres. and J. H. Hagan, Secy.

Gurdon, Ark.—(Official)—See item under "Water Supply—Irrigation."

Houston, Tex.—It is reported that the City Commissioners have decided to construct two municipal power plants. The first one, for which bids will shortly be asked, will provide power for lighting several bridges and the municipal buildings, and for operating some of the machinery of the waterworks system. The second and larger plant will be located on the ship channel, and is designed to operate the wharf machinery on the municipal piers. The two plants will cost approximately $75,000. E. E. Sands is City Engr.

Tombstone, Ariz.—The City Council is preparing to secure estimates of the probable cost of establishing a municipal electric-light plant in Tombstone.

Albion, Wash.—It is reported that the City Council has appointed a special committee to investigate the feasibility of installing a municipal electric-light plant. Charles Huff is a member of the Com.

BRIDGES

Butler, Penn.—(Official)—Bids will be received until noon, Mar. 9, by the Commissioners of Butler County for the construction of five county bridges, one each in Worth, Clay, Adams, Middlesex and Jefferson Townships. W. B. Scott is Clk, of Comrs.

Harrisburg, Penn.—Bids will be received until Mar. 17 for the construction of a double-track railway bridge over the Susquehanna River at Harrisburg for the Cumberland Valley R.R. It will be about 4000 ft. long, and will have 46 spans. The estimated cost is $750,000. Thomas B. Kennedy, Chambersburg, Penn., is Engr. of the Cumberland Valley R.R. Noted Jan. 1 and 15, Apr. 16, 1914; Jan. 21 and Feb. 4, 1915.

✚★Philadelphia, Penn.—(Official)—The Department of Public Works opened bids Feb. 25 for the construction of a bridge to carry Broad St. over the railway tracks, South Philadelphia track extension. All bidders of Philadelphia, unless otherwise noted. The bids follow: MacArthur Bros. Co. and Mason & Hanger Co., 11 Pine St., New York, N. Y., $306,000; Charles P. Bower, Wayne and Roberts Ave., $339,000; Robert Grace Contracting Co., 514 Smithfield St., Pittsburgh, $293,800; American Paving & Construction Co., 211 South Ninth St., $314,500; M. & J. B. McHugh, 714 Commercial Trust Bldg., $339,000; Snare & Triest Co., 233 Broadway, New York, $258,800; Carl R. Camp, Crozer Bldg., $292,800; E. E. Smith Contracting Co., 101 Park Ave., New York, $355,000; William H. Millard, 12th St. and City Line, $255,900; A. L. Guidone & Co., 131 East 23d St., New York, $357,500; McHarg-Barton Co., 171 Madison Ave., New York, $287,400; Francis J. Boas, 201 North Broad St., $322,000; Thomas F. Reilly, 50th St. and City Ave., $287,157; Kelley-McFeeley Co., 432 Market St., Camden, N. J., $301,900; ARTHUR McMULLEN CO., 149 Broadway, New York, $237,600 (awarded contract); Edwin H. Vare, 1120 Race St., $250,000. Noted Feb. 11.

Pottstown, Penn.—Plans are being discussed for the construction of a bridge over the Schuylkill River to replace the present structure which is reported to be in a dangerous condition. Montgomery County will be asked to pay a part of the cost of building the bridge.

West Chester, Penn.—Bids will be received until 11 a.m., Mar. 8, by the Commissioners of Chester County for repairs to two bridges over Brandywine Creek south of Chadds Ford.

York, Penn.—(Official)—Bids will be received until 10 a.m., Mar. 18, by the Board of Commissioners and the Controller of York County for the construction of a reinforced-concrete or steel bridge over the south branch of Muddy Creek on the road between Muddy Creek and Gatchelville, between East Hopewell and Fawn Townships. The bridge will be about 55 ft. long, with a 14-ft. roadway. F. S. Bartenschlager is County Controller.

✚Lawrenceville, Va.—(Official)—The Board of Supervisors of Brunswick County has awarded the contract for the construction of a steel bridge over the Meherrin River, about two miles from Lawrenceville, to the ROANOKE BRIDGE & IRON CO., Roanoke, Va. Noted Feb. 11.

Suffolk, Va.—The City Council and the Commissioners of Nansemond County contemplate the construction of a steel bridge across the Nansemond River.

✚Germanton, N. C.—The Board of Commissioners of Stokes County, Danbury, has awarded the contract for the construction of a bridge over Buffalo Creek at Germanton, to the VIRGINIA BRIDGE & IRON CO., Roanoke, Va., at $5423. The bridge will be about 280 ft. long.

Atlanta, Ga.—The City Council has decided to repair the bridge and tracks of the Whitehall St. Viaduct at a cost of approximately $8150. Samuel Freeman is Chn. of the Bridge Comn.

Jacksonville, Fla.—The Board of Commissioners of Duval County will submit to the voters the question of a bond issue for the construction of three reinforced-concrete bridges as follows: A bridge over Trout Creek at Main St.; a bridge over McGirts Creek at Ortega, and a bridge over Six-Mile Creek on the Moncrief Rd. John H. Patterson is Chn. of Bd. of Comrs.

Jacksonville, Fla.—(Official)—Bids will be received until Mar. 8 by Frank Brown, Clk. of Comrs. of Duval County, for repairing the Trout Creek Bridge on Fernandina Rd. at Panama. E. A. Ricker is Chn. Bd. of County Comrs.

Jasper, Ala.—(Official)—Bids will be received until Mar. 15 by Charles M. Sartain, Chn. Bd. of Comrs. of Walker County, for the construction of four steel bridges over the Black Warrior River at Cordova, Sipsey Fork, Mulberry and Town Creek.

Lake Charles, La.—(Official)—In the issue of Feb. 18, an item was published under Orange, Tex., announcing the award of the contract for a bridge over the Intercoastal Canal to Perry & Bonner, Lake Charles. This improvement should be credited to Calcasieu Parish, La., as a part of the work done under the $900,000 bond issue for bridges and highways. The contract was awarded to the firm in question last summer for two bridges, located 12 miles east of Orange, Tex. The first bridge was completed last October, and piers and abutments for the second are finished, and a part of the steel erected.

+**Louisville, Ky.**—The Board of Public Works has awarded the contract for the construction of a concrete culvert over Drescher St. to the L. W. HANCOCK CO., Louisville, at approximately $5000. Noted Feb. 18.

Jackson, Mich.—The City Council contemplates the construction of a reinforced-concrete or steel bridge over the Grand River at Mechanic St. The estimated cost is $10,000. A. W. D. Hall is City Engr.

Chicago, Ill.—It is reported that the Chicago & Northwestern Ry. is making preliminary surveys at Sheboygan, Oshkosh, Manitowoc and Green Bay, Wis., for replacing its stationary and draw bridges at those points with new structures. The total cost is estimated at $200,000. W. H. Finley, Chicago, is Ch. Engr. of the Chicago & Northwestern Ry.

Dixon, Ill.—Press reports state that, at the spring election, the citizens will be asked to vote on the question of a bond issue for the construction of a new bridge over the Rock River at Peoria Ave. Tentative plans call for a reinforced-concrete structure, 55 ft. wide. The estimated cost is $80,000. H. L. Fordham is Chn. of a special committee appointed to promote the plan.

Murphysboro, Ill.—Plans have been completed by William W. Marr, County Engr., for the construction of the Rattlesnake Ferry Bridge, between Tower and Pomona Townships, Jackson County. It will have one 180-ft. steel span, reinforced-concrete piers and abutments, creosote block floor. The estimated cost is $10,000. Thomas G. Duncan is County Supt. of Highways.

Green Bay, Wis.—(Official)—We are advised by A. Brauns, City Engr., that the question of a bond issue, to be used for the construction of a bascule bridge across the East River at Main St., will be submitted to the voters at the April election. If the issue carries, bids will be asked at once. Noted Feb. 11.

Madison, Wis.—The Wisconsin Railroad Commission has ordered the Chicago, Milwaukee & St. Paul Ry. to build a reinforced-concrete bridge over its Sauk Rd. crossing, Mendota Beach, near Madison. The estimated cost is $15,000. The bridge is to be completed in nine months. C. F. Loweth, Chicago, Ill., is Ch. Engr. of the railway company.

+**Ft. Madison, Iowa**—The Supervisors of Lee County, Fort Madison, and Des Moines County, Burlington, have awarded the contract for furnishing lumber to repair three bridges over the Skunk River, between the two counties, to FRANK SALLEN, Ft. Madison, at $35 per M ft.

+**Knoxville, Iowa**—(Official)—The Board of Supervisors of Marion County has awarded the following contracts for bridge construction: L. B. CHILD, Nevada, Iowa, five truss spans, $24,200; 21 culverts, $7758; THOR CONSTRUCTION CO., Cedar Falls, Iowa, four beam spans, $5240, 28 culverts, $10,760; WESTERN BRIDGE & CONSTRUCTION CO., Omaha, Neb., 21 culverts, $8800. W. O. Price is County Engr. Noted Feb. 4.

Primghar, Iowa—The Board of Supervisors of O'Brien County has passed a resolution of necessity for the construction of 25 bridges and culverts at an estimated total cost of $17,471.

Waterloo, Iowa—Bids for the construction of 14 county bridges during 1915 were received by the Supervisors of Blackhawk County from the following: H. S. Bougon, Waterloo, $18,982; Waterloo Construction Co., $21,990; Iowa Bridge Co., Des Moines, $22,300; Western Bridge & Construction Co., Harrisonville, Mo., $22,90; Boone Construction Co., Boone, Iowa, $27,000.

Caledonia, Minn.—(Official)—Bids will be received until 1 p.m., Mar. 16, by E. N. Newhouse, Audr. of Houston County, for building state bridges in the Towns of Winnebago, Brownsville, Houston and Mayville, Houston County.

East Grand Forks, Minn.—The City Council opened bids Feb. 23 for building an approach to the De Mers Ave. Bridge and for repairing the bridge, made necessary by a recent fire. The following are the bids: Jardine & Anderson, Fargo, N. D., $13,771; M. A. Adams & Co., Minneapolis, $14,397; Great Northern Bridge Co., Minneapolis, $13,878; Iowa Bridge Co., Minneapolis, $14,000.

+**Mora, Minn.**—The contract for State Bridges Nos. 1607, 1608 and 1632 has been awarded to the WAUSAU IRON WORKS, Wausau, Wis., at $10,759. Other bidders were: M. A. Adams & Co., Minneapolis, $10,994; Minneapolis Bridge Co., Minneapolis, $11,900; Hewitt Bridge & Steel Co., Minneapolis, $11,950; Hennepin Bridge Co., Minneapolis, $11,054; Minneapolis Steel & Machinery Co., Minneapolis, $11,395.

Owatonna, Minn.—It is reported that bids will be received until Mar. 9 by M. J. Parcher, Audr. of Steele County, for the construction of a reinforced-concrete bridge, Summit Township. The superstructure will have three 14-ft. spans and an 18-ft. roadway.

+**Liberal, Kan.**—(Official)—The Board of Commissioners of Seward County has awarded the contract for the construction of two wooden pile bridges over the Cimarron River to the WESTERN BRIDGE CO., Harrisonville, Mo. Seven other bids were received. A. K. Stoufer is County Clk. Noted Feb. 11.

Red Cloud, Neb.—Bids will be received until noon, Mar. 23, by J. J. Garber, County Clk. of Webster County, for culvert and bridge construction during 1915, and for furnishing steel I-beams and reinforcing rods.

+**Vermilion, S. D.**—The Board of Commissioners of Clay County has awarded the contract for the construction of wood and steel bridges during 1915 to the FEDERAL BRIDGE CO., Des Moines, Iowa. The contract for all concrete bridges was awarded to WARD & WEIGHTON, Sioux City, Iowa.

★**Billings, Mont.**—(Official)—Bids will be received until noon, Mar. 20, by the Board of Commissioners of Yellowstone County, for the construction of two highway bridges over the Yellowstone River, one near the mouth of Pompey's Pillar Creek, and the other near the mouth of Duck Creek. F. E. Williams is County Clk. Noted Oct. 15 and 29, Nov. 19, Dec. 17, 1914 and Feb. 11, 1915.

Texarkana, Ark.—Press reports state that plans are being considered for the construction of a steel bridge across the Red River near Fulton to connect Miller and Hempstead Counties. If built, the bridge will accommodate railway traffic, and it is hoped the railways entering Texarkana wil pay a part of the cost of construction.

Floresville, Tex.—It is reported that the Commissioners of Wilson County will receive bids early in March for the construction of two bridges.

Houston, Tex.—The lowest bid received by the City Council for the construction of the Milam St. Bridge was that of J. H. Richardson, at $37,397. The bids were referred to the City Engr for tabulation. Bids were opened Feb. 10. Noted Feb. 4.

Blackwell, Okla.—Press reports state that the Atchison, Topeka & Santa Fé Ry. is preparing to replace its wooden trestle just north of Blackwell with a new steel bridge.

Oklahoma, Okla.—(Official)—Bids will be received until Mar. 8 by M. Cornelius, Clk. of Oklahoma County, for the construction of a concrete bridge.

Bellingham, Wash.—(Official)—Bids will be received until 2 p.m., Mar. 18, by W. D. Wallace, Audr. of Whatcom County, for the construction of a 380-ft. steel bridge on reinforced-concrete piers over the Nooksack River on the Guide Meridian Rd. C. M. Adams is County Engr.

Bellingham, Wash.—(Official)—We are advised by Charles Lindbery, City Engr., that the construction of new bridges at Grant, Sylvan, Prospect, James and Elk St. has been postponed for another year, on account of lack of funds. The bridges, if of concrete, will cost about $100,000, or $30,000, if of timber. Noted Dec. 10 and 24, 1914.

Tumwater, Wash.—The Town Council and the Board of Commissioners of Thurston County, Olympia, will build a reinforced-concrete bridge on the Pacific Highway over Des Chutes River. The new bridge will replace the present structure which has been declared unsafe. The estimated cost is $10,000.

Portland, Ore.—The lowest bid received by the Board of Commissioners of Multnomah County for the construction of three reinforced-concrete bridges on the Columbia Highway between Warrendale and Bonneville was that of the Ferch, Goss, Scott, Hicks Co., Seattle, at $36,477. Noted Jan. 14 and Feb. 4.

+**Portland, Ore.**—(Official)—The Bridge Department of the State Highway Commission has awarded contracts for the construction of three reinforced-concrete bridges on the Columbia Highway, Multnomah County, as follows: Bridges Nos. 9 and 11, to ROBERT WAKEFIELD, Portland, at $16,904 and $3979 respectively; Bridge No. 10, A. GUTHRIE & CO., Portland, $14,364. C. H. Purcell is Bridge Engr. of the Comn. Noted Jan. 14 and Feb. 4.

Vale, Ore.—It is reported that the Commissioners of Malheur County will shortly advertise the sale of bonds for $30,000, the proceeds of which will be used for the construction of the Big Bend Bridge over the Snake River.

Riverside, Calif.—It is reported that the City Trustees have decided to build a reinforced-concrete bridge over Tequesquite Arroyo. The structure will be 70 ft. high, and is estimated to cost from $50,000 to $60,000. A. P. Campbell is City Engr.

+**San Gabriel, Calif.**—The City Trustees have awarded a contract for the construction of a reinforced-concrete culvert with fill and abutment walls to E. J. DENMAN, 1614 West 47th St., Los Angeles, at $4295.

Moncton, N. B.—(Official)—Bids will be received until noon, Mar. 31, by the Department of Public Works, Fredericton, for the construction of the substructure, superstructure and approaches of a bridge over the Petitcodiac River between the City of Moncton, Westmoreland County, and Parish of Coverdale, Albert County, John Morrissy is Minister of Pub. Wks.

Caledonia, Ont.—Bids will be received until Mar. 6 by Harry Buckner, Chn. of Rds. for the County of Haldimand, for the construction of a foot path, 600 ft. long and four ft. wide, on each side of the Caledonia Bridge over the Grand River.

WATER SUPPLY—IRRIGATION

Boston, Mass.—Bids will be received until Mar. 5 by the Public Works Department for assembling 725 hydrants and valves. L. K. Rourke is Comr.

Warren, Mass.—A bill will be passed upon by the State Legislature for the construction of a water system. The estimated cost is $75,000. Noted Nov. 5.

New York, N. Y.—(Official)—Bids will be received until Mar. 23 by the Board of Water Supply, Municipal Bldg., for work under Contract 123. The work includes the construction of six superstructures for Kensico influent, upper and lower effluent, screen chambers and Kensico siphon chambers.

New York, N. Y.—(Boroughs of the Bronx and Manhattan)—(Official)—Bids will be received until 2 p.m., Mar. 11, by the Department of Water Supply, Gas and Electricity for constructing a 12-in. water main across the East River from East 140th St. to North Brother Island and for laying water mains in East 140th St. and on North Brother Island. William Williams is Comr.

New York, N. Y.—(Official)—Bids will be received until 11 a.m., Mar. 23, by the Board of Water Supply, Municipal Bldg., Borough of Manhattan, for constructing six concrete stone and brick buildings near the Kensico Reservoir, Mt. Pleasant. Charles Strauss is Pres. Bd. of Water-Supply.

New York, N. Y.—(Boroughs of the Bronx, Manhattan and Queens)—(Official)—Bids will be received until 2 p.m., Mar. 8, by the Department of Water Supply, Gas and Electricity for laying water mains in Southern Blvd., Bronx; laying water mains in Buckley, Goodrich, Marion, Meadow, Packard, Sanford, Trowbridge and 13th St., in Ditmars, Hunter, Pleasure, Skillman, Fourth, Seventh and 11th Ave., and in Weil Pl., Queens; in Grosvenor, High, Miller, First, Seventh, 12th, North 15th, North 16th and 24th St., in Beverly, Hillside, Summit and Taylor Ave., in Arleight, Fresh Meadow, Manor and Ridge Rd., in Elsie and Franklin Pl. and in Lawrence Blvd., Queens; for furnishing, and storing c.-i. pipe, specials and valve box castings, valves, and double nozzle fire hydrants.

Asbury Park, N. J.—Bids will soon be received for the construction of 12-in. water mains.

★Atlantic City, N. J.—(Official)—Bids will be received Mar. 11 by the Board of Commissioners for one 18,000,000-gal. turbo-centrifugal pump at the Absecon pumping station. Harry Bacharach is Dir. of Parks and Pub. Property.

✚Hawthorne, N. J.—(Official)—The contract has been awarded to GEORGE B. RICHARDSON, Ridgewood, at $41,400 for laying water mains and building reservoir. Noted Jan. 21 and Feb. 25.

Newark, N. J.—All bids received Feb. 24 by the Board of Chosen Freeholders for constructing an additional water-supply at the Overbrook Hospital have been rejected. The low bidder was James F. Kelly, East Orange, at $17,888. Noted Dec. 3 and Feb. 18.

Herndon, Penn.—The construction of a water system is under consideration by the Borough Council.

Scottdale, Penn.—(Official) — Chester & Fleming, Pittsburgh, is preparing an appraisal of the water system to be submitted to the Borough officials.

✚★Kensington, Md.—(Official)—The contract for constructing a water system has been awarded to the CANTRELL CONSTRUCTION CO., Philadelphia, Penn., at $40,000. E. W. Moore is Mayor. Noted July 9 and Dec. 17.

Dayton, Va.—Bonds for $24,500 have been voted by the citizens. The proceeds will be used for the construction of water and sewer systems and an electric-light plant.

Union, S. C.—Bonds for $25,000 have been voted by the citizens, the proceeds of which will be for the extension of the water mains, constructing a pumping station and for erecting a 6600-volt, 3-phase transmission electric line. R. A. Easterling is in charge. Noted Feb. 4.

Alma, Ga.—An election will be held to vote on the question of issuing $15,000 in bonds, the proceeds of which will be used to construct a water system.

Hawkinsville, Ga.—Bonds for $20,000 have been voted by the citizens, the proceeds of which will be used for the extension of the water and sewer systems. G. W. Jordan is Mayor. Noted Feb. 4.

De Ridder, La.—Bonds for $24,000 have been voted by the citizens, the proceeds of which will be used for the purchase and improvement of the water system.

Maryville, Tenn.—An election will be held Mar. 20 to vote on the question of issuing $55,000 in bonds, the proceeds of which will be used for the construction of a water system. Noted Apr. 30, 1914.

Covington, Ky.—Bonds will soon be sold, the proceeds of which will be used for the construction of the emergency water mains across the Licking River. H. G. Meiners is City Engr. Noted Nov. 19 and Dec. 24.

Akron, Ohio—Bids will be received until Mar. 5 by C. P. Barker, Dir. of Pub. Ser., for 2500 tons 4-in. to 12-in. c.-i. pipe and 61 tons of specials.

Amsterdam, Ohio—The citizens at a recent election voted against the question of issuing bonds for the construction of a water system.

✚Canton, Ohio—The contract has been awarded to the ROBINSON FIRE APPARATUS MFG. CO., St. Louis, Mo., at $8970 for a triple combination motor pumping engine. Noted Nov. 19.

Cleveland, Ohio—(Official)—Bids will be received until noon, Mar. 12, by the Commissioner of Purchases and Supplies for valves, c.-i. pipe, specials and miscellaneous castings for the water department.

★Cleveland, Ohio—(Official)—Bids will be received until noon, Mar. 17, by the Commissioner of Purchases and Supplies for constructing a filtered water reservoir. For details see advertisement under "Contracts To Be Let."

East Liverpool, Ohio—(Official)—We have been advised that plans will be completed about May 1 for the construction of a 6,000,000-gal. mechanical filtration plant, a new pumping station and additional force mains. The estimated cost is $334,000. Chester & Fleming, Pittsburgh, Penn., is Engr. Noted Feb. 11 and 18.

✚Middletown, Ohio—The contract for installing a 150-hp. steel header boiler at the city water-works has been awarded to the BABCOCK & WILCOX CO., New York, N. Y., at $4596.

Napoleon, Ohio—William G. Clark, Consult. Engr., Toledo, has been retained by the Board of Public Affairs to prepare plans for the installation of a filtration plant. Noted Dec. 24 and Feb. 18.

Port Clinton, Ohio—An ordinance has been passed by the Council for rebuilding the pumps at the water-works pumping station. The estimated cost is $10,000.

Toledo, Ohio—(Official)—The time for receiving bids for constructing and equipping a high-pressure fire service pumping station has been extended to noon, Mar. 18. A. W. Boardman is Dir. of Pub. Ser. Noted Feb. 25.

Westerville, Ohio—An election will be held Mar. 22 to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for the construction of a water system.

✚Michigan City, Ind.—The contract has been awarded to NELSON BROS. & CO., Muskegon, Mich., at $16,000 for laying 2400 ft. of water mains. Noted June 4 and July 2, 1914, and Jan. 28, 1915.

New Albany, Ind.—The Indiana Public Service Commission has ordered the New Albany Water Co. to install a filtration plant.

Aurora, Ill.—An election will be held in April to vote on the question of issuing bonds for $75,000, the proceeds to be used for the improvement of the water system.

Franklin Park, Ill.—Bids are being received, according to press reports, for driving a 1600-ft. artesian well. H. L. Emerson, 1118 Chamber of Commerce Bldg., Chicago, is Consult. Engr.

Paris, Ill.—Bids will be received until Mar. 15 by J. C. Riedel, City Clk., for the purchase of $90,000 in bonds, the proceeds of which will be used for the construction of a reservoir and filtration plant. Fleming & Babbitt, Urbana, is Engr. Noted Jan. 28 and Feb. 11.

Bloomington, Wis.—L. J. Wolf, St. Paul, Minn., has been retained by the Village Board to prepare plans for the construction of a water system. The estimated cost is $12,000, bonds for which have been voted. M. F. Woodhouse is Chn. of the Bldg. Comn. Noted Oct. 1.

Milwaukee, Wis.—Bids will be received until Mar. 15 by the Department of Public Works for the following materials: One 36-in. gate valve with 9-in. by-pass; 40 2-in., 15 3-in. and 25 4-in. special or tapping valves and 10 8-in., 10 12-in. and 2 16-in. gate valves. F. G. Simmons is Comr.

Milwaukee, Wis.—Bids will be received until 10:30 a.m., Mar. 10, by the Department of Public Works for laying 6-, 8-, 10- and 12-in. c.-i. water pipe. F. G. Simmons is Comr.

Mineral Point, Wis.—Henry Kleinhammer, Platteville, has been retained by the Common Council to prepare plans for the construction of a standpipe and pumping station for the municipal water system.

Wittenberg, Wis.—W. G. Kirchhoffer, Madison, has been retained by the Board of Trustees to prepare tentative plans for the construction of a water system for fire protection.

✚Council Bluffs, Iowa—The contract for constructing a 125,000-gal. tank on Charles St. has been awarded to the MEMPHIS STEEL & CONSTRUCTION CO., at $4435.

Dixon, Iowa—At a recent election the citizens voted in favor of installing a water system.

Burrton, Kan.—According to press reports bonds for $25,000 have been voted by the citizens. The proceeds will be used for the installation of a water system. Noted Dec. 24.

St. Paul, Neb.—At an election held Feb. 9 the citizens defeated the bond issue, the proceeds of which was to have been used for the construction of a water system. Noted Jan. 28.

Chillicothe, Mo.—Bids will be received until Mar. 9 by Fred W. Cornue, City Audr., for 600 tons of c.-i. pipe, 10,000 lb. of specials and valves. Harper & Stiles, Grand Ave., Temple, Kansas City, Mo., is Engr. Noted Feb. 11.

Gurdon, Ark.—(Official)—Bids will be received until Apr. 6 for the purchase of $102,000 in bonds, the proceeds of which will be used for the installation of water and sewer systems and electric-light plant. Albert C. Moore, Frisco Bldg., Joplin, Mo., is Engr. Noted Jan. 14.

Leslie, Ark.—The J. B. McCrary Co., Atlanta, Ga., according to press reports, has been retained to make surveys for the construction of water and sewer systems.

✚Barstow, Tex.—The contract for constructing a reservoir for irrigating in Ward County, District No. 1, has been awarded to the BAKER MFG. CO. Noted Oct. 22.

Buenavista, Tex.—The Interstate Realty Co. plans to enlarge its storage reservoir near Buenavista. A dam, estimated to cost $100,000, will be constructed.

Houston Heights, Tex.—The Houston Heights Light & Water Co. contemplates laying six miles of high-pressure water mains.

Langston, Okla.—An appropriation of $20,000 has been made for the installation of water and sewer systems at the Colored Agricultural and Normal School.

Phœnix, Ariz.—The Salt River Valley Water Users Association plans to build a dam across the Verde River at an estimated cost of $1,250,000.

View, Idaho—(Burley post office)—The water-rights in Spring Cañon, four miles above View, have been purchased by the View Development Co., View. A water system will be constructed. J. C. Burgess and J. D. Hoagland are interested.

Seattle, Wash.—The Board of Public Works has approved plans for the laying of water mains in Fifth Ave. W. The estimated cost is $9000. L. B. Youngs is Supt. of Water-Wks.

✚Seattle, Wash.—The contract for laying water mains in 31st Ave. S. has been awarded to L. R. ELLIS, Central Bldg., Seattle, at $10,175.

Ashland, Ore.—According to press reports Smith-Emery Co., San Francisco, Calif., has been retained by the city to prepare plans for the construction of an auxiliary water system. The estimated cost is $175,000. Noted Dec. 10.

Eugene, Ore.—Bids will be received about Mar. 15 by C. W. Gellen, Secy. Water Dept., for constructing a 2,500,000-gal. reservoir. F. W. Dietrich, Eugene, is Engr. Noted Oct. 8 and Feb. 11.

Portland, Ore.—Bids were received by J. R. Wood, Pur. Agt., for c.-i. pipe and specials as follows: United States Cast Iron Pipe & Foundry Co., Portland, all sizes, $128,415; American Cast Iron Co., Birmingham, Ala., 6 to 24-in., 59,685; Oregon Iron & Steel Co., Portland, 6 to 24-in., $60,185; R. D. Wood & Co., Philadelphia, Penn., 6- to 8-in., $137,480 and Crane & Co., Portland, all sizes, $151,750. Noted Feb. 11.

Reedley, Calif.—(Official)—Specifications are being prepared for a direct connected gas engine and pump (horizontal centrifugal) to deliver 750 gal. per min. against a head of 180 ft. for the water department. Charles M. Knauer is City Clk. Noted Dec. 17.

San Diego, Calif.—The City Council has authorized the installation of a 4-in. water main in Dwight St. W. R. Fay is Supt. of Water-Works.

San Fernando, Calif.—An election will be held Mar. 10 to vote on the question of issuing $73,000 in bonds. The proceeds will be used for the purchase of the holdings of the two water companies and for making extensions. I. B. Funk is City Engr. Noted Feb. 11.

San Francisco, Calif.—An election will be held Apr. 20 to vote on the question of issuing $34,500,000 in bonds. The proceeds will be used for the purchase and improvement of the Spring Valley Water Co. Noted Aug. 13.

Montreal, Que.—The installation of a mechanical filtration plant has been recommended by Hering & Fuller, Engr., New York, N. Y.

London, Ont.—According to press reports H. C. Glaubitz, Engr., is preparing plans for the installation of pumps and hydraulic equipment at the Springbank pumping station. The estimated cost is $30,000.

Paris, Ont.—The Town Council plans to build two purification plants. Each plant will have a capacity of 9,900,000-gal. per day and will be purified by ozone. Thomas McCash is Clk.

SEWERS

+Boston, Mass.—The contract for iron castings for the Public Works Department of Sewers has been awarded to the GIBBY FOUNDRY CO., at $178 per lb.

New York, N. Y.—(Borough of Brooklyn)—The low bidder for removing the temporary sewer from the Fourth Ave. subway between Hanson Pl. and Butler St. was the Norton & Gorman Co., at $15,198.

Oriskany, N. Y.—The Council has retained A. M. Scripture, New Hartford, to prepare plans for the construction of a sewer system and sewage-disposal plant.

Seneca Falls, N. Y.—Press reports state that the state may rebuild the trunk sewer along the bank of the Cayuga and Seneca Canal. F. M. Williams, Albany, is State Engr.

West Seneca, N. Y.—(Buffalo post office)—(Official)—Bids will be received until 3 p.m., Mar. 9, by C. L. Schudt, Supervisor, for the purchase of $25,380 in bonds, the proceeds of which will be used for the construction of sewers.

+Yonkers, N. Y.—The contract has been awarded to EDWARD J. BROGAN, at $13,325, for constructing a sewer in Worth St.

+Camden, N. J.—The contract for constructing a brick sewer in Kaighn Ave. has been awarded to AARON WARD, Camden.

+★Newark, N. J.—The contract for constructing Section 18, southerly portion, of the Main Intercepting Sewer, has been awarded by the Passaic Valley Sewerage Commission to C. A. HASKIN, 16 City Sq., Boston, Mass., at $187,392. Noted Feb. 11.

+Newark, N. J.—The contract for constructing Section 8, northerly portion, of the Main Intercepting Sewer, has been awarded by the Passaic Valley Sewerage Commission to MASON & HANGER, New York, N. Y., at $344,760. Noted Feb. 18.

Newark, N. J.—Bids will be received until 3:15 p.m., Mar. 11, by the Board of Street and Water Commissioners for constructing sewers in portions of Amsterdam and Clifford St.

Ventnor, N. J. (Atlantic City post office)—(Official)—Bids were received Feb. 15 for constructing a force main, intercepting sewer and alterations to the pumping station as follows: Cantrell Construction Co., $27,075; Atlantic Construction & Supply Co., $29,275; Sutton & Corson, $29,813; Kelley-McFeeley Co., $29,937; John W. Foster, $33,390; Contract B, Disposal Plant: L. H. Henry, Atlantic City, $20,515; E. L. Bader, $22,090;Atlantic Construction & Supply Co., $22,925; Suburban Engineering Co., $23,540; Kelley-McFeeley Co., $24,-180; John W. Foster, $31,110; Sutton & Corson, $24,186; Cantrell Construction Co., $31,999. Noted Feb. 4.

Parkesburg, Penn.—Bids will be received until 7:30 p.m., Mar. 8, by George W. Mullen, Secy., for constructing four miles of sanitary sewers and concrete treatment tanks. F. H. Shaw, Lancaster, is Consult. Engr. Noted Dec. 17 and Jan. 7.

+Philadelphia, Penn.—(Official)—Bids were received Feb. 23 for Contract No. 10, reconstructing sewers in Walnut St. from east of Third St. to west of Sixth St. as follows: (A) Car traffic diverted, (B) car traffic maintained: PEOPLES BROS., Commercial Trust Bldg., Philadelphia, (A) $129,799; (B) $151,593 (awarded contract); Emilio Pascuzzi, (A) $181,-040, (B) $210,540; Robert Lombardi (A) $157,000, (B) $195,000; Joseph Perna, (A) $144,000, (B) $160,000; Richard P. Bennis, (A) $219,500, (B) $247,000; and the Keystone State Construction Co., (A) $144,000, (B) $162,000.

Williamsport, Penn.—A resolution has been approved by the Council providing for sewerage work. John B. Otto is City Engr.

York, Penn.—Plans, prepared by George W. Fuller, Engr., New York, N. Y., for the construction of a sewage disposal plant, have been submitted to the City Council. The estimated cost is $99,470.

★Kensington, Md.—(Official)—See item under "Water Supply-Irrigation."

Dayton, Va.—See item under "Water Supply—Irrigation."

Parkersburg, W. Va.—Bids will be received until Mar. 11 by the city for the purchase of $200,000 in bonds, the proceeds of which will be used for the construction of sewers. Allen C. Murdoch is Mayor. Noted Jan. 28.

★Kinston, N. C.—(Official)—See item under "Streets and Roads."

Hawkinsville, Ga.—Bonds for $35,000 have been voted by the citizens. Part of the proceeds will be used for making extensions to the sewer system. Noted Feb. 4.

Okolona, Miss.—Bids will be received until Mar. 19 for the purchase of $58,000 in bonds, the proceeds of which will be used for the construction of a sewer system. Noted Jan. 28.

New Orleans, La.—Bids will be received until Apr. 19 by the Sewerage and Water Board for making additions to pumping plant, Station No. 2, and for building sluice gates for Station No. 2. Plans are on file at the office of the Board.

Sewanee, Tenn.—A report will be submitted by Hunter McDonald, Ch. Engr. of the Nashville, Chattanooga & St. Louis R.R., Nashville, on the construction of a new sewer system.

Cleveland, Ohio—(Official) — Bids will be received until noon, Mar. 18, by A. R. Callow, Comr. of Purchases and Supplies, for constructing a sewer in Dugway Brook.

+★Lodi, Ohio—(Official)—The contract for constructing a sanitary sewer system and a sewage disposal plant has been awarded to the CENTRAL OHIO CONSTRUCTION CO., 902 Swetland Bldg., Cleveland, Ohio, at $17,570. Noted Feb. 11.

Upper Sandusky, Ohio—Bids will be received until Mar. 19 for constructing a sewage treatment plant and a sewerage system at the Wyandotte County infirmary.

Gary, Ind.—Bids will be received about Apr. 5 for constructing District Sewer No. 24. The estimated cost is $12,-263. W. J. Fulton is City Engr.

Flint, Mich.—Press reports state that, at the election held Feb. 17, the citizens voted in favor of issuing $106,726 in bonds for constructing storm and sanitary sewers. Noted Feb. 4.

Traverse City, Mich.—At the April election the citizens will vote on the question of issuing $100,000 in bonds for constructing trunk sewers.

+Dundee, Ill.—Press reports state that a contract for constructing a sanitary sewer system has been awarded to E. M. SCHEFLOW, Baton Rouge, La., at $8882.

De Pere, Wis.—The City Council has authorized L. Alberts, City Engr., to prepare plans for the construction of a sanitary sewer.

Racine, Wis.—Bids will be received until Mar. 6 by Thompson, Kearney & Myers, Engr., Racine, for constructing the Mt. Pleasant and Somers drainage Districts. The work consists of 47,883 cu.yd. excavation: 1311 ft., 18-in., 800 ft., 15-in.; 3100 ft., 14-in.; 12,908 ft., 12-in.; 8692 ft., 10-in.; 3059 ft., 8-in. and 2435 ft. of 6-in. tile drain.

Mason City, Iowa—Bids will be received until 10 a.m., Mar. 10, by J. H. McEwen, City Clk., for constructing approximately 23,000 lin.ft. of submains and laterals.

Duluth, Minn.—The City Council plans to construct a sewer in Peabody St. The estimated cost of the work is $5783.

+Eldorado, Kan.—The contract for constructing a sewage purification plant has been awarded to McCOY & TAYLOR, Kansas City, Mo., at $8882. Other bids were: Heany Construction Co., Enid, Okla., $9215; Sharp Bros., Eldorado, Kan., $12,439; Kansas Paving & Construction Co., Kansas City, Mo., $10,281; Tonkawa Construction Co., Kansas City, Mo., $9591; Stack & Curry, Kansas City, Mo., $6998; M. W. Halben, Gary, Ind., $10,820; Everett & Burt, Hutchinson, Kan., $9861; O'Neil Construction Co., Leavenworth, Kan., $10,861. Noted Feb. 4.

Sisseton, S. D.—Bonds for $40,000 have been sold, the proceeds of which will be used for constructing the sewerage system.

Helena, Mont.—The City Council contemplates an expenditure of $40,000 for constructing sewers during 1915. John D. McLeod is City Engr.

Gurdon, Ark.—(Official)—See item under "Water Supply-Irrigation."

Langston, Okla.—See item under "Water Supply—Irrigation."

Tacoma, Wash.—The City Council has authorized W. C. Raleigh, City Engr., to prepare plans for the construction of sanitary sewers in A and B St. The estimated cost is $20,000.

Hayward, Calif.—At the election held Jan. 16, the question of issuing $62,000 in bonds for constructing a sewerage system and sewage disposal plant was defeated. Noted Jan. 7.

+Los Angeles, Calif.—The contract for constructing a sewer in Vine St. between Melrose Ave. and Santa Monica Blvd. has been awarded to R. A. WATTSON, 4907 Melrose Ave., at $9268.

+Los Angeles, Calif.—The contract for constructing a sewer in Figueroa St. from Manchester to Florence Ave. has been awarded to JOHN SUTALO, 844 North Broadway, at $14,169.

+Ocean Beach, Calif.—The contract for constructing a sewer has been awarded to CHARLES H. JULIAN, at $67,220.

Pomona, Calif.—The City Council plans an expenditure of $15,000 as an aid toward establishing a storm drain system.

Toronto, Ont.—The City Council contemplates an expenditure of $106,400 for sewer work.

GARBAGE

Lockport, N. Y.—Upon recommendation of John R. Earl, Mayor, the Board of Aldermen has under consideration the installation of a garbage incinerator to cost about $25,000.

+Millburn, N. J.—The Township Committee Feb. 23 awarded the contract for garbage removal for a period of one year to JOHN JENKINS, Millburn.

★Wilmington, Del.—(Official)—Bids, including plans and specifications, will be received until Apr. 1, by J. Austin Ellison, Secy., Bd. of Health, for the disposal of garbage for a period of nine years, from June 1, 1915. For details "See advertisement under "Contracts to Be Let."

New Orleans, La.—The Commission Council has sold the franchise for installing illuminated trash boxes at street corners to Miss C. C. Baldwin. Negotiations will soon be opened with manufacturers for receiving bids. Noted Jan. 14.

Cleveland, Ohio—Preliminary plans are being prepared by Frederick H. Betz, Arch., 420 City Hall, for the construction of a one-story garbage collection plant. The estimated cost is $40,000.

Brownood, Tex.—The City Council has ordered an election to be held Mar. 23 to vote on a bond issue of $8000 for the construction of a garbage crematory and septic tank.

STREETS AND ROADS

Boston, Mass.—Bids will be received by the State Highway Commission until Mar. 9 for the construction of 2600 lin.ft. of highway in North Andover. Arthur W. Dean, 15 Ashburton Pl., is Ch. Engr.

+Medford, Mass.—(Official)—Bids were received Feb. 9 for constructing the Mystic Valley Parkway from Main St. to Mystic Ave. as follows: M. Russo & Son Co., Boston, Mass., $80,424; Joseph McCormick, East Providence, R. I., $77,064; John Landis, Boston, $76,348; George T. Rendle Co. and Rendle & Stoddard, Boston, $75,860; Lawler Bros., Charlestown, Mass., $73,337; Susi and Williams, Boston, $70,610; Michael D. Russo, Boston, $69,362; William R. Farrell, Allston, Mass., $69,332; John P. Cavanagh & Co., Dorchester, $65,780; Peter Bompiani & Co., West Quincy, Mass., $63,511; Middlesex Contracting Co., Framingham, Mass., $63,410; Hugh Nawn Contracting Co., Roxbury, $62,809; B. Perine & Co., Ashland, Mass., $57,602; William J. McCarthy Co., Somerville, Mass., $57,448; John Cashman & Sons Co., Boston, Mass., $56,924; William B. Mullen, Belmont, Mass., $55,715; Timothy A. Moynihon, South Hamilton, $55,515; Charles A. Kelley, Somerville, $51,242; Rowe Contracting Co., Brighton, Mass., $51,077; James H. Fannon, Somerville, Mass., $48,743; Richmund F. Hudson, Melrose, $46,818; COLEMAN BROS., Boston, Mass., $43,780 (awarded contract).

Woonsocket, R. I.—(Official)—Bids will be received until 8 p.m., Mar. 11, by Charles D. Southwick, Chn. of the Com. on Streets and Bridges, for paving Pond St.

★Albany, N. Y.—(Official)—Bids will be received until 1 p.m., Mar. 23, by Edwin Duffey, State Highway Comr., 55 Lancaster St., for improving highways in various counties. For particulars see advertisement under "Contracts to Be Let."

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Mar. 10, by L. H. Pounds, Borough Pres., for improving sections of Benson Ave., Coney Island Ave., Ave. U, East Third, East Eighth and East 34th St.; also for 400,000 gal. of asphalt road oil.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 3 p.m., Mar. 11, by the Park Board, Municipal Bldg., Borough of Manhattan, for surfacing the City Island Rd. from the Eastern Blvd. to the City Island Rd. from the Eastern Blvd. to the City Island Bridge in Pelham Bay Park.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m., Mar. 11, by Maurice E. Connolly, Borough Pres., for improving Hopkins Ave. from Grand Ave. to Main St., Chichester Ave. from Van Wyck to Baker Ave., Harvard Ave., from Fulton St. to Hillside Ave., Hughes St. from Doscher Ave. westerly toward Buchman Ave., Thomson Ave. from the viaduct to Diagonal St. and College Point Causeway; also for repair work to pavements in the First, Second, Third, Fourth and Fifth wards.

Oneonta, N. Y.—Bids will be received until Mar. 15 by Frank M. Gurney, City Engr., for 13,700 sq.yd. of bituminous macadam pavement.

✚Syracuse, N. Y.—The contract for paving Catharine St. has been awarded to GUY B. DICKINSON, Kirk Bldg., at $11,846.

Bayonne, N. J.—The City Council will soon receive bids for improving a number of streets. Solomon J. Harwi is City Engr. and William P. Lea is City Clk.

Jersey City, N. J.—(Official)—Bids will be received until 2 p.m., Mar. 11, by the Board of Commissioners for improving Gray St. from Mercer to Academy St., and for repairs to asphalt pavements which are not under guarantee from date of contract to Nov. 30, 1915. Michael I. Fagan is City Clk.

Jersey City, N. J.—(Official)—Bids will be received until 3 p.m., Mar. 11, by the Board of Chosen Freeholders, Jersey City, for $150,000 of boulevard repair bonds. Walter O'Mara is Clk.

New Brunswick, N. J.—Bids will be received until Mar. 22 for grading and curbing various streets. F. C. Schneider is City Engr.

Connellsville, Penn.—Bonds for $100,000 have been sold, the proceeds of which will be used for improving streets.

✚Greenville, Penn.—The contract for paving College and Columbia Ave. has been awarded to WILLIAM McINTIRE & SONS, Sharon, Penn., at $27,928. Noted Jan. 28.

Portvue, Penn. (McKeesport post office)—An election will be held Mar. 16 to vote on the question of issuing $25,000 in bonds for street improvements.

Reading, Penn.—The City Council contemplates an expenditure of $77,000 for improving streets.

★Steelton, Penn.—(Official)—Bids will be received until 7:30 p.m., Mar. 15, by the City Council for subgrading, paving and curbing South Third St. from Highland to Du Pont St., Highland St. from Second to Third St. and Conestoga St. from Front to Christian St. For particulars see advertisement under "Contracts To Be Let."

Uniontown, Penn.—(Official)—Bids will be received until noon, Mar. 16, by Harry Kisinger, Fayette County Controller, for constructing highways in North Union, Perry and Franklin Townships.

✚Baltimore, Md.—The contract for paving Fayette St. from Charles to Paca St. has been awarded to the GEORGE LONG CONTRACTING CO., at $31,286.

★Baltimore, Md.—(Official)—Bids will be received until noon, Mar. 16, by the State Roads Commission, for oiling seven sections of State Highway. For particulars see advertisement under "Contracts to Be Let."

Cumberland, Md.—Press reports state that bids will be received until Mar. 23 for the sale of $150,000 in bonds for paving. Thomas W. Koon is Mayor.

Bland, Va.—At a recent election the question of issuing $30,000 in bonds for road and bridge improvements was defeated. Noted Dec. 31.

Boydton, Va.—At a recent election the citizens voted in favor of issuing $30,000 in bonds, the proceeds of which will be used for constructing roads in the Bluestone Road District. Noted Feb. 4.

★Kinston, N. C.—(Official)—Bids will be received until 5 p.m., Mar. 23, by the City Council for making street improvements and for sewerage improvements. For particulars see details under "Contracts To Be Let."

Quaker Gap, N. C.—At the election held Jan. 19, the question of issuing $50,000 in bonds for constructing roads was defeated. Noted Dec. 31.

Wilmington, N. C.—(Official)—All bids received Feb. 20 by L. W. Moore, Comr. of New Hanover County, for constructing 7¼ miles of clay-gravel roads were rejected. J. L. Becton, Wilmington, is Engr. Noted Feb. 11.

Anderson, S. C.—An election will be held Mar. 30 to vote on the question of issuing $750,000 in bonds, the proceeds of which will be used for constructing roads in Anderson County. J. S. Fowler is Chn. Highway Comn.

Orangeburg, S. C.—Bids received Feb. 12 by the City Council for grading and paving Courthouse Sq., Church and South Broughton St. were rejected. The work will be done by day labor. Noted Feb. 11.

Atlanta, Ga.—The City Council contemplates an expenditure of $65,000 for improving various streets.

★Waycross, Ga.—(Official)—Bids will be received until 7:30 p.m., Mar. 16, by Mayor and Board of Aldermen for constructing approximately 11,000 sq.yd. of brick pavement on Carswell Ave. A. C. Lowther is City Clk. For particulars see advertisement under "Contracts to Be Let."

Brooksville, Fla.—Bids will be received until Mar. 6 by the Board of County Commissioners for constructing hard surfaced highways. M. H. Snow is County Clk. Noted Jan. 7.

Jacksonville, Fla.—(Official)—Bids will be received until 8 p.m., Mar. 8, by the Committee on Public Works of the Board of Bond Trustees for improving various streets. S. C. Harrison, Jr., is Chn. of the Com. on Pub. Wks.

Jacksonville, Fla.—Bids will be received until Mar. 25 by the Commissioners of Duval County for hard-surfacing various roads with brick or asphalt macadam.

✚Sarasota, Fla.—The contract for constructing 1¾ miles of sidewalks has been awarded to GEORGE M. McALPIN, Sarasota.

Vernon, Ala.—The citizens of Lamar County will vote Mar. 23 on the question of issuing $150,000 in bonds, the proceeds of which will be used for road construction.

Hazlehurst, Miss.—At a recent election the citizens of Copiah County voted in favor of issuing $150,000 in bonds, the proceeds of which will be used for constructing roads.

Hahnville, La.—The citizens of St. Charles Parish Road District No. 2 will vote Mar. 9 on the question of issuing $70,000 in bonds for constructing a gravel road.

✚Mansfield, La.—A contract for constructing 4½ miles of concrete sidewalk has been awarded to C. E. SODERSTROM, Charleston, Mo.

New Orleans, La.—(Official)—Bids will be received until noon, Mar. 20, by the Highway Department of the Board of State Engineers, Room 104, New Orleans Court Bldg., for constructing about 26 miles of highway from Covington to Slidell, St. Tammany Parish. W. E. Atkinson is State Highway Engr.

✚Lexington, Ky.—A contract for repairing and oiling 31 miles of macadam streets during 1915 has been awarded to the CAREY-REED CO., Lexington, at $8246.

Louisville, Ky.—Bids will be received until Mar. 9 by the Board of Public Works for improving Johnson, Clark and Hill St. at an estimated cost of $29,500.

Morgantown, Ky.—Press reports state that the Butler County Fiscal Court contemplates an expenditure of $10,000 for constructing roads.

Berlin Heights, Ohio—Bonds for $30,000 have been sold, the proceeds of which will be used for improving roads. Noted Feb. 11.

✚Canton, Ohio—(Official)—Contracts have been awarded for improving the Alliance-Bolton Rd. to the HIGHWAY CONSTRUCTION CO., Elyria, Ohio, $10,602; Magnolia-Sparta Rd., to R. C. ROUSH, Canton, Ohia, $33,585; Massillon-Millersburg Rd., to P. DIEFFENBACHER & SONS, Massillon, Ohio, $68,;992; Navarre-Justus Rd., R. C. ROUSCH, Canton, Ohio, $24,465. Noted Feb. 18.

Cleveland, Ohio—(Official)—Bids will be received until 10 a.m., Mar. 10, by the Board of Commissioners of Cuyahoga County for improving Washington-State St. in Chagrin Falls Township. E. G. Krause is Clk. of Bd. of Comrs.

Columbus, Ohio—(Official)—Bids will be received until 2 p.m., Mar. 12, by James R. Marker, State Highway Comr., for improving Section K of the Cleveland-Sandusky Rd., in Erie County. The estimated cost is $14,155.

✚Fremont, Ohio—The contract for paving Clover St. has been awarded to the MODERN CONSTRUCTION CO., at $23,430.

✚Marysville, Ohio—(Official)—The contract for improving Houseman Rd. has been awarded to E. C. CODY, New Dover, Ohio, at $5349. Other bids were: C. O. Herd, $5307; Carey & Mulvain, $5382; Graham & Koffroth, $5360. Noted Feb. 18.

Middletown, Ohio—Bids will be received until Mar. 25 by the City Auditor for the sale of $25,510 in bonds, the proceeds of which will be used for improving various streets.

✚Toledo, Ohio—The contract for paving Moore St. from Lagrange to Stickney St. has been awarded to H. P. STREICHER & CO., at $22,488.

✚Troy, Ohio—The contract for paving Elm St. has been awarded to YOUNT & JACKSON, Dayton, Ohio, at $15,000.

Youngstown, Ohio—The City Council contemplates widening and paving Elm St. at an estimated cost of $50,000.

Zanesville, Ohio—The City Council contemplates an expenditure of $27,000 for paving Market, Third, Fourth and Fifth St.

Crown Point, Ind.—(Official)—Bids will be received until 1 p.m., Mar. 12, by the Commissioners of Lake County, for constructing gravel roads in North and Calumet Townships. E. Simon is County Audr.

✚Lebanon, Ind.—The contract for paving North East St. from Washington St. to the Prairie Creek bridge has been awarded to PATRICK SHAHAN & SON, at $17,060.

Terre Haute, Ind.—(Official)—Bids will be received until 11 a.m., Mar. 27, by the Commissioners of Vigo County for constructing two gravel roads in Lost Creek and Pierson Townships. Nathan G. Wallace is County Audr.

Vincennes, Ind.—(Official)—Bids will be received by the Board of Public Works, until 4 p.m., Mar. 15, for constructing 23,000 sq.yd. of pavements. E. G. Meyer is City Clk.

✚Detroit, Mich.—(Official)—Contracts have been awarded by the Department of Public Works for paving Dix Ave. to F. PORATH & SON, at $7925; Maryland Ave., to J. PORATH, at $7315; Kirby Ave. to the DETROIT ASPHALT PAVING CO., at $4994.

Saginaw, Mich.—At a recent election the citizens voted in favor of issuing $30,000 in bonds for constructing sidewalks.

+Rockford, Ill.—(Official)—Bids will be received until 11 a.m., Mar. 15, by W. W. Bennett, Pres. of the Bd. of Local Imp., for paving with brick portions of Melrose and Clinton St., and for macadamizing portions of Prospect St. For particulars see advertisement under "Contracts to Be Let."

+Rock Island, Ill.—The contract for paving 18th St. with brick has been awarded to the TRI-CITY CONSTRUCTION CO., Davenport, at approximately $25,000. Noted Jan. 7.

+Springfield, Ill.—(Official)—The Illinois State Highway Commission awarded contracts, Feb. 23, for highway work as follows: Cook County, Section G, WALTER & WINDES, Glencoe, $27,069; Madison County, Section A, CHARLES H. DEGENHARDT, Alton, $29,982; Winnebago County, Section B, CONNELLY & DUNNING, Chicago, $14,400; Winnebago County, Section A, WALTER & WINDES, Glencoe, $10,947; Alexander County, Section A, BLAND & FITZGERALD, Cairo, $5448; Whiteside County, Sections C and B, WALTER & WINDES, Glencoe, $10,887. Noted Feb. 18.

Springfield, Ill.—(Official)—Bids will be received until 11 a.m., Mar. 10, by the State Highway Commission for road construction as follows: Monroe County, Route 1, Section A, 1900 lin.ft. of concrete, estimated cost, $2979; Union County, Route 1, Section A, 3200 lin.ft. of gravel, estimated cost, $3130; Bureau County, Route 7, Section A, 4000 lin.ft. of concrete, estimated cost, $8129; Bureau County, Route 4, Section B, 3928 lin.ft. of concrete, estimated cost, $7826. All cement to be furnished by the State in all counties except in Union County, Section A.

Fond du Lac, Wis.—(Official)—Bids will be received until 3 p.m., Mar. 17, by the Board of Public Works for improving a number of streets. J. F. Hohensee is City Clk.

New London, Wis.—Bids will be received until Mar. 16 for constructing 1½ miles of road leading into the city. The approximate cost is $14,000. C. J. Thompson is City Clk.

Richland Center, Wis.—Bids will be received until 4 p.m., Mar. 19, by Rueben Sutton, City Clk., for paving various streets with reinforced concrete, tar macadam, asphalt and water-bound macadam.

Sparta, Wis.—Bids will be received until Mar. 17 by E. G. Kowitz, Chn. of the St. Com., for 41,333 sq.yd. of brick paving.

Superior, Wis.—The contract for paving Tower Ave. from First to Third St. has been awarded to the RUSSELL CONSTRUCTION CO., at $5980.

+Belle Plaine, Iowa—A contract for constructing 32,500 sq.yd. concrete or asphaltic concrete pavement and 23,000 ft. of concrete curb has been awarded to the WIDELL CO., Mankato, Minn., at $54,500. Noted Feb. 4.

+Carroll, Iowa—A contract for 33,000 sq.yd. of asphalt paving has been awarded to A. JAICKS CO., Kansas City, Mo., at $58,702. Noted Feb. 4.

+★Emmetsburg, Iowa—A contract for constructing 40,000 sq.yd. of paving has been awarded to ZITTERELL & SULLIVAN, Webster City, Iowa, at $101,022. Noted Jan. 28.

+Mason City, Iowa—(Official)—A contract for sheet asphalt paving has been awarded to the BRYANT ASPHALT PAVING CO., Waterloo, Iowa, at $118,000. Noted Feb. 18.

+Duluth, Minn.—The contract for paving lower Tower Ave. has been awarded to the RUSSELL CONSTRUCTION CO., at $5980.

+Ivanhoe, Minn.—(Official)—A contract for grading Road No. 1 has been awarded to LAMOREAUX BROS. CO., Omaha, Neb., at $9583.

Winona, Minn.—(Official)—Bids will be received until 2 p.m., Mar. 23, by C. W. Anding, County Audr., for constructing state rural highways in Winona County.

Topeka, Kan.—Press reports state the City Council contemplates paving a number of streets with brick and asphalt.

Butte, Mont.—Bids will be received about Mar. 10 for paving a portion of Arizona St. J. C. Driscoll is City Clk.

Missoula, Mont.—Bids will be received until Mar. 10 by the City Council for paving in Improvement District No. 33.

St. Louis, Mo.—The Board of Public Service contemplates paving Florissant Ave. from Carrie to Bernays Ave. at an estimated cost of $101,000.

Ballinger, Tex.—An election will be held to vote on the question of issuing $60,000 and $90,000 in bonds for road construction.

Ft. Worth, Tex.—Plans have been prepared for the construction of 3½ miles of pavement, at an estimated cost of $30,000.

Taylor, Tex.—An election will be held Mar. 20 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for paving streets. Noted Feb. 25.

+Wharton, Tex.—A contract for resurfacing 100,000 yd. gravel road has been awarded by the Commissioners' Court of Wharton County to the CALAHAN CONSTRUCTION CO.

Denver, Colo.—The City Council plans to repave 15th St. from Larimer to Broadway. The estimated cost is $90,000. H. F. Meryweather is City Engr.

+Pueblo, Colo.—A contract for constructing 8½ miles of gravel macadam pavement in the Mineral Palace Paving District has been awarded to the ANDERSON-HAMILL CONSTRUCTION CO., at $137,263. Noted Jan. 7 and Feb. 11.

Everett, Wash.—Bids will be received until Mar. 15 by Mae Weatherbee, County Audr., for constructing 2½ miles of Beverly Park Highway. The estimated cost is $16,000.

+Portland, Ore.—The contract for improving Oregon and East 23d St. with gravel bitulithic has been awarded to GIEBISCH & JOPLIN, at $10,199.

Benicia, Calif.—Bids will be received until 8 p.m., Mar. 9, by the Board of Trustees for the sale of $10,000 in bonds for improving and constructing roads.

+East San Diego, Calif.—The contract for improving Cabrillo Ave., Klauber, Castle, Howard, Clark and Center St. has been awarded to OLAF NELSON, at $17,595.

Santa Barbara, Calif.—(Official)—Bids will be received about Apr. 1 for the improvement of Moreno Rd., Grand Ave. and Valerio St. A. B. Cook is City Engr.

+Santa Barbara, Calif.—(Official)—The contract for improving Garden, Los Olivos and New Mission St. has been awarded to F. R. RITCHIE & CO., at approximately $24,200.

+Santa Barbara, Calif—(Official)—The contract for improving Mission and Hollister St. has been awarded to F. R. RITCHIE & CO., at approximately $50,650.

Ladysmith, B. C.—The City Council contemplates an expenditure of $25,000 for street paving.

INDUSTRIAL WORKS

Ansonia, Conn.—M. A. Crossman, Main St., is planning to construct four two-story storage buildings.

+Barnard, N. Y.—The Pennsylvania Feldspar Co., Franklin Bank Bldg., Philadelphia, Penn., has awarded the general contract to the GORSLINE & SWAN CONSTRUCTION CO., East Ave. and Chestnut St., Rochester, for the construction of a three-story, 70x70-ft. mill. The AMERICAN BRIDGE CO. was awarded the contract for the steel work. Noted under Rochester, N. Y., Dec. 24.

Kingston, N. Y.—Gerald W. Betz, Arch., 51 John St., has prepared plans for the construction of a one-story, 50x120-ft. factory for the Wemlinger Steel Piling Co., 11 Broadway, New York. The estimated cost is $40,000.

Port Chester, N. Y.—Russell G. Cory, Consult. Engr., 39 Cortland St., New York, is preparing plans for the construction of a three-story addition to the plant of the Simons Mfg. Co. Plans are also being prepared for an additional story to its present building. The estimated cost is $25,000.

Camden, N. J.—Plans are being prepared by Ballinger & Perrot, Arch., 1328 Broadway, New York, N. Y., for the construction of a six-story, 75x200-ft. factory for the Victor Talking Machine Co.

+Philadelphia, Penn.—LAM BUILDING CO., 1001 Wood St., has been awarded the contract for the construction of a five-story, 60x100-ft. store and warehouse at Second and Church St. for Harry Fliegelman, 36 North Second St. Estimated cost, $40,000.

Philadelphia, Penn.—Bids will soon be received for the construction of a two-story, 50x100-ft. warehouse on 35th and Hastings St. for the Philadelphia Rendering Co. Alfred Weeks, 1433 Chestnut St., is Engr. Noted Feb. 25.

Portvue, Penn.—(McKeesport post office)—The McKeesport Tin Plate Co. will soon start the construction of 20 tin-plate mills. The estimated cost is $1,800,000. Noted under McKeesport, Penn., Aug. 6.

Shenandoah, Penn.—Bids will be received about Mar. 10 by Koelle, Speth Co., Arch., 26th and Oxford St., Philadelphia, for the construction of a storage house for the Columbia Brewing Co. Noted Feb. 25.

South Bethlehem, Penn.—The Bethlehem Steel Co. has purchased a site adjoining its office building. The company plans to construct an addition to its plant. E. G. Grace is Pres.

Baltimore, Md.—Plans are being prepared by C. B. Comstock, Philadelphia, Penn., for the construction of a two-story, 44x68-ft. storage house on Eastern Ave. for William Schluderberg & Son, Fourth and Bank St., Baltimore. The estimated cost is $40,000.

Baltimore, Md.—Plans are being prepared for the construction of a three-story, 60x120-ft. garage on St. Paul St. near Mt. Royal Ave. for Walter Scott, 1127 West North Ave.

Baltimore, Md.—Bids will soon be received by the City Dairy Co. for the construction of a $750,000 plant at Remington Ave. and 29th St. The main building will be 103x320 ft. Other improvements include a 63x200-ft. garage and repair shop, a 80x105-ft. power plant and a 32x102-ft. stable. Joseph Evans Sperry, Arch., 409 Calvert Bldg., has prepared plans. Noted June 25 and July 9.

Washington, D. C.—Plans are being prepared by C. A. Didden & Son, Arch., Corcoran Bldg., for the construction of a seven-story, 40x100-ft. reinforced-concrete warehouse at 734 10th St., N. W., for Fries, Beall & Sharp Co., 522 10th St.

City Point, Va.—The Du Pont de Nemours Powder Co., Wilmington, Del., will spend between $5,000,000 and $6,000,000 for the construction of a plant at City Point. It will be eight times as large as originally planned. A. Felix Du Pont, Wilmington, Del., is in charge of the work.

Martinsburg, W. Va.—The Municipal Shale Brick & Block Co. was recently incorporated with a capital of $250,000. The company plans to construct a plant having a daily capacity of 60,000 paving blocks. Estimated cost, $150,000.

Charlotte, N. C.—The Ford Motor Co., Detroit, Mich., will construct a plant to cost about $200,000. James E. Couzens is Secy.

+Augusta, Ga.—The contract for the construction of a warehouse on Reynolds St. for Pope & Fleming, Inc., has been awarded to T. O. BROWN & SON. The estimated cost is $10,000. G. Lloyd Preacher is Arch.

Macon, Ga.—The Bibb Mfg. Co. plans to make an expenditure of $60,000 for improvements to its Mill No. 1, East Macon.

Palmetto, Fla.—Bids will be received until Mar. 15 for the construction of a 40x100-ft. and a 80x168-ft. fruit-packing plant for the Manatee Fruit Co. W. L. Preston is Pres. and F. D. Waite is Mgr.

Birmingham, Ala.—Plans have been prepared by W. T. Warren, Empire Bldg., for the construction of a two-story, 75x100-ft. factory for the Cruse-Crawford Mfg. Co.

Cleveland, Tenn.—The Cleveland Chair Co. will construct a factory to cost about $30,000.

Newport, Ky.—The Newport Business Men's Club contemplates the construction of a fireproof, concrete factory. The estimated cost is $40,000. W. C. Botts is Pres.

Cleveland, Ohio—Plans are being prepared by Ernest McGeorge, Arch., Leader News Bldg., for the construction of a fireproof plant on East 131st St. and St. Clair Ave., N. E., for the Elyria Iron & Steel Co., Elyria. Estimated cost, $75,000. Henry Wick, Elyria, is Pres. and J. Bernard, Elyria, is Secy.

Cleveland, Ohio—Plans are being prepared by Briggs & Nelson, Arch., 669 Rose Bldg., for the construction of a one-story, 100x400 ft. plant for the Cleveland Seating Co. Estimated cost, $100,000. Noted Sept. 3.

Fostoria, Ohio—The Fostoria Packing Co. plans to construct a packing house. A. J. McCrea, 3022 West 14th St., Cleveland, is Chn. of Bldg. Com.

Detroit, Mich.—R. C. Gernt, Arch., 15 Campau Bldg., is preparing plans for the construction of a four-story, 100x158-ft. factory for A. Wegener & Sons, 387 Riopelle St. The estimated cost is $50,000.

Chicago, Ill.—Paul Gerhardt, Arch., 64 West Randolph St., is preparing plans for the construction of a fireproof building at 41st St. and Lowe Ave. for T. E. Murray. The plant will be used for the manufacture and storage of serums and antitoxins. The estimated cost is $150,000.

Chicago, Ill.—The Oppenheimer Casing Co. will construct a two-story factory at West 36th near Morgan St. The estimated cost is $45,000.

✚Milwaukee, Wis.—The WISCONSIN CEMENT CONSTRUCTION CO., 1000 Humboldt Ave., has been awarded the contract for the construction of a factory and warehouse for Seeboth Bros., 111 Reed St. The estimated cost is $50,000. Noted Jan. 28 and Feb. 11.

Milwaukee, Wis.—Bids will soon be received for the construction of a six-story addition to the plant of the B. J. Johnson Soap Co., Fourth and Fowler St. The estimated cost is $150,000. Lockwood-Greene & Co., 38 South Dearborn St., Chicago, Ill., is Arch. Noted Feb. 25.

Duluth, Minn.—The Duluth Ice Co. is planning the construction of an ice manufacturing plant at Buchanan St. and St. Croix Ave. The estimated cost is $30,000.

St. Paul, Minn.—C. A. Hausler, City Arch., is preparing plans for the construction of a municipal garage. The estimated cost is $40,000.

Omaha, Neb.—The Emerson-Brantingham Co. will construct a warehouse. The estimated cost is $250,000.

Kansas City, Mo.—The Ridenour-Baker Grocery Co., 933 Mulberry St., will construct an eight- or nine-story, 120x180-ft. concrete warehouse and factory on St. Louis Ave. and Mulberry St. West Bottom. The estimated cost is $250,000. McKecknie & Trask is Arch.

Ballinger, Tex.—The Texas Compress Co. will rebuild its plant which was recently destroyed by fire with a loss of $300,000.

Seattle, Wash.—H. D. Stewart, American Bank Bldg., at $32,325, was the lowest bidder for the construction of a one-story storage building at Whatcom Ave. and Spokane St. for the Port Commission. Noted Dec. 31.

Wenatchee, Wash.—The Wenatchee Apple & Warehouse Co., recently organized, will construct a warehouse. It will be three stories, 100x100 ft., and cost about $30,000. F. C. Lemon, Wenatchee, and F. W. Keen, Seattle, are interested.

East San Pedro, Calif.—Eisen & Son, Arch., Wilcox Bldg., Los Angeles, has prepared plans for the construction of a 70x235-ft. packing plant and a 65x150-ft. warehouse for the Southern California Fish Co.

Longbeach, Calif.—The Chemical Pigment Co. was recently incorporated with a capital of $1,000,000. The company plans to construct a plant for the manufacture of white lead. Estimated cost, $250,000. W. H. Covert, 810 Walnut Ave., is interested.

Sebastopol, Calif.—The Sebastopol Berry Growers' Association plans to rebuild its warehouse destroyed by fire. It will be 60x224 ft. with a 60x100-ft. ell. Other improvements include a precooling plant to cost $10,000, a cannery and a packing house.

FEDERAL GOVERNMENT WORK

★✚Dredging—Boston, Mass.—The contract for dredging in Chelsea Creek, Boston Harbor, has been awarded to the MORRIS & CUMINGS DREDGING CO., 17 State St., New York, N. Y., at $35,280. Noted Jan. 21.

★Dredging—Providence, R. I.—Bids will be received until noon, Mar. 30, by Col. John Willis, U. S. Engineer Office, Newport, R. I., for dredging in Providence Harbor, R. I.

★Dredging—New York, N. Y.—The following bids were received for dredging in Portchester Harbor, price per cu.yd. scow measurement: John H. Seely, 31c.; John H. Gerrish, 36.6c.; Marathon Dredging Co., 39c. Noted Feb. 18.

Repairs to Vessel—New York, N. Y.—(Borough of Richmond)—Bids will be received by J. T. Yates, Lighthouse Inspector, Tompkinsville, until 2 p.m., Mar. 13, for making repairs to light vessel No. 54.

★Cement—New York, N. Y.—The lowest bid submitted for furnishing and delivering 32,000 bbl. of American portland cement was that of the Alpha Portland Cement Co., at $1.25 per bbl. Noted Feb. 18.

★Dredging—New Jersey—The following are the bids received for dredging in Woodbridge Creek, Raritan Bay and Shrewsbury River, N. J., prices per cu.yd. scow measurement. In Raritan Bay, Morris & Cumings Dredging Co., 17 State St., New York, N. Y., 11.82c.; William Beard & Co., 22.5c.; R. G. Packard Co., 16.84c.; In Woodbridge Creek, John & Joseph McSpirit, 40c.; Bay Dredging & Contracting Co., 215 Montague St., New York, N. Y. (Borough of Brooklyn), 35c. Noted Feb. 11.

✚Lumber—Philadelphia, Penn.—The contract for furnishing 100,000 ft. of No. 3—barn grade—white pine or cedar, has been awarded to G. ELIAS & BRO., Buffalo, N. Y., at $18.75 per M.

Sewers—Washington, D. C.—Bids were received Feb. 18, by the Commissioners of the District of Columbia for the construction of sewers in the District, involving the construction of about 3500 lin.ft. of trunk sewers, 6 ft. 6-in. span to 7-ft. span, as follows: (1) James Ferry & Son, Baltimore, Md., (2) George Hyman, Washington, D. C., (4) William F. Cush, Washington, D. C., (5) Martin & Miller, Caldwell, N. J., (3) Warren F. Brenizer, Washington, D. C., (6) James Sperritt, Inc., Washington, D. C.

Nailor's Run Trunk Sewer, Section 1, sewer on piling and timber foundation.

	(1)	(2)	(3)	(4)	(5)
Ordinary excavation, 50 cu.yd....	$2.00	$0.50	$2.00	$1.50	$1.00
Piling, 31,000 lin.ft..............	0.30	0.17½	0.15	0.23	0.17
Lumber, 72,500 ft. B.m..........	40.00	44.00	36.00	55.00	41.00
Concrete invert masonry "B", 785 cu.yd..........................	7.00	7.50	6.50	8.50	6.25
Concrete arch masonry, "B", 700 cu.yd..........................	8.00	7.50	6.50	9.75	6.75
Vitrified brick masonry, 95 cu.yd..	25.00	22.00	21.00	25.00	20.00
Sewer brick masonry, 5 cu.yd.....	18.00	16.00	14.00	16.00	12.00

Section 2, sewer in excavation.

	(1)	(2)	(3)	(4)	(5)
Ordinary excavation, 250 cu.yd...	$1.50	$0.50	$0.40	$1.50	$0.75
Concrete invert masonry, "B", 230 cu.yd..........................	7.00	7.50	6.50	8.50	6.25
Concrete arch masonry, "B", 165 cu.yd..........................	8.00	7.50	6.50	9.75	6.75
Vitrified brick masonry, 25 cu.yd..	25.00	22.00	21.00	25.00	20.00
Sewer brick masonry, 5 cu.yd.....	18.00	16.00	14.00	16.00	12.00

Hawes Run Trunk Sewer, Section 1, sewer on piling and timber foundation.

	(2)	(3)	(5)	(6)
Ordinary excavation, 200 cu.yd............	$0.50	$1.00	$1.00	$2.00
Piling, 32,200 lin.ft......................	0.17½	0.15	0.17	0.30
Lumber, 76,800 ft., B.m...................	44.00	36.00	41.00	40.00
Concrete invert masonry, "B", 825 cu.yd...	8.25	6.60	6.25	7.00
Concrete arch masonry, "B", 735 cu.yd....	8.25	6.60	6.75	8.00
Vitrified brick masonry, 100 cu.yd.........	25.00	26.00	20.00	25.00
Sewer brick masonry, 5 cu.yd.............	19.00	14.00	10.00	18.00

Section 2, sewer in excavation.

	(2)	(3)	(5)	(6)
Ordinary excavation, 450 cu.yd............	$0.50	$0.40	$0.65	$1.50
Concrete invert masonry "B", 323 cu.yd...	8.25	6.60	6.50	7.00
Concrete arch masonry, "B", 230 cu.yd....	8.25	6.60	6.90	8.00
Sewer brick masonry, 5 cu.yd.............	19.00	14.00	12.00	18.00
Vitrified brick masonry, 35 cu.yd..........	25.00	22.00	20.00	25.00

Burnt Bridge Run Trunk Sewer, Section 1, sewer on piling and timber foundation.

	(2)	(3)	(4)	(5)	(6)
Ordinary excavation, 50 cu.yd....	$0.75	$2.00	$1.56	$1.00	$2.00
Piling, 13,900 lin.ft..............	0.17½	0.15	0.23	0.17	0.30
Lumber, 32,000 ft. B.m..........	44.00	36.00	53.00	43.00	40.00
Concrete invert masonry, 350 cu.yd	6.50	6.50	6.75	6.50	7.00
Concrete arch masonry, 300 cu.yd.	6.50	5.50	6.50	7.00	8.00
Vitrified brick masonry, 40 cu.yd..	19.00	21.00	21.00	21.00	25.00
Sewer brick masonry, 5 cu.yd.....	14.00	14.00	14.00	12.00	18.00

Section 2, sewer in excavation:

	(2)	(3)	(4)	(5)	(6)
Ordinary excavation, 1250 cu.yd..	$0.50	$0.50	$1.25	$1.00	$1.50
Concrete invert masonry, "B", 360 cu.yd..........................	6.50	6.50	6.75	6.75	7.00
Concrete arch masonry, "B", 215 cu.yd..........................	6.50	6.50	7.75	7.00	8.00
Vitrified brick masonry, 40 cu.yd..	19.00	21.00	21.00	20.00	25.00
Sewer brick masonry, 5 cu.yd.....	14.00	12.00	14.00	12.00	18.00

Remodeling Toilet Rooms—Washington, D. C.—Bids were received Feb. 15 by the Superintendent of the State, War and Navy Bldg., Washington, D. C., for remodeling the toilet rooms in the above building, (a) using Riverside, Vt., marble, (b) using Mar-villa, Beaver Dam marble, (c) using Italian marble, as follows: Standard Engineering Co., Washington, D. C., (a) $82,825, (b) $80,065, (c) $88,425; Eberly Bros., Washington, D. C., (a) $90,000, (b) $87,600, (c) $95,070; Bullman Bros., Philadelphia, Penn., (a) $104,774, (b) $99,274, (c) $106,674; Richardson & Burgess, Washington, D. C., (a) $105,370, (b) $105,370, (c) $110,110; Newport Contracting & Engineering Co., Newport News, Va., (a) $84,490, (b) $82,220, (c) $90,000; W. G. Cornell Co., Washington, D. C., (a) $84,985, (b) $82,780, (c) $89,800; P. F. Gormley Co., Washington, D. C., (a) $95,254, (b) $92,984, (c) $99,211; Hanley-Casey Mechanical Equipment Co., Chicago, Ill., (a) $83,890, (b) $82,700, (c) $89,920; W. E. Mooney, Washington, D. C., (a) $91,695, (b) $89,295, (c) $96,785; Boyle-Robertson Construction Co., Washington, D. C., (a) $92,981, (b) $91,941, (c) $96,981; Frank L. Wagner, Washington, D. C., (a) and (b) $115,175, (c) $120,294.

Wharves—Washington, D. C.—Bids were received as follows on Feb. 11, by the Commissioners of the District of Columbia for constructing three new wharves with reinforced-concrete decks, to take the place of three old wharves on Water St., between 11th and 12th St., S. W., the work to include the necessary excavation, dredging and the construction of a concrete revetment wall supported on timber piles. (a) ordinary excavation, 2050 cu.yd.; (b) dredging, 16,600 cu.yd.; (c) revetment wall, 546 lin.ft., comprising 411 bearing piles, 39,600 ft. b.m., lumber, 685 Class "B" concrete; (d) bid A, wharves with reinforced-concrete decks supported directly on timber pile bents; (e) bid B, wharves with reinforced-concrete decks supported by concrete arched walls, the arched walls being supported by timber piles; (f) bid C, upon bidder's design, wharves with reinforced-concrete decks supported on concrete piles: Bid A comprises the following quantities: 536 bearing piles, 69 oak fender piles, 39 oak cluster piles, 94,600 ft. b.m., lumber, 725 cu.yd., Class A concrete, 68,800 lb. reinforcing steel, 19,280 lb. structural steel channels, 26 c.-i. mooring cleats, 24,000 lb. hardware. Bid B comprises the following quantities: 411 bearing piles, the same amount as above of oak fender and cluster piles, 43,200 ft. b.m., lumber, 965 cu.yd., Class A concrete, 95,000 lb. reinforcing steel, 965 lin.ft., curb protector, 26 c.-i. mooring cleats, and 8200 lb. hardware. James L. Marshall, McLachlen Bldg., Washington, D. C., (a) 68c.; (b) 68c.; (c) no bid; (d) $52,462; (e) $53,313; Penn Bridge Co., Washington, D. C., (a) 49c.; (b) 48c.; (c) $24; (d) no bid; (e) $22,593; Interstate Construction Co., 1170 Broadway, New York, (a) 80c.; (b) 80c.; (c) $17.50; (d) $30,297; (e) $27,653; (f) $29,300; Dorsey & Miller, Corcoran Bldg., Washington, D. C., (a) 54c.; (b) 54c.; (c) $18.42; (d) $21,900; (e) $25,000; (f) $39,000; Arthur L. Smith & Co., Woodward Bldg., Washington, D. C., (a) 75c.; (b) $1.50; (c)

$19.90; (d) $48,375; (e) $49,100; W. D. Murray & Co., Inc., Norfolk, Va., (a) 49½c.; (b) 49½c.; (c) $19.73; (d) $21,586; (e) $21,791; Snare & Triest Co., 233 Broadway, New York, (a) 60c.; (b) 80c.; (c) $21; (d) $25,700; (e) $26,600; Clark & Winston Co., 10th and Water St., Washington, D. C., (a) 73c.; (b) 73c.; (c) $19.44; (d) $22,628; (e) $24,610; Frederick Drew Co., Inc., Woodward Bldg., Washington, D. C., (a) 70c.; (b) 70c.; (c) $18; (d) $24,558; (e) $26,141; Alsop & Pierce, Newport News, Va., (a) 40c.; (b) 62c.; (c) $21.79; (d) $23,473; (e) $22,457; Sanford & Brookes Co., Baltimore, Md., (a) $3.83; (b) 30c.; (c) $20.70; (d) $26,220; (e) $26,695.

Public Buildings—Washington, D. C.—The following appropriations are incorporated in the Sundry Civil Appropriations Bill, covering the year ending June 30, 1916.

For commencement: Aberdeen, Wash., $1000; Alexandria, La. (extension), $40,000; Alliance, Neb., $1000; Anoko, Minn., $10,000; Antigo, Wis., $1000; Ashland, Ky., $30,000; Attleboro, Mass., $30,000; Aurora, Neb., $1000; Bakersfield, Calif., $1000; Barnesville, Ga., $1000; Bartow, Fla., $1000; Belton, Tex., $10,000; Buffalo, Wyo., $1000; Burlington, N. C., $1000; Caribou, Maine, $1000; Chadron, Neb., $1000; Charles City, Iowa. $1000; Chattanooga, Tenn. (extension), $30,000; Columbia, S. C., $1000; East Orange, N. J., $1000; East St. Louis, Ill., $95,000; Ellensburg, Wash., $10,000; Elyria, Ohio, $20,000; Evansville, Ind. (extension), $75,000; Falls City, Neb., $10,000; Globe, Ariz., $1000; Greenwich, Conn., $50,000; Grinnell, Iowa, $1000; Hackensack, N. J., $1000; Hornell, N. Y., $30,000; Humboldt, Tenn., $1000; Huntington, Ind., $10,000; Huntington, W.Va. (extension), $100,000; Jasper, Ala., $1000; Kalispell, Mont., $15,000; Kansas City, Mo. (extension), $250,000; Kirksville, Mo., $30,000; Little Falls, Minn., $10,000; Madison, Wis., $200,000; Marion, S.C., $1000; Maryville, Tenn., $10,000; McComb, Miss., $1000; Merrill, Wis., $35,000; Middletown, Conn., $1000; Middletown, Ohio, $50,000; Minden, La., $20,000; Missoula, Mont. (extension), $50,000; Moberly, Mo. (extension), $20,000; Montevideo, Minn., $1000; Nacogdoches, Tex., $20,000; Nashville, Tenn. (extension), $200,000; Naugatuck, Conn., $25,000; Navasota, Tex., $15,000; Neenah, Wis., $1000; New Braunfels, Tex., $20,000; Oklahoma City, Okla. (extension), $111,000; Pulaski, Va., $1000; Redfield, S. D., $1000; Ridgway, Penn., $25,000; Rockville, Conn., $1000; Roseburg, Ore., $1000; Rumford, Maine, $1000; St. Louis, Mo., subtreasury, $50,000; Salamanca, N. Y., $20,000; Sandusky, Ohio, $80,000; Saranac Lake, N. Y., $25,000; Savanna, Ill., $1000; Shelby, N. C., $1000; Shelbyville, Ky., $10,000; Sidney, Ohio, $10,000; South Bethlehem, Penn., $1000; Stamford, Tex., $1000; Tamaqua, Penn., $27,000; Tarentum, Penn., $1000; Taylorville, Ill., $10,000; Titusville, Penn., $15,000; Valley City, N. D., $15,000; Vancouver, Wash., $10,000; Van Wert, Ohio, $25,000; Washington, Ind., $1000; Washington, Iowa, $10,000; Waterloo, N. Y., $20,000; Waynesville, N. C., $1000; Wenatchee, Wash., $1000; Williamson, W. Va., $1000; Winchester, Ky. (changes), $20,000.

For continuation: Albion, Mich., $40,000; Baltimore, Md., immigration station, $300,000; Batavia, N. Y., $40,000; Beardstown, Ill., $27,000; Blackwell, Okla., $20,000; Brenham, Tex., $20,000; Chillicothe, Mo., $80,000; Coeur d'Alene, Idaho, $55,000; Cuero, Tex., $20,000; East Pittsburgh, Penn., $40,000; Eureka Springs, Ark., $16,000; Fort Atkinson, Wis., $30,000; Fulton, Mo., $30,000; Gardiner, Maine, $65,000; Gouverneur, N. Y., $35,000; Juneau, Alaska, $75,000; La Junta, Colo., $10,000; Laurel, Miss., $40,000; Lincoln, Neb., $135,000; Live Oak, Fla., $20,000; Millville, N. J., $25,000; Monongahela, Penn., $23,000; Mount Vernon, N. Y., $20,000; Muskegon, Mich. (extension), $30,000; Newark, Ohio, $50,000; Newport, R. I., $150,000; Opelika, Ala., $40,000; Palatka, Fla., $18,000; Putnam, Conn., $10,000; Quitman, Ga., $20,000; Syracuse, N. Y., $180,000; Tulsa, Okla., $45,000; Utica, N. Y. (extension), $180,000; Waltham, Mass., $20,000; Washington, D. C., Interior Department offices, $1,500,000; Webb City, Mo., $20,000; Wellsburg, W. Va., $30,000; Wilkesboro, N. C., $30,000; Ypsilanti, Mich., $35,000;

For completion: Albany, Ore., $10,000; Alliance, Ohio, $20,000; Amarillo, Tex., $133,000; Ardmore, Okla., $95,000; Augusta, Ga., $50,000; Bainbridge, Ga., $15,000; Bangor, Maine, $40,000; Bedford, Penn., $50,000; Berkeley, Calif., $20,000; Boston, Mass., appraisers' stores, $350,000; Bozeman, Mont., $30,000; Brattleboro, Vt., $50,000; Bryan, Tex., $4000; Cadillac, Mich., $43,000; Camden, S. C., $6500; Canton, Ill., $30,000; Canton, Miss., $30,000; Carnegie, Penn., $35,000; Cartersville, Ga., $5000; Chanute, Kan., $42,000; Collinsville, Ill., $36,000; Concord, N. H., $18,000; Cookeville, Tenn., $40,000; Corpus Christi, Tex., $70,000; Covington, Tenn., $6000; Danbury, Conn., $55,000; Delavan, Wis., $10,000; Denver, Colo., $200,000; De Soto, Mo., $5000; El Reno, Okla., $75,000; Ennis, Tex., $43,000; Everett, Wash., $85,000; Excelsior Springs, Mo., $20,000; Fayetteville, Tenn., $15,000; Fulton, Ky., $35,000; Garden City, Kan., $45,000; Gary, Ind., $50,000; Gastonia, N. C., $15,000; Glen Falls, N. Y., $45,000; Goldfield, Nev., $60,000; Grass Valley, Calif., $10,000; Greenfield, Mass., $75,000; Grenada, Miss., $25,000; Hagerstown, Md. (extension), $30,000; Hampton, Va., $20,000; Hanford, Calif., $15,000; Harrisburg, Penn. (extension), $75,000; Hilo, Hawaii, $50,000; Holland, Mich., $55,000; Huntington, Penn., $15,000; Ishpeming, Mich., $30,000; Jackson, Ky., $35,000; Jellico, Tenn., $30,000; Jennings, La., $25,000; Kinston, N. C., $20,000; Lafayette, La., $10,000; Lake City, Minn., $29,000; La Salle, Ill., $35,000; Lawton, Okla., $152,300; Longview, Tex., $20,000; Lynchburg, Va., $25,000; Mandan, N. D., $11,000; Martinsburg, W. Va., 20,000; McPherson, Kan., $20,000; Medford, Ore., $20,000; Middleboro, Ky., $65,000; Miles City, Mont., $118,500; Milwaukee, Wis., appraisers' stores, $40,000; Minot, N. D., $20,000; Mobile, Ala., $70,000; Morristown, N. J., $80,000; Moundsville, W. Va., $10,000; Mount Vernon, Ill., $8000; Narragansett Pier, R. I., $39,000; Newcastle, Ind., $15,000; New Haven, Conn., $400,000; New Orleans, La., remodeling customhouse, $250,000; New Rochelle, N. Y., $15,000; North Attleboro, Mass., $50,000; Norton, Va., $25,000; Orange, N. J., $20,000; Osage City, Kan., $12,000; Pendleton, Ore., $73,000; Pensacola, Fla. (extension), $30,000; Pittsburgh, Penn., laboratory, Bureau of Mines, $350,000; Plainfield, N. J., $80,000; Port Jervis, N. Y., $16,000; Poughkeepsie, N. Y. (extension), $40,000; Princeton, Ill., $50,000; Reading, Penn. (extension), $40,000; Robinson, Ill., $45,000; Rocky Mount, N. C., $30,000; St. Petersburg, Fla., $25,000; San Luis Obispo, Calif., $71,000; Seymour, Ind., $28,000; Shelbyville, Tenn., $5000; Smyrna, Del., $10,000; Sparta, Wis., $23,000; Stamford, Conn., $100,000; Sycamore, Ill., $15,000; Tarboro, N. C., $25,000; The Dalles, Ore., $60,000; Thomasville, Ga., $46,000; Three Rivers, Mich., $10,000; Tiffin, Ohio, $70,000; Tupelo, Miss., $40,000; Urbana, Ill., $10,000; Uvalde, Tex., $35,000; Williston, N. D. $5000; Wilmington, N. C., custom house, $220,000; Wilson, N. C., $15,000; Winchester, Tenn., $15,000; Winfield, Kan., $44,000; Wytheville, Va., $25,000; Yonkers, N. Y., $250,000.

Floating Crane—Portsmouth, Va.—Bids were received for the construction of a 150-ton floating revolving crane for the Navy Yard, Norfolk, Va., item 1, crane complete in accordance with Government specifications, item 2, crane complete in accordance with bidders' specifications, item 3, deduction for omitting bituminous coatings, as follows: Woerf Gusto, firm of A. F. Smulters, Schiedam, Holland, (2) $380,000 (exclusive of customs duties and harbors duties), (3) $4000; Cleveland Crane & Engineering Co., Wickliffe, Ohio, (1) $422,990, (2) $442,790, (3) $10,700; Wellman-Seaver-Morgan Co., 7000 Central Ave., Cleveland, Ohio, (1) $323,750, (2) $299,000 (duplicate of 150-ton crane furnished at Boston Navy Yard), (3) $13,800; Morgan Engineering Co., Alliance, Ohio, (2) $381,985, (3) $10,000; Shipbuilding & Engineering Co., of Woerf Conrad, Haarlem, Holland, (1) $400,000 (exclusive of customs duties and harbors duties), (3) $12,000; Newmeyer & Diamond, Agents, 82 Beaver St., New York, (1) $439,500, (2) $450,000, (3) $4150; Bethlehem Steel Co., South Bethlehem, Penn., (1) $353,000, (2) $425,000, (3) $6000 (subject to award by Mar. 31). Noted Feb. 11.

Repairs to Buildings—New Orleans, La. — Bids were received as follows for repairs and alterations in buildings Nos. 8, 10, 11, marine barracks and marine quarters at the Naval Station, New Orleans: Henry Monk, Pensacola, Fla., $36,624; Grohne Contracting Co., Joliet, Ill., $31,890; Newport Contracting & Engineering Co., Inc., Newport News, Va., $29,605; L. M. Dalgarde, New Orleans, $77,645; C. O. Eure, Hattiesburg, Miss., $28,658. Noted Feb. 14.

Dwelling and Dormitory—New Orleans, La.—Bids will be received until 11 a.m., May 15, by William M. Smith, Acting Chief of the Bureau of Yards and Docks, Navy Dept., for constructing a one-story frame dwelling and a one-story frame dormitory at the naval station, New Orleans.

✚Steel Hull—Cincinnati, Ohio—The contract for constructing the steel hull for derrick boat No. 4, Kentucky River, has been awarded to the NASHVILLE BRIDGE CO., Nashville, Tenn., at $5900.

★Towboats—Cincinnati, Ohio.—The following bids were received for constructing and delivering two steel sternwheel towboats, "Cayuga" and "Ottawa": Charles Barnes Co., Cincinnati, $42,789; Edward J. Howard, Jeffersonville, Ind., $53,784; Dubuque Boat & Boiler Co., $48,366; Rees Co., Pittsburgh, Penn., $54,275. Noted Jan. 28.

Dredging—Toledo, Ohio—The following are the bids received for dredging in Toledo Harbor: Duluth Superior Dredge Co., Duluth, Minn., $97,580; John P. Breymann, Toledo, $77,420 (on two sections); Greiling Bros., Green Bay, Wis., $123,880; Zenith Dredge Co., Duluth, Minn., $94,133; Fitzsimons & Connell Dredge & Dock Co., Chicago, Ill., $112,050; Great Lakes Dredge & Dock Co., Cleveland, Ohio, $81,190. Noted Feb. 4.

★Dredging—Indiana Harbor, Ind.—Bids will be received until 10 a.m., Mar. 29, by Lieut.-Col. W. V. Judson, U. S. Engineer Office, Chicago, Ill., for dredging in Indiana Harbor.

✚Addition to Post Office—Lincoln, Neb.—The contract for the construction of the addition to the post office at Lincoln, has been awarded to J. H. WEESE, Omaha, Neb., at $213,720. Noted Jan. 7 and Feb. 25.

✚Post Office—Uvalde, Tex.—The contract for the construction of the post office at Uvalde has been awarded to the RIVERON CONSTRUCTION CO., Uniontown, Ala. Noted Dec. 17 and Jan. 28.

Sewer System—Phœnix, Ariz.—Bids will be received by Cato Sells, Comr., Dept. of the Interior, Office of Indian Affairs, Washington, D. C., until 2 p.m., Mar. 29, for constructing a sewer system at the Phœnix Indian School and Sanatorium.

Buildings—Tucson, Ariz.—Bids will be received by Cato Sells, Comr. of Indian Affairs, Dept., of the Interior, Washington, D. C., until 2 p.m., Mar. 22, for the construction of three combination adobe school buildings at Indian Oasis, Ventana and Comobabi Indian villages.

✚Wood Stave Pipe—Benton City, Wash.—The contract for the construction of the wood stave pipe for the Snipes Mountain pumping plant of the Sunnyside unit, Yakima project, has been awarded to the PACIFIC PIPE & TANK CO., Portland, Ore., at $11,094.

Foundations—San Diego, Calif.—The following are the bids received for the construction of three foundations for radio towers, at San Diego: Doran & Reedo, $9100; Snare & Triest Co., 233 Broadway, New York, N. Y., $11,980; Henry Monk, Pensacola, Fla., $13,650; Spalding Construction Co., San Francisco, Calif., $8187; John Campbell, $9014; W. E. Keir Construction Co., $10,300; C. L. Hyde Construction Co., $7999; Isbell Construction Co., $7215; Sparks & Hale, $8560; W. N. Concannon Co., San Francisco, Calif., $12,788; Brown & Decew, $8384; Holland Construction Co., $7458; H. H. Hancock, $10,340; above bidders of San Diego, Calif., unless otherwise specified. Noted Jan. 28.

Wireless Towers—San Diego, Calif.—Bids were received as follows on Feb. 27 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of nine 600-ft. wireless towers, three each at the radio stations at San Diego, Pearl Harbor, Hawaii, and Cavite, P. I., under the following items: Item 1, net price per lb. for steel for all nine towers; item 2, net price per lb. for the three towers at San Diego; item 3, net price per lb. for the three at Pearl Harbor; item 4, net price per lb. for the three at Cavite. The estimated weight of the steel work for each tower is 300 tons. W. B. Kyle, Call Bldg., San Francisco, (1) 6.83c., (2) 4.99c., (3) 5.49c.; Lord Young Engineering Co., Honolulu, Hawaii, (3) 5.85c.; Henry Monk, Pensacola, Fla., (1) 8.4c., (2) 7.3c., (3) 8.6c., (4) 9.3c.; Llewellyn Iron Works, Los Angeles, Calif., (2) 4.85c., (3) 5.15c.; Spalding Construction Co., Rialto Bldg., San Francisco, Calif., (3) 5.7c.; Dyer Bros, Golden West Iron Works, 17th and Kansas St., San Francisco, Calif., (1) 7.42c., (2) 6.75c., (3) 7.5c., (4) 8c.; Pacific Rolling Mill Co., Sharon Bldg., San Francisco, Calif., (2) 5.277c., (3) 5.157c., Ralston Iron Works Co., 20th and Indiana St., San Francisco, Calif., (2) 5.9c.; Wisconsin Bridge & Iron Co., Milwaukee, Wis., (2) 6.34c.; United

States Steel Products Co., New York, lump sum bid, irregular, (1) $333,296, (2) $104,636, (3) $110,382; (4) $121,526; Toledo Bridge & Crane Co., Toledo, Ohio, (2) 4.95c.; Ross Construction Co., Sacramento, Calif., (2) 7.553c.; Penn Bridge Co., Bond Bldg., Washington, (1) 6.18c.; Chicago Bridge & Iron Co., and Pittsburgh-Des Moines Iron Co., Curry Bldg., Pittsburgh, Penn., (1) 5.29c., (2) 5.7c., (3) 5.33c., (4) 5.7c.

Foundations—Pearl Harbor, Hawaii—Bids were received for constructing foundations for three radio towers at Pearl Harbor from W. N. Concannon Co., San Francisco, Calif., $10,867; Henry Monk, Pensacola, Fla., $20,000. Noted Jan. 28.

Wireless Towers—Pearl Harbor, Hawaii—See item under San Diego, Calif.

Wireless Towers—Philippine Islands—See item under San Diego, Calif.

MISCELLANEOUS

Enlarging Station—Boston, Mass.—Bids will be received until Mar. 11 by the Transit Commission for enlarging the Park St. station. E. S. Davis, 15 Beacon St., is Ch. Engr.

★Subway—Boston, Mass.—(Official)—The following bids were received Feb. 25 by the Boston Transit Commission for the construction of Section H, Dorchester Tunnel: T. A. Gillespie Co., 50 Church St., New York, $554,750; H. P. Converse & Co., 60 Broad St., Boston, $561,401; J. P. O'Riorden, Charlestown, Mass., $581,470; W. J. Brady, Roslindale, Mass., $604,350; Bruno & Petitti, Boston, $607,900; L. B. Cleveland, Watertown, N. Y., $610,625; Coleman Bros., Boston, $612,190; Hugh Nawn Construction Co., Roxbury, Mass., $628,510; James J. Coughlan Co., Boston, $636,780; Thomas-Harmon Co., St. Louis, $645,352; James E. Gaffney, Boston, $658,110; Rowe Contracting Co., Brighton, Mass., $660,595; P. McGovern & Co., Boston, $684,850; Oscar Daniels Co., New York, $712,610. Noted Feb. 11.

Coal-Handling Apparatus—Boston, Mass.—Bids will be received until Mar. 16, by the Trustees of the Boston City Hospital for coal pockets and coal-handling apparatus for the Boston City Hospital. John J. Dowlings, M. D., is Supt.

Fill—New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 3 p.m., March 11, by the Park Board, Municipal Bldg., Borough of Manhattan, for furnishing and placing 250,000 cu.yd. of earth along the shore road between 94th St. and Fort Hamilton Ave. Amount of security required, $20,000.

✚Elevated Railway Work—New York, N. Y.—(Borough of Brooklyn)—The Public Service Commission of the First District has approved the award of the New York Municipal Railway Corporation to POST & McCORD, INC., at $331,163, for the construction of nine stations on the Sea Beach line which joins the Fourth Ave. subway at 65th St.

✚Fire Hose—New York, N. Y.—(Borough of Manhattan)—The Bureau of Repairs and Supplies has awarded a contract to the MANHATTAN RUBBER MFG. CO., 18 Vesey St., New York, at $19,868, for furnishing 40,000 ft. of 2½-in. rubber-lined fire hose.

Motor Fire Apparatus—Utica, N. Y.—The City Council has authorized a bond issue of $40,000 for the purchase of motor-driven apparatus for the fire department.

✚Seawall—Allenhurst, N. J.—The City Council has awarded the contract for the construction of an extension to the seawall to JAMES W. BROOKS, Ocean Grove, at $11,367. Noted Jan. 21.

✚Fire Station—Hoboken, N. J.—The Common Council has awarded the contract for constructing the fire station at Second and Jefferson St. to A. J. PHELAN, 47 Park St., Jersey City, at $37,750. Noted Nov. 26, Dec. 17, Jan. 7, and 14, Feb. 4.

Fire Apparatus—Jersey City, N. J.—(Official)—Bids will be received until 2 p.m., Mar. 11, by the Board of Commissioners for furnishing seven horse-drawn steam fire engines, three 75-ft. motor aërial trucks and three fuel cars.

Dump Carts—Jersey City, N. J.—(Official)—Bids will be received until 2 p.m., Mar. 11, by the Board of Commissioners for furnishing steel body dump carts. M. I. Fagan is City Clk.

Bathhouse—Newark, N. J.—Max Weinburg, 26 Mercer St., plans to construct a Turkish bath at 32 Mercer St. It will be three stories, 28x125 ft. The estimated cost is $30,000. M. J. Nadel, 9 Clinton St., is Arch.

Dike—Newark, N. J.—(Official)—Bids will be received until 4:30 p.m., Mar. 15, by the Essex County Mosquito Extermination Committee for the construction of about one mile of dike in the Newark meadows.

Park Work—Harrisburg, Penn.—Warren H. Manning, Landscape Arch., Boston, Mass., has been commissioned by the City Planning Commission to prepare sketches for the beautifying of Capitol Park.

★Road Roller, Concrete Mixer and Heating Kettles—Sharon, Penn.—(Official)—Bids will be received until noon, Mar. 10, by Claude B. Lartz, Secy., Borough of Sharon, for one three-wheel, 10-ton road roller, one batch concrete mixer with gravity distributor and two five-barrel heating kettles For details see advertisement under "Contracts to Be Let."

Wagons—Washington, D. C.—(Official)—The Siamese Royal Railway Department invites bids for 159 Goods and Cattle Wagons and spare parts. Specifications and drawings may be had from the Siamese Legation, Washington, D. C., on payment of fee of $4.

✚Drainage—Bradentown, Fla.—The contract for drainage work in Manatee County has been awarded to CHARLES F. HILL, Palmetto, at $100,000.

★Track Material—Jacksonville, Fla.—(Official)—Bids will be received until noon, Mar. 10, by the Board of Port Commissioners, Room 314 Realty Bldg. for track material. F. W. Bruce is Ch. Engr. For details see advertisement under "Contracts to Be Let."

Drainage—Gonzales, La.—The following bids were received Feb. 4 by the Commissioners of New River Drainage District for 2,000,000 cu.yd. of canal excavation: Hampton Reynolds, New Orleans, 12c.; J. S. Codifer, New Orleans, 8.25c.; R. H. & G. A. McWilliams, Chicago, 7.65c. cash basis and purchase of bonds amounting to $175,000; D. B. Gore & Co., Shreveport, La., 7.49c., cash basis 8.74c. and purchase of bonds at par, and 6.75c. including 15% commission and cost of equipment. Noted Dec. 31.

Elimination of Grade Crossing—Canton, Ohio—The Pennsylvania R.R. is having plans prepared for elevating its tracks, eliminating the grade crossing at Deuber Ave.

Motor Fire Apparatus—Lima, Ohio—The City Council has authorized a bond issue of $15,000 for motorizing the fire department equipment.

★Dredging—Xenia, Ohio—(Official)—Bids will be received until 10 a.m., Mar. 18, by the Board of County Commissioners, Greene County, for the excavation of 144,183 cu.yd. of earth, floating dredge work. For details see advertisement under "Contracts to Be Let."

Ditch—Ft. Wayne, Ind.—Bids will be received until Mar. 6, for the construction of 2.75 miles of ditch. R. W. Guenther is County Engr.

Elimination of Grade Crossing—Flint, Mich.—On Feb. 17 the citizens approved a bond issue of $50,000, the proceeds to be used for the construction of a subway under the tracks of the Pere Marquette R.R. D. E. Newcombe is City Clk.

✚Drainage—Lewistown, Ill.—The Commissioners of Fulton County have awarded the following contracts for drainage and levee work: For drainage ditches and levees, M. J. O'MARA & SONS, Beardstown, at $110,000; constructing pumping plant, BEARDSTOWN CONCRETE CONSTRUCTION CO., at $12,000; for blasting and clearing, H. B. OWSLEY CO., Beardstown, at $8000. Noted Feb. 4.

Waterway—Springfield, Ill.—Edward F. Dunne, Governor, has sent a message to the Illinois General Assembly urging that body to authorize the construction of an 8-ft. waterway between Joliet and Utica, thereby forming a continuous channel from the lakes to the gulf; the authorization of a bond issue, not to exceed $3,500,000 was also urged.

✚Elevators—Milwaukee, Wis.—The contract for furnishing and installing all freight and passenger elevators in the new addition to Gimbel Bros. store has been awarded to the S. HELLER ELEVATOR CO., Milwaukee. H. J. Esser, Camp Bldg., is Arch.

✚Ditch—Bemidji, Minn.—The contract for the construction of Ditch No. 27 has been awarded to GEORGE E. BROWN, Litchfield, at about $63,000.

Asphalt and Asphaltic Cement—Minneapolis, Minn.—(Official)—The following bids were received by the city for (a) 800 tons asphaltic cement, (b) 800 tons asphalt, f.o.b. cars Minneapolis: John Baker Jr., Chicago, (a) $17.43 (b) $17.43; Magnolia Petroleum Co., Dallas, Tex., (a) $17.25 (b) $17.25; Union Oil Co., Chicago, (a) $17 (b) $17; George W. Lampson, Chicago, (Standard Oil Co. of N. J.) (a) $15.87, (b) $15.87; Standard Oil Co., Indiana, Chicago, (a) $14.50, (b) $14.50; Barber Asphalt Co., Chicago "Trinidad", (a) $26.65, (b) $22.74, "Bermudez," (a) $35.64, (b) $33.32. Noted Feb. 18.

Ditch Work—Owatonna, Minn.—Bids will be received until Mar. 13 by M. J. Parcher, County Audr., for the construction of Judicial Ditch No. 2, about 240,500 cu.yd. of excavation. A highway bridge will also be constructed and 30 metal culverts installed. George A. Ralph, 410 Shubert Bldg., St. Paul, is Engr.

✚Drainage—Cape Girardeau, Mo.—The Commissioners of the Little River Drainage District have awarded the contracts for the construction of Ditches Nos. 11 and 17, about 9,850,000 cu.yd., to the HOOSIER LAND & INVESTMENT CO., Sikeston, at 6.19c. per cu.yd. for excavation and $20 per acre for clearing.

✚Drainage—Elsberry, Mo.—The contract for 100,000 cu.yd. of earthwork in the Elsberry Drainage District has been awarded to the WILLIAM J. CALLAHAN CONSTRUCTION CO., Elsberry, at $13,480.

Elimination of Grade Crossings—Kansas City, Mo.—The county and the Missouri Pacific Ry. have made a tentative agreement for the construction of a subway, eliminating the grade crossing between Kansas City and Independence. A. L. Cooper, County Counselor, has announced that an overhead crossing will be constructed in the same vicinity over the tracks of the Chicago & Alton. The estimated cost of the two projects is $40,000.

Ditches—Edna, Tex.—Bids will be received until Mar. 9 by the Drainage Commissioners, County Drainage District No. 5, for the construction of ditches, drains, canals and levees, about 627,390 cu.yd. of excavation. J. W. De Witt is Chn., Drainage Comrs.

Dock—Hoquiam, Wash.—The Port of Hoquiam is having plans prepared for the construction of a 150x1250-ft. dock at the foot of Eighth St. The estimated cost is $75,000.

✚Canal Work—Chico, Calif.—The Feather River Canal Co. has awarded a contract for the construction of reinforced-concrete headgates and spillways on the main canal near Thermalito to the CHICO CONSTRUCTION CO., at approximately $25,000.

✚Pier—San Francisco, Calif.—The State Board of Harbor Commissioners has awarded the contract for repairing Pier 21, at the fot of Filbert St., to the SAN FRANCISCO BRIDGE CO., at $11,887.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Biddeford, Maine—Preliminary plans are being prepared for the construction of a theater on the site of the Thacher Hotel. Estimated cost, $100,000. E. J. Bolin is interested.

Lewiston, Maine—Plans have been prepared by Frank A. Munsey, Arch., New York, N. Y., for the construction of a nine-story hotel at Bates and Main St. Estimated cost, $750,000.

+Boston, Mass.—The contract for erecting Ward C at the Consumptives' Hospital on River St., Dorchester District, has been awarded to the J. F. LOCATELLI CO., INC., at $60,384, under Item 1. Other bids for items 1 and 2 were: J. E. Locatelli (2) $56,554; Leighton Mitchell Co., $61,745, $56,745; C. S. Cunningham Construction Co., $62,676, $58,576; J. Caddigan Co., $62,900, $59,200; Norcross Bros. Co., $63,754; A. Piotti, $65,340, $60,618; William Crane, $66,555, $62,195; Haynes Construction Co., $66,800, $59,700; J. Slotnik, $69,875, $65,500; Marr Bros. & Stewart Co., $70,378, $65,378; S. P. Troy Co., $73,250, $69,250; M. D. Mealey & Co., $73,500, $69,500.

+Boston, Mass.—The contract for the construction of a hotel on Columbus Ave., for D. J. Keefe and Cornelius Keefe, 111 Dartmouth St., has been awarded to the S. A. DODGE CO., Cambridge, Mass. Estimated cost, $150,000. Noted Feb. 4.

+Boston, Mass.—The contract for the construction of a theater at Massachusetts Ave. and St. Cecelia St. for the Colonial Amusement Co., has been awarded to the JARDIN CO., 489 Fifth Ave., New York, N. Y. Estimated cost, $120,000. Noted Dec. 10, 1914.

Boston, Mass.—Preliminary plans are being prepared for the construction of a six-story office building at Oliver and Franklin St. for A. W. Perry. Estimated cost, $60,000.

Chelsea, Mass.—(Boston post office)—Plans are being prepared by Y. H. Gowing, 18 Tremont St., Boston, for the construction of a four-story apartment block. Estimated cost, $60,000.

Salem, Mass.—A. J. Davis, 221 Essex St., plans to construct a three-story, 90x93-ft. store and apartment block at Federal and Boston St. Estimated cost, $40,000.

Springfield, Mass.—Plans are being prepared by Hoggson Bros., New York, N. Y., for the construction of a 10-story bank and office building at Harrison Ave. and Main St. for the Third Ave. National Bank. Estimated cost, $600,000. Joseph Shattuck is Pres. of Bank.

Springfield, Mass.—Bids will be received until 6 p.m., Mar. 11, for the construction of a seven-story, 127x150 ft., building on Chestnut near Hillman St. for the Y. M. C. A. Estimated cost, $93,000. Shattuck & Hussey, Chicago, Ill., is Arch. Noted Feb. 25.

Springfield, Mass.—(Official)—Bids will soon be received by Russell C. Parsons for the construction of a five-story apartment house on Maple St. Estimated cost, $45,000. Noted Feb. 18.

Providence, R. I.—Jackson, Robertson & Adams, Turks Head Bldg., is preparing plans for the construction of a church for the Luthenian Society. Estimated cost, $60,000. S. G. Hogglund, 134 Wesleyan Ave., is Pastor.

Bristol, Conn.—Bids will be received until 4 p.m., Mar. 15, by Newell Jennings, 195 Main St., for the construction of a two-story, 116x124-ft. school on Maple St., for District No. 1. Estimated cost, $85,000. Walter P. Crabtree, 272 Main St., New Britain, Conn., is Arch. Noted Jan. 21, 1915.

Milford, Conn.—The Board of Selectmen contemplates the rebuilding of the Town Hall and Court House recently destroyed by fire. Estimated cost, $75,000.

+New London, Conn.—The general contract for the construction of a three-story, 120x156-ft. building on Meridian St., for the Y. M. C. A., has been awarded to H. R. DOUGLAS, INC., 75 Jefferson Ave., at $77,900. Noted Dec. 31.

New York, N. Y.—(Borough of Bronx)—Plans have been prepared by John P. Boyland, Fordham Rd. and Webster Ave., for the construction of a five-story apartment house at Crotona Ave. and 170th St. for the Joseph Sonsin Co., 1344 Bristow St. Estimated cost, $60,000.

New York, N. Y.—(Borough of Bronx)—Bids will be received Mar. 15 by the P. J. Dwyer Building Co., 1879 Southern Blvd., for the construction of four five-story apartment houses at 184th St. and Grand Concourse. Noted Feb. 25.

New York, N. Y.—(Borough of Bronx)—Bids will be received until Mar. 6 by the Police Department for the construction of a five-story police station at Brook Ave. and 142d St. Estimated cost, $150,000. Thain, Hewlett & Reddy, 1181 Broadway, is Arch.

New York, N. Y.—(Borough of Bronx)—Gronenberg & Leuchtag, 303 Fifth Ave., has completed plans for the construction of a five-story apartment house at 100 Haven Ave., for the Filrose Construction Co. Estimated cost, $90,000.

+New York, N. Y.—(Borough of Manhattan)—The general contract has been awarded to THOMAS T. HOPPER CO., 1326 Broadway, for alterations to the 10-story hospital at 61st St. and Amsterdam Ave., for the New York Nursery and Child's Hospital, 161 West 61st St. Estimated cost, $100,000.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared for the construction of a moving picture theater on Broadway, between 160th and 161st St., for P. H. Lynch, 520 West 142nd St. Estimated cost, $100,000.

New York, N. Y.—(Borough of Manhattan)— Plans are being prepared by J. C. Green, Arch., 2 Columbus Circle, for the construction of a 12-story building at 1562 Broadway, for the L. F. H. & M. Co. Estimated cost, $65,000.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Louis A. Sheinart, Arch., 194 Bowery, for the construction of a five-story annex to the Home of the Sons and Daughters of Israel, at 232 East 10th St. Estimated cost, $40,000.

New York, N. Y.—(Borough of Manhattan)—The Charmion Construction Co. plans to construct a 12-story apartment house at West End Ave. and 75th St. Estimated cost, $1,000,000.

New York, N. Y.—(Borough of Queens)—Plans are being prepared for the construction of a 12-story loft building on Jackson Ave. and Tenth St., Long Island City, for the Everett Realty & Construction Co., Flatiron Bldg., New York, N. Y. Estimated cost, $500,000.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., New York, N. Y., until 3 p.m., Mar. 8, for the construction of P. S. No. 41, in Crocheron and Franklin Ave., Bayside, N. Y. Estimated cost, $40,000.

Rochester, N. Y.—The George C. Buell Co., Exchange St., plans to construct a four-story building on Exchange near Adams St. Estimated cost, $100,000.

Rochester, N. Y.—The Knights of Columbus, Canandaigua, N. Y., contemplates the construction of a clubhouse. Estimated cost, $150,000. James Dunnigan, Canandaigua, is interested.

Syracuse, N. Y.—Plans have been prepared for the construction of a theater and office building at 412 South Salina St., for the United Booking Offices of America. Estimated cost, $500,000.

East Orange, N. J.—The Ballum Investment Co. plans to construct a five-story apartment house on Harrison St. Estimated cost, $125,000.

Morristown, N. J.—Plans have been prepared by Guilbert & Betelle, Arch., 665 Broad St., Newark, for the construction of a three-story, 130x170-ft. high school on Early Ave. Estimated cost, $150,000.

Newark, N. J.—Plans are being prepared by McMurray & Pulis, Arch., for the construction of a theater for the J. Frank Hatch Film Co., Pittsburgh, Penn. Estimated cost, $60,000.

Newark, N. J.—E. V. Warren, 31 Clinton St., has prepared plans for the construction of a five-story, 50x82-ft. building, on Camp St. near Broad St., for the J. H. Mazel Co., 65 South Munn Ave. Estimated cost, $50,000.

Rutherford, N. J.—The Board of Education contemplates the construction of a two-story school on Orient Way, near Garfield Pl. Estimated cost, $50,000. W. W. Rich, 43 Donaldson Ave., is Pres. of Bd.

Beaver Falls, Penn.—Bids will be received by the County Commissioners for the construction of a county building. Estimated cost, $105,000. H. B. Sharer is Arch.

New Castle, Penn.—Plans are being prepared by H. M. Wirsing for the construction of a school in the Seventh Ward. Estimated cost, $80,000.

Philadelphia, Penn.—Henon & Boyle, Fuller Bldg., is preparing plans for the construction of a building on Market and Mole St. Estimated cost, $50,000.

Pittsburgh, Penn.—Preliminary plans are being prepared for the construction of a seven-story, 120x240-ft. arcade building, on the site of the old St. Paul's Cathedral, for Henry C. Frick. Estimated cost, $3,000,000.

Pittsburgh, Penn.—According to press reports the Board of Education contemplates the construction of the Homewood-Brushton High School. Estimated cost, $700,000. C. L. Wooldridge is Bldg. Supt. of Bd.

South Bethlehem, Penn.—Plans are being prepared by J. R. Wilt, 104 Fourth St., Bethlehem, Penn., for the construction of a four-story, 34x100-ft. apartment house. Estimated cost, $40,000.

Washington, D. C.—Plans are being prepared by George N. Ray for the construction of a seven-story apartment house on New Hampshire Ave. and U. St. N.W., for William J. Kehoe. Estimated cost, $500,000.

+Nashville, Tenn.—The general contract for the construction of a club house at Belle Meade for the Nashville Golf and Country Club has been awarded to J. W. PATRICK & CO., Nashville. Estimated cost, $50,000. Noted Dec. 10, 1914.

+Louisville, Ky.—The general contract for the construction of a four-story building at Fourth St. between Chestnut St. and Broadway for B. Bernheim, has been awarded to A. MARCUM. Estimated cost, $100.000.

Cincinnati, Ohio—Plans are being prepared by Gaber & Woodward, Arch., for the construction of the East Hills High School on the Erkenbrecker Tract at Madison and Erie Ave. Estimated cost, $700,000.

+Cleveland, Ohio—(Official)—JOHN GILL & SON, 1301 Citizens Bldg., has been awarded the contract for the construction of additions and alterations to the New England Bldg., 627 Euclid Ave. Walker & Weeks, 1900 Euclid Ave., is Arch. Noted Feb. 25.

Cleveland, Ohio—S. H. Weis, Arch., 1030 Schofield Bldg., is preparing plans for the construction of a seven-story hotel on University Circle. Estimated cost, $1,000,000. J. S. Kohn, Engineers Bldg., is interested.

Cleveland, Ohio—Plans have been prepared by Richardson & Yost, Arch., 354 Rockefeller Bldg., for the construction of a two-story theater on Superior Ave. for the Mall Building Co. Estimated cost, $40,000.

Cleveland, Ohio—Plans are being prepared by A. F. Janowitz, Arch., Permanent Bldg., for the construction of six-story theater and commercial building on Euclid Ave. The estimated cost is $200,000. E. Mandelbaum is representing the owner.

Columbus, Ohio—Plans are being prepared by J. Upton Gribben, Arch., for the construction of an addition to the Indianola Methodist Episcopal Church. Estimated cost, $40,000.

Dayton, Ohio—Plans are being prepared by Thies & Thies, 208 South Ludlow St., for the construction of a three-story apartment house at Third St. and Western Ave. The estimated cost is $75,000.

Dayton, Ohio—Thies & Thies, 208 South Ludlow St., is preparing plans for the construction of a 10-story hotel at Fifth and Wilkinson St. The estimated cost is $200,000.

Dayton, Ohio—Bids were received by the Board of Education for the general construction of the Dayton View School at Cambridge, Yale and Euclid Ave., as follows: King Lumber Co., Charlottesville, Va., $127,000; A. Bentley

& Sons Co., $137,490; W. C. Handsley, Zanesville, $139,979; Structural Concrete Co., $140,500; McCullen & Vaughn Co., Hamilton, $142,812; Farrell Construction Co., Cincinnati, $143,315; A. M. Frey, Piqua, $143,572; C. H. Moses Construction Co., Chicago, $147,250; John Boren & Sons Co., $147,905; Engle & Gohn, $150,188; Ritchie & Wertz Co., $152,463; William E. Leopold, $153,255. The lowest bid for the heating was submitted by M. J. Gibbons, at $27,307

Lakewood, Ohio—The lowest bid received for the construction of a two-story library at Detroit and Arthur Ave. for the Board of Education was that of the C. N. Griffin Co., 3111 Carnegie Ave., Cleveland, at $40,000. Noted Jan. 21.

+Piqua, Ohio—The contract for remodeling the Piqua National Bank Bldg. has been awarded to T. A. GRAHAM. Estimated cost, $50,000. W. K. Shilling, Springfield, is Arch.

+Ripley, Ohio—The contract for the construction of a 10-room school has been awarded to JOHN A. JEWELL & SONS CO., Western Ave. and Hopple St., Cincinnati. The estimated cost is $40,000. Noted Dec. 10.

Sidney, Ohio—Plans have been prepared by W. F. Miller, Arch., for the construction of a three-story, 40x165-ft. office building for the Sterline-Kelsey Estate. The estimated cost is $100,000.

Toledo, Ohio—Bids were received by the Board of Education for the general construction of the Detroit Ave. School as follows: A. Bentley & Sons Co., $208,208 (construction complete), $161,161 (general construction only); Walls, Boch & Kuhlman, $175,000; H. J. Spieker Co., $184,330; E. H. Voss, $184,339; John Pioch Co., $196,968; King Lumber Co., Charlottesville, Va., $201,103. The lowest bid received for the heating was submitted by Eagan Bros. Co., at $15,351.

+Toledo, Ohio—The contract for the construction of a building for the Northern National Bank, Madison and Superior Ave., has been awarded to the A. BENTLEY & SONS CO. Estimated cost, $200,000.

Wilmington, Ohio—The citizens of the county voted on Feb. 17 to issue $300,000 in bonds for the construction of a county courthouse and jail.

Newcastle, Ind.—(Official)—P. H. Wolfard, Audr., informs us that the construction of a $40,000 county hospital has been abandoned. Noted Jan. 7.

Battle Creek, Mich.—Plans are being prepared by E. Jackson Casse, Arch., 53 West Jackson St., Chicago, Ill., for the construction of a five-story building for the City Bank. The estimated cost is $80,000.

Detroit, Mich.—Albert Kahn, Arch., Trussed Concrete Bldg., is preparing plans for the construction of an office building for the Michigan Smelting & Refining Co., 1685 Joseph Campau Ave. Joseph Sillman is Pres. and Gen. Mgr. and Charles A. Patch is Member of Bd. of Dir.

Detroit, Mich.—The University of Detroit, 363 Jefferson Ave., is having plans prepared by O. C. Gottesleben, Arch., 2224 Dime Bank Bldg., for the construction of a three-story, 100x200-ft. building. The estimated cost is $150,000. William F. Dooley, S. J., is Pres.

+Chicago, Ill.—(Official)—The contract for the construction of a 15-story building on State and Adams St. for Buck & Raynor has been awarded to HENRY ERICSSON CO., 100 South Dearborn St. Noted Feb. 18.

Chicago, Ill.—W. O. Goodman, 80 East Jackson Blvd., has purchased a site at Scott and North State St. Plans are being prepared for the construction of an apartment house to cost $150,000.

Chicago, Ill.—The Council voted to start work not later than Mar. 15 on removing the coach yards of the Baltimore & Ohio R.R. The site will be used for the construction of the Union Station. Estimated cost, $65,000,000. J. J Turner is Pres. of Union Station Co., and John F. Wallace is Chn. of Chicago Terminal Comn. Noted Feb. 4.

Chicago, Ill.—According to press reports, construction will be begun about May 1 on the 14-story, 40x100-ft. store and office building on Randolph and Dearborn St. for E. Eiger & Bros., 1249 Wabash Ave. The estimated cost is $350,000. Noted Feb. 25.

Chicago, Ill.—The Trustees of the Concordia Evangelical Lutheran Hospital will construct a hospital on Haddon Ave. near Kedzie Ave. The estimated cost is $100,000. E. W. Remke and George Leininger are Trustees.

Joliet, Ill.—W. C. Zimmerman, Arch., 64 East Van Buren St., Chicago, is preparing plans for the construction of a six-story reinforced-concrete building to be known as the D'Arcy Bldg., on North Chicago St., for J. W. D'Arcy. The estimated cost is $150,000.

Rock Island, Ill.—Plans are being prepared by Cyrus D. McLane, Arch., 215 Safety Bldg., for the construction of a jail. The estimated cost is $75,000.

Rock Island, Ill.—Olaf Z. Cervin, Arch., 401 Safety Bldg., is preparing plans for the construction of a school at Tenth Ave. and 12th St. Estimated cost, $50,000.

Springfield, Ill.—Plans are being prepared by William B. Ittner, Arch., 408 Board of Education Bldg., St. Louis, Mo., and George H. Helmle, Arch., 804 Ferguson Bldg., for the construction of a school. Estimated cost, $40,000. Plans are also being prepared for the remodeling of the high school, to cost about $275,000.

Springfield, Ill.—Navarre, Percival and Capital Lodges of the Knights of Pythias will construct a building. The estimated cost is $50,000.

Green Bay, Wis.—(Official)—The contract for the construction of the sanitarium for the Wisconsin Deaconess Hospital will be awarded Mar. 25. P. T. Benton, 605 Minahan Bldg., is Arch. Noted Feb. 4.

Green Bay, Wis.—R. C. Buchanan plans to construct a four-story commercial building at Walnut and Washington St. The estimated cost is $100,000.

Milwaukee, Wis.—The Ticonic Investment Co. will construct a 12-story building at Broadway and Mason St. to replace the Hathaway Bldg. The estimated cost is $900,000.

Milwaukee, Wis.—Plans have been prepared by Kirchoff & Rose, Arch., 1312 Majestic Bldg., for the construction of a theater to be known as the Palace Hippodrome, at Grand Ave. and Sixth St. The estimated cost is $350,000.

Milwaukee, Wis.—Bids will soon be received by E. Brielmaier & Sons Co., Arch. 111 Mason St., for the construction of an addition to the Convent of the Sisters of St. Francis. The estimated cost is $100,000.

Boone, Iowa—Plans are being prepared by Proudfoot, Bird & Rawson, Arch., Hubbell Bldg., Des Moines, for the construction of a six- or an eight-story office building at Eighth and Story St. for the First National Bank. The estimated cost is $140,000.

Independence, Iowa—Harry E. Netcott, Arch., has prepared plans for the construction of a two-story County Home. Estimated cost, $45,000.

DRAINAGE DITCHES, OTOE AND JOHNSON COUNTIES, NEB.

+Bids were received Jan. 11 by the County Auditor for constructing drainage ditches in Drainage District No. 1, Otoe and Johnson Counties. The bidders were as follows: (A) Engineers Estimate; (B) R. B. Gordon & Co., Salina, Ohio; (C) FRED M. CRANE, Omaha, Neb. (awarded contract); (D) Inter-Mountain Bridge & Construction Co., Tecumseh, Neb.; (E) W. M. Lane, Council Bluffs, Iowa; (F) Edward Peterson Co., Omaha, Neb.; (G) O. P. Herrick, Des Moines, Iowa; (H) Yale & Ragean, Chicago, Ill.; (I) Sternberg Bros., Pine Bluff, Ark.; (J) Munn-Reise Construction Co., Kansas City, Kan.; (K) W. E. Callahan Construction Co., Omaha, Neb.; (L) C. D. Campbell, Lincoln, Neb.; (M) Winston Bros., Minneapolis, Minn.; (N) D. C. Stephens, Buffalo, N. Y. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
193,565 cu.yd. excavation, Main Ditch	$0.08	$0.0698	$0.07	$0.065	$0.067	$0.0644	$0.0788	$0.082	$0.07	$0.076	$0.0745	$0.0533	$0.075	$0.073
233,109 cu.yd. excavation, Main Ditch	0.08	0.0698	0.07	0.065	0.067	0.0644	0.0788	0.0820	0.07	0.076	0.0745	0.0533	0.075	0.070
145,513 cu.yd. excavation, Main Ditch	0.08	0.0698	0.07	0.065	0.067	0.0644	0.0788	0.082	0.07	0.076	0.0745	0.0533	0.075	0.07
247,967 cu.yd. excavation, Main Ditch	0.08	0.0698	0.07	0.065	0.067	0.0644	0.0788	0.082	0.07	0.076	0.0935	0.0533	0.075	0.07
252,365 cu.yd. excavation, Main Ditch	0.08	0.0698	0.07	0.065	0.067	0.0644	0.0788	0.082	0.07	0.076	0.0935	0.0533	0.075	0.08
121,747 cu.yd. excavation, Cutoff Johnson Co., South Branch	0.12	0.0925	0.07	0.120	0.120	0.100	0.0788	0.130	0.11	0.076	0.1097	0.115	0.140	0.13
181,227 cu.yd. excavation, Otoe County, South Branch	0.08	0.0698	0.07	0.075	0.067	0.0644	0.0788	0.09	0.08	0.076	0.100	0.07⅜	0.105	0.10
6,591 cu.yd. excavation, Wilson Creek	0.110	0.099	0.07	0.090	0.100	0.090	0.0788	0.09	0.100	0.076	0.100	0.09¾	0.100	0.10
29,198 cu.yd. excavation, Spring Creek	0.12	0.099	0.07	0.120	0.120	0.110	0.0788	0.170	0.12	0.076	0.120	0.11½	0.125	0.12
79,892 cu.yd. excavation, Walnut Creek	0.12	0.099	0.07	0.090	0.110	0.090	0.0788	0.09	0.10	0.076	0.100	0.09¾	0.110	0.12
38,376 cu.yd. excavation, Muddy Creek	0.12	0.099	0.07	0.090	0. ¾	0.110	0.0788	0.09	0.11	0.076	0.11	0.09¾	0.100	0.11
7178 cu.yd. excavation, Lateral A	0.15	0.099	0.07	0.150	0.150	0.150	0.0788	0.12	0.13	0.076	0.14	0.120	0.150	0.15
3205 cu.yd. excavation, Lateral B	0.15	0.120	0.07	0.150	0.150	0.150	0.0788	0.17	0.13	0.076	0.14	0.150	0.150	0.15
1570 cu.yd. excavation, Lateral C	0.15	0.100	0.07	0.150	0.150	0.150	0.0788	0.12	0.13	0.076	0.14	0.150	0.150	0.15
5918 cu.yd. excavation, Lateral D	0.15	0.120	0.07	0.150	0.150	0.150	0.0788	0.12	0.13	0.076	0.14	0.07	0.10	0.15
12,347 cu.yd. excavation, Lateral E	0.15	0.099	0.07	0.150	0.150	0.130	0.0788	0.12	0.13	0.076	0.14	0.09¾	0.15	0.15
5952 cu.yd. excavation, Lateral F	0.15	0.120	0.07	0.150	0.150	0.150	0.0788	0.12	0.13	0.076	0.14	0.09¾	0.15	0.15
5000 cu.yd. excavation, Lateral G	0.15	0.080	0.07	0.150	0.150	0.150	0.0788	0.13	0.13	0.076	0.14	0.11¾	0.15	0.15
3000 cu.yd. excavation, Lateral H	0.15	0.080	0.07	0.150	0.150	0.150	0.0788	0.13	0.13	0.076	0.14	0.11¾	0.15	0.15
6750 sq.yd. excavation, River Clearing	0.30	0.250	0.25	0.300	0.300	0.30	0.250	0.35	0.15	0.20	0.45	......	0.30	0.30
600 cu.yd. Dillion Levee	0.15	0.120	0.07	0.150	0.15	0.150	0.0788	0.15	0.13	0.076	0.15	0.135	0.15	0.15
300 cu.yd. excavation, Panko Levee	0.15	0.120	0.07	0.150	0.15	0.150	0.0788	0.15	0.13	0.076	0.15	0.135	0.15	0.15
300 cu.yd. excavation, Poppe Levee	0.15	0.120	0.07	0.150	0.15	0.150	0.0788	0.15	0.13	0.076	0.15	0.135	0.15	0.15
Extended totals	$148,847	$125,502	$115,090	$126,840	$131,793	$121,908	$136,213	$149,919	$132,492	$125.553	$152,711	$110,590	$147,919	$143 494

Albert Lea, Minn.—Hoffman & Mosse, Arch., Rochester, is preparing plans for the construction of a five-story office building at Newton and William St. The estimated cost is $100,000. H. J. Harm is interested.

Albert Lea, Minn.—The Y. M. C. A. contemplates the construction of a building at West Clark and St. Mary's St. The estimated cost is $60,000.

Kansas City, Kan.—Bids will be received until Mar. 8 for the construction of an addition and for remodeling the Whittier School at Bocke St. and Ivandale Ave. W. A. Seymour is Clk. of Bd. of Education. Noted Dec. 10.

Lansing, Kan.—Plans have been prepared by Charles E. Chandler, State Arch., State House, Topeka, for the remodeling of the state prison. The estimated cost of the work is from $300,000 to $500,000.

Kearney, Neb.—(Official)—Bids will be received about May 15 for the construction of a $85,000 auditorium and gymnasium. A. L. Cavmist, Fairbury, is Secy. of Bd. of Education, Nebraska State Normal School. Noted Jan. 14.

Omaha, Neb.—The First Presbyterian Church plans to construct a building in the West Farnum District. The estimated cost is $150,000.

Carthage, Mo.—Eugene B. Clark, 1236 Madison Park, Chicago, Ill., will construct a six-story hotel. The estimated cost is $100,000.

Springfield, Mo.—Mrs. Otis Milligan plans to construct a six-story office building on South St. and Public Sq. The estimated cost is $100,000.

Dallas, Tex.—Plans are being prepared by Lang & Mitchell, Arch., for the construction of a ten-story building at Main and Martin St. for J. W. Crotty and associates.

Ft. Worth, Tex.—The School Board contemplates the construction of a high school for boys. The estimated cost is $300,000 to $350,000. George C. Clarke is Pres.

The Universal Portland Cement Co., Chicago, Ill., announces that Benjamin B. Affleck has been appointed Pres., and that Blaine S. Smith has been appointed to succeed him as Gen. Sales Mgr.

The W. D. Lewis Co., contractors, general office, 41 West 33rd St., New York, N. Y., has located its permanent branch office at 316 Ridge Bldg., Kansas City, Mo. E. S. Gallagher, Vice-Pres. of the company, is Manager-in-Charge of the Kansas City office. The Lewis Co. erected the building occupied by Child's Restaurant at 10th and Hain St., Kansas City, and is now building the Herr-Andres Bldg., Springfield, Mo.

The Lea-Courtenay Co., 90 West St., New York, N. Y., has opened an office in the Conway Bldg., Chicago, Ill. This company, which manufactures high-duty turbine pumping machinery, was formerly represented in that city by Maher & Bryne.

Galveston, Tex.—A. J. Bellis, Arch., is preparing plans for the construction of a three-story store and hotel building for J. C. League. Estimated cost, $40,000.

Wichita Falls, Tex.—Plans are being considered by the city and county authorities for the construction of a hospital. The estimated cost is $50,000.

Grants Pass, Ore.—Bids will soon be received by the Josephine County Court for the construction of a court house at Grants Pass. The estimated cost is $100,000. E. E. McClaran, Portland, is Arch.

Berkeley, Calif.—Bids will be received about Mar. 15 for the construction of a school to cost $42,000. Coxhead & Coxhead, Hearst Bldg., San Francisco, is Arch.

✚Fresno, Calif.—The contract for the construction of the main building, gymnasium and boiler house at the Fresno State Normal School has been awarded to the WINGET CONSTRUCTION CO., Los Angeles, at $248,641. Noted Jan. 28 and Feb. 18.

Los Angeles, Calif.—Plans are being prepared for the construction of an intermediate school. The estimated cost is $100,000.

Redondo Beach, Calif.—(Official)—Bids will be received about Mar. 20 by Allison & Allison, Arch., Hibernian Bldg., Los Angeles, for the construction of a high school to cost about $135,000. Noted Feb. 18.

✚San Francisco, Calif.—The Board of Public Works has awarded the general contract for the construction of the Polytechnic High School to P. F. REILLY CO., Weston Planing Mills, Berry near Sixth St., at $86,906. Noted Aug. 13 and Feb. 25.

San Francisco, Calif.—(Official)—All bids received for the construction of a pathological and garage building were rejected. New bids will soon be received. F. J. Churchill is Secy., Bd. of Pub. Wks. Noted Feb. 4.

The United States Purchasing Corporation, Woolworth Bldg., New York, announces that Eduardo de Abraga, who has been in this country as special delegate of the Ministry of Agriculture and the Ministry of Public Works in Brazil for more than a year, returned on Feb. 11. He will represent the company in Rio de Janeiro, and be prepared to make reports on the possibility of marketing American-made goods, especially electrical equipment.

Martin Cruikshank, Inc., 120 Liberty St., New York, N. Y., announces that Franklin H. Houge, Secretary of the company, is located in Washington and gives attention to the presentation of patent cases for the company and others in the Patent Office. A special feature of the company is the design and manufacture of automatic machinery.

SEDIMENTATION BASIN, PHILADELPHIA, PENN.

✚Bids were received Feb. 9 by the city for the construction of a sedimentation basin at the Torresdale Filters from (A) Carl R. Camp, (B) T. L. Eyre, (C) Keystone State Construction Co., (D) American Paving & Construction Co., (E) SNARE & TRIEST CO. (awarded contract). The item bids were as follows:

	A	B	C	D	E
600,000 cu.yd. earth excavation	$0.22	$0.34	$0.24	$0.30	$0.29
500 cu.yd. rock excavation	8.92	5.50	4.00	15.00	3.00
30,000 tons riprap, Class A	1.15	1.00	1.10	0.75	0.80
20,000 tons riprap, Class B	1.98	2.00	1.50	3.25	1.22
750 M. ft. b.m. timber and cribbing, Class A	47.12	46.00	53.00	48.00	42.00
2500 M. ft. b.m. timber and cribbing, Class B	41.51	36.00	48.00	48.00	39.00
6000 bbl. portland cement	1.30	1.50	1.50	1.25	1.20
3500 cu.yd. concrete, Class A	9.24	5.50	11.00	22.00	9.00
500 cu.yd. concrete, Class B	10.77	8.20	11.00	22.00	12.00
100,000 lb. reinforcing rods	0.037	0.04	0.05	0.04	0.027
70,000 lb. structural steel	0.033	0.04	0.05	0.06	0.027
75,000 lb. w.-i., c.-i. and steel fixtures	0.054	0.06	0.07	0.10	0.04
Furnishing and placing solution tank and piping (lump sum)	10,222.00	10,836.00	10,000.00	12,200.00	7,400.00
500 lin.ft. 4-in. water-supply pipe	1.82	1.50	1.00	1.00	0.70
Buildings and all accessories (lump sum)	21,176.00	26,595.00	25,000.00	22,000.00	21,000.00
5000 lin.ft. yellow-pine plumb piles	0.51	0.50	0.50	0.40	0.40
2300 lin.ft. railroad track (complete)	1.34	1.73	1.00	3.00	1.00
Hoist and conveyor in place (lump sum)	969.00	2,724.00	1,100.00	600.00	1,000.00
Pitometers and recorders in place (lump sum)	2,692.00	3,720.00	2,700.00	2,500.00	2,400.00
Four 48x72-in. sluice gates and frames in place (each)	375.86	1,230.00	420.00	400.00	450.00
Extended totals	$448,836	$500,924	$481,280	$590,500	$443,440

CANAL, PAYSON, UTAH

Bids were received Feb. 3 by the U. S. Reclamation Service, Provo, Utah, for constructing Division 4 of the high line canal, Strawberry project, from (A) Reynolds-Ely Construction Co., Springville, Utah; (B) Wasatch Grading Co., Salt Lake City, Utah; (C) H. G. Gilkerson, Salt Lake City, Utah; (D) Morrison-Knudsen Co., Boise, Idaho; (E) Utah Construction Co., Ogden, Utah; (F) Mendenhall, Straw & Bird Construction Co., Springville, Utah; (G) Jacobsen-Bade Co., San Francisco, Calif.; (H) Enoch Smith, Salt Lake City, Utah; (I) Intermountain Bridge & Construction Co., Tecumseh, Neb.; (J) Bates & Rogers Construction Co., Spokane, Wash.; (K) W. O. Morrison, Denver, Colo. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K
117,400 cu.yd. excavation, Class 1	$0.22	$0.125	$0.175	$0.145	$0.1385	$0.27¾	$0.21	$0.24	$0.215	$0.155	$0.16
24,100 cu.yd. excavation, Class 2	0.22	0.39	0.38	0.375	0.36	0.27¾	0.35	0.24	0.215	0.35	0.38
13,000 cu.yd. excavation, Class 3	0.22	0.84	1.00	0.90	0.85	0.27¾	0.75	0.75	0.85	0.90	0.98
10,000 yd. stones overhaul	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2500 cu.yd. excavation for structures Class 1	0.50	0.50	0.70	0.50	0.60	0.50	0.50	0.75	0.40	0.40	0.60
100 cu.yd. excavation for structures, Class 3	1.00	1.00	1.50	3.00	2.00	1.50	2.00	1.00	3.00	1.75	1.25
1250 cu.yd. concrete in structures	8.00	7.70	8.00	7.45	8.50	9.25	9.00	10.90	12.00	9.75	13.00
135,500 lb. placing reinforcing steel	0.005	0.015	0.015	0.034	0.01	0.005	0.02	0.005	0.015	0.01½	0.02
2200 cu.yd. backfilling	0.50	0.40	0.45	0.50	0.45	1.25	0.30	0.50	0.40	0.25	0.50
25 cu.yd. rockfill	1.35	1.25	2.00	2.00	1.50	1.50	2.00	1.00	2.00	2.00	2.50
100 sq.yd. paving	1.35	1.50	2.50	2.00	1.50	2.50	2.50	1.00	3.00	2.50	2.50
200 lin.ft. laying 6-in. vitrified pipe	0.08	0.10	0.15	0.15	0.15	0.10	0.25	0.10	0.25	0.18	0.18
100 lin.ft. laying 12-in. vitrified pipe	0.15	0.15	0.25	0.20	0.25	0.20	0.75	0.15	0.40	0.23	0.26
50 lin.ft. laying 18-in. vitrified pipe	0.25	0.25	0.35	0.30	0.35	0.40	1.25	0.20	0.60	0.35	0.48
50 lin.ft. laying 24-in. vitrified pipe	0.40	0.35	0.50	0.40	0.60	0.60	1.25	0.30	1.00	0.60	0.65
36 lin.ft. laying 36-in. c.i. pipe	1.50	0.45	1.00	1.00	1.00	0.90	2.00	2.00	5.00	1.50	5.50
462,000 sq.ft. 4-in. concrete canal lining	0.075	0.075	0.06¼	0.075	0.10	0.095	0.10	0.10	0.10	0.119	0.12
5300 sq.ft. 2½ concrete canal lining	0.07	0.07	0.06	0.065	0.10	0.085	0.09	0.10	0.10	0.119	0.09
Extended totals	$82,625	$84,365	$89,762	$89,895	$97,912	$104,214	$106,408	$108,274	$108,315	$110,207	$119,113

Contracts to Be Let

Bids received until Mar. 10, 1915.

Storm-Water Contract No. 42, Gwynn's Run Trunk Drain, Section No. 1

OFFICE OF THE SEWERAGE COMMISSION
OF THE CITY OF BALTIMORE

Baltimore, Feb. 17th, 1915.

SEALED PROPOSALS, in duplicate, indorsed "Proposal for building Gwynn's Run Trunk Drain, Section No. 1, Stormwater Contract No. 42," addressed to the Board of Awards of Baltimore City, will be received at the office of the City Register, City Hall, Baltimore, Md., until 11 A.M. Wednesday, March 10, 1915, for building Section No. 1 of the Gwynn's Run Trunk Drain, as shown on plans on file in the office of Mr. Calvin W. Hendrick, Chief Engineer of the Sewerage Commission.

Specifications and plans can be obtained upon application at the office of the Secretary of the Commission, 904 American Building, on and after Tuesday, February 23rd, 1915.

A charge of $5.00 will be made for each set of specifications and plans, which charge will be refunded upon the return on or before March 10th, 1915, of the unused specifications and blueprints in good condition, or upon the return of the General Specifications and plans in case a bid is submitted.

A certified check of the bidders on a clearing house bank, in the sum of $3,000.00, made payable to the order of the Mayor and City Council of Baltimore, will be required to be deposited with each bid.

Approximate Quantities.

1,200 feet 15'x12'6" drain.
150 feet 18'x12'6" drain.
665 feet excavated outlet channels.
8,300 cu.yds. of earth excavation.
700 cu.yds. of rock excavation.
4,750 cu.yds. of concrete.
310 cu.yds. of brick masonry.
250,000 pounds of reinforcing steel.

The successful bidder on this contract will be required to give bond and comply with the City Charter respecting contracts.

The Board of Awards reserves the right to reject any and all bids.

By order of the Sewerage Commission:
CHARLES ENGLAND, Chairman.
HARRY W. RODGERS, Secretary.
Approved: February 17, 1915.
JOHN HUBERT,
Acting President, Board of Awards.

⁂

Bids received until April 1, 1915.

Disposal of Garbage

Wilmington, Delaware.

Sealed proposals, accompanied by plans and specifications for the disposal of garbage of the City of Wilmington, Delaware, will be received by the Board of Health, at their office, 6th and King Sts., until 3 p.m. April First, 1915, at which time and place the proposals will be opened and publicly read.

The contract to be let, will be for a term of Nine years, beginning June First, 1915. The amount of garbage to be disposed of, approximates, 14,000 tons, yearly.

Each proposal submitted, must be accompanied by a certified check upon a Bank or Trust Company doing business in the City of Wilmington, Delaware for the sum of Five Hundred Dollars ($500), drawn to the order of the Mayor and Council of Wilmington, Delaware.

General specifications and bidding blanks may be obtained from Mr. J. Austin Ellison, Secretary of the Board of Health after March First, 1915.

The right is reserved to award the contract under that proposal, the acceptance of which will in the judgment of the Board of Health best secure the efficient performance of work and to reject any or all bids.

BOARD OF HEALTH,
J. Austin Ellison, Secretary.

Bids received until Mar. 15, 1915.

Street Paving

Steelton, Pennsylvania.

Sealed proposals will be received by the Town Council of the Borough of Steelton, Pennsylvania, at the Council Chamber until 7:30 P.M., Monday, March 15th, 1915, to be opened at a special meeting of the Town Council to be held at the said time and place for the subgrading, paving and curbing of the following streets:

South Third Street from Highland to DuPont, Highland Street from Second to Third and Conestoga Street from Front to Christian Street.

Plans, specifications, form of proposal and form of contract can be had from the Borough Secretary upon the payment of $10.00, which will be refunded upon the return of plans and specifications in good condition.

No proposal will be considered unless accompanied by a certified check made payable to LeRoy H. Sutton, Borough Treasurer, conditioned on the entering into by the successful bidder of a contract in accordance with the specifications and form provided, and furnishing a bond with at least two sureties, or some surety company acceptable to the Town Council, in the sum of approximately twenty-five per cent. (25%) of the cost of the work as set out in detail for each job in the specifications, conditioned for the faithful performance of all terms and conditions of said contract, the form of said bond to be approved by the Borough Solicitor; also maintenance bond conditioned as set forth in the contract and specifications. The amount of the certified checks shall be as follows: Highland Street, $100.00; South Third Street, $500.00; Conestoga Street, $600.00. In the event that the bid covers all of the streets to be paved the certified check shall be in the sum of $1,200.00.

The Town Council reserves the right to reject any or all bids or any part thereof.

Foreign corporations desiring to make bids should be registered in the office of the Secretary of the Commonwealth, as required by the Act of June 8th, 1911, and have a bona fide resident agent in this state with a fixed office, and as a further precaution to the Borough of Steelton, the successful bidder, if a foreign corporation, may at the option of the Town Council be required to empower some person or company satisfactory to the Town Council to accept service for said successful bidder during the term of the contract and bond.

CHAS. P. FEIDT, Borough Secretary.

⁂

Bids received until Apr. 13, 1915.

Automatic Valves and Check Valves

DEPARTMENT OF WORKS.

Toronto, Ont.

Tenders will be received by registered post only, addressed to the Chairman of the Board of Control, City Hall, Toronto, Canada, up to noon on Tuesday, April 13th, 1915,

For the Supply of
Automatic Valves and Check Valves.

Specifications and Tender Form for the foregoing may be obtained upon application at Room 12, Purchasing and Accounting Section, of the Department of Works, City Hall, Toronto.

Envelopes containing tenders must be plainly marked on the outside as to contents.

The usual conditions relating to tendering as prescribed by City By-law must be strictly complied with, or the tenders may be declared informal.

Tenderers shall submit with their tenders the names of two personal sureties, approved by the City Treasurer, or in lieu thereof, the bond of a guarantee company, approved as aforesaid.

The lowest or any tender not necessarily accepted.

T. L. CHURCH (Mayor),
Chairman, Board of Control.
Toronto, February 8th, 1915.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

FEBRUARY BUILDING OPERATION

A marked improvement in building operations is shown in the Eastern States. There is a gain of 17.8% in February in the building operations in 23 cities of this year over last year. There is also a gain of 16.4% for the first two months of this year over the corresponding period of last year. The Borough of Manhattan alone shows an increase of $3,000,000 in February over the corresponding month last year. While there is a falling off in the Middle West, it is not as great as was recorded in January. The reason for the decrease in building in the Western States this year is that plans were filed in 1914 for many buildings in connection with the Panama-Pacific Exposition.

In the following list is given the contemplated building operations from plans filed with the various building departments:

EASTERN STATES

	Month of February		First Two Months of Year	
	1915	1914	1915	1914
Albany, N. Y.	$277,115	$200,650	$617,405	$349,715
Baltimore, Md.	896,450	417,743	1,471,522	896,533
Boston, Mass.	1,375,810	2,643,762	6,978,401	6,890,777
Bridgeport, Conn.	237,495	154,682	335,605	281,077
Buffalo, N. Y.	307,000	395,000	688,000	931,000
Elizabeth, N. J.	40,184	23,210	122,498	71,082
Hartford, Conn.	151,600	99,165	290,865	356,052
Hoboken, N. J.	6,690	178,084	331,690	241,564
Jersey City, N. J.	319,154	318,301	456,954	406,801
Newark, N. J.	955,391	1,247,933	1,295,099	1,601,147
New Bedford, Mass.	92,925	111,825	168,485	480,780
New Haven, Conn.	674,855	291,754	807,010	556,074
New York, N. Y.				
Bronx	2,549,100	1,195,980	4,621,350	2,512,830
Brooklyn	1,536,150	3,058,675	2,909,245	5,517,965
Manhattan	4,982,900	1,766,815	12,813,000	5,277,915
Queens	1,498,302	517,410	2,140,926	1,590,917
Paterson, N. J.	57,217	65,378	131,112	95,319
Philadelphia, Penn.	2,574,730	1,794,905	3,485,535	3,042,890
Pittsburgh, Penn.	608,644	2,010,568	1,074,105	3,181,605
Reading, Penn.	102,275	95,750	108,175	510,725
Rochester, N. Y.	382,607	372,957	629,324	727,277
Scranton, Penn.	42,600	64,720	80,770	166,654
Springfield, Mass.	692,795	292,765	958,800	455,285
Syracuse, N. Y.	160,383	52,045	380,098	120,745
Utica, N. Y.	7,975	19,050	61,575	62,650
Worcester, Mass.	81,855	104,820	159,131	635,004
Totals	$20,612,202	$17,493,956	$43,116,680	$36,961,292

SOUTHERN STATES

	1915	1914	1915	1914
Atlanta, Ga.	$471,961	$335,391	$745,757	$656,356
Birmingham, Ala.	136,710	216,455	208,888	466,685
Chattanooga, Tenn.	33,110	108,925	62,252	164,095
Dallas, Tex.	324,185	564,220	464,190	981,970
Ft. Worth, Tex.	45,625	243,063	136,330	422,328
Houston, Tex.	129,934	328,275	288,478	507,246
Louisville, Ky.	283,220	163,860	560,640	467,140
Memphis, Tenn.	101,735	275,455	203,688	636,845
New Orleans, La.	97,323	204,794	244,322	408,845
Norfolk, Va.	172,730	96,835	292,594	217,600
Richmond, Va.	259,184	270,567	419,024	460,271
San Antonio, Tex.	113,595	577,950	204,925	895,815
Tampa, Fla.	50,735	109,820	103,915	260,315
Washington, D. C.	890,833	793,241	1,361,161	1,255,001
Totals	$3,110,880	$4,288,851	$5,296,164	$7,800,512

MIDDLE WEST

	1915	1914	1915	1914
Akron, Ohio	$99,060	$198,530	$144,695	$336,680
Canton, Ohio	39,550	37,250	70,725	48,470
Chicago, Ill.	4,701,500	5,097,900	9,029,400	9,824,800
Cincinnati, Ohio	499,645	316,515	950,995	897,425
Cleveland, Ohio	1,733,925	1,398,010	2,850,005	2,696,635
Columbus, Ohio	153,350	225,915	238,450	404,655
Davenport, Iowa	29,340	352,950	55,795	418,370
Des Moines, Iowa	65,145	126,300	117,395	164,700
Detroit, Mich.	1,307,215	3,020,850	2,428,495	5,657,110
Duluth, Minn.	89,647	147,470	179,802	384,980
Grand Rapids, Mich.	104,300	82,095	184,372	423,335
Indianapolis, Ind.	307,750	292,938	574,657	775,280
Kansas City, Kan.	55,150	43,125	90,840	100,995
Kansas City, Mo.	896,330	1,053,950	1,284,210	1,938,215
Milwaukee, Wis.	409,056	578,382	612,705	921,240
Minneapolis, Minn.	811,495	498,005	1,296,595	1,002,510
Omaha, Neb.	84,100	221,175	249,175	401,615
Peoria, Ill.	51,750	45,600	227,750	217,800
St. Louis, Mo.	701,062	908,083	1,795,735	1,762,205
St. Paul, Minn.	797,054	371,444	1,496,312	885,756
Toledo, Ohio	454,607	606,400	991,904	841,294
Youngstown, Ohio	79,650	84,740	152,900	154,107
Totals	$13,470,681	$15,707,727	$25,022,912	$30,258,177

WESTERN STATES

	1915	1914	1915	1914
Denver, Colo.	$165,070	$206,205	$342,705	$435,523
Los Angeles, Calif.	560,697	1,455,730	1,421,057	2,637,976
Oakland, Calif.	288,311	387,020	544,984	645,715
Portland, Ore.	311,740	605,530	684,430	1,050,130
Salt Lake City, Utah	147,705	112,600	233,355	234,450
San Diego, Calif.	84,065	162,098	353,400	527,183
San Francisco, Calif.	807,936	4,574,280	1,676,733	11,924,006
Seattle, Wash.	353,880	553,205	762,465	1,750,875
Spokane, Wash.	21,525	24,125	113,710	58,1[illegible]0
Tacoma, Wash.	56,751	167,722	116,349	270,825
Totals	$2,797,686	$8,240,514	$6,250,298	$19,540,945

RAILWAYS

New Jersey—Pennsylvania & Atlantic R.R.—Articles of consolidation merging the Philadelphia & Long Branch R.R., the Pemberton & Hightstown R.R., and the Kinkora & New Lisbon R.R. into a new company of the above name, have been filed at Trenton, N. J.

North Carolina—Southern Ry.—Surveys are being made by this company for the enlargement of its yards at Pomona, N. C. W. H. Wells, Washington, D. C., is Ch. Engr. Constr.

Georgia—Georgia Lumber Co.—Plans are being considered by this company for the extension of its railway for several miles. J. S. Moreton, Hyromville, Ga., is Mgr.

✚Georgia—Ocilla Southern Ry.—This company has awarded the contract for the construction of the extension of its line from Rochelle to Pope City, about 7½ miles, to MARTIN TANKERSLEY.

Florida—Fort Myers, Marco Bay & Miami Ry.—Contracts will soon be awarded by this company for the construction of a railway from Fort Myers, Fla., via Naples and Marco Bay to Everglade, thence east across southern Florida to Miami, about 150 miles. W. B. Clay, Arcadia, Fla., is Ch. Engr.

Mississippi—New Orleans, Mobile & Chicago R.R.—According to press reports this company contemplates the construction of an extension from Estes, Miss., to Talla Haga and Noxapater Swamp. B. V. Wright, Laurel, Miss., is Ch. Engr.

Tennessee—Nashville, Chattanooga & St. Louis R.R.—This company has had plans prepared for the construction of an extension of its line from Antwerp to Estill Springs, about eight miles. H. McDonald, Nashville, Tenn., is Ch. Engr.

Wisconsin—Cashton & Hillsboro R.R.—This company has applied to the State Railroad Commission for permission to construct an extension from Cashton to Richland Center, about 28 miles. M. M. Cash, Cashton, is Pres.

Hawaii—Lihue Plantation Co.—This company is preparing plans for the construction of a railroad on Kauai Island. Estimated cost, $250,000.

ELECTRIC RAILWAYS

Webster, Mass.—The Worcester & Webster St. Ry. Co. has applied to the City Council for a franchise to construct an electric railway in Webster. F. H. Dewey, Worcester, is Vice-Pres.

Depew, N. Y.—The Buffalo & Depew Ry. Co. will soon award contracts for the construction of a two-mile extension to its line. George A. Ricker, Buffalo, is Ch. Engr.

Collegeville, Penn.—The Perkiomen Traction Co. is making preliminary arrangements for the construction of an electric railway from Collegeville to Schwenkville.

Hazleton, Penn.—The Wilkes-Barre & Hazleton Ry. Co. contemplates an expenditure of $600,000 for double-tracking its entire system. C. B. Houck, Hazleton, is Vice-Pres., Gen. Mgr. and Pur. Agt.

McConnellsburg, Penn.—The McConnellsburg & Ft. Loudon Ry. Co. has been granted a charter to construct an electric railway from McConnellsburg to Ft. Loudon, about ten miles. The incorporators include: E. J. Post, Washington, D. C., and G. A. Harris, B. C. Lamberson, J. L. Patterson, McConnellsburg; H. A. Duffy and D. H. Patterson, Webster Mills. Noted Feb. 11.

Charleston, S. C.—The Charleston-Isle of Palms Traction Co. has been granted permission to construct an extension of its line across the Government Reservation on Sullivan Island. James Sottile, Charleston, is Pres.

St. Petersburg, Fla.—Preliminary arrangements are being made by the St. Petersburg & Gulf Ry. Co. for the extension of its line on 22nd St. to the ball park at Coffee Pot Bayou. W. M. Mosedale, St. Petersburg, is Ch. Engr.

Rayville, La.—The Rayville Progressive League is having surveys made for the construction of a 21-mile electric railway south from Rayville. Theodore J. Coenen is Pres. of the League.

Cleveland, Ohio—The City Council has granted a franchise to the Cleveland Ry. Co. to extend its double track line on Clark Ave. George L. Radcliffe, Cleveland, is Gen. Mgr.

Lafayette, Ind.—The Lafayette & Northwestern Ry. Co. will be ready to start work sometime in April on the construction of its proposed electric railway to connect Lafayette, Rensselaer, Hammond, Princeton, Round Grove and West Point, Ind., and Chicago, Ill. O. L. Brown is Gen. Mgr.

Benton Harbor, Mich.—Henry Deam and Charles Sutherland, Sister Lakes, Mich., are interested in the construction of an electric railway to connect Benton Harbor, Sister Lakes and Keeler.

Harrisburg, Ill.—The Southern Illinois & St. Louis Ry. Co. is planning to start work soon on the construction of an electric railway to connect Harrisburg, Belleville, Duquoin, Herrin, Johnson City and East St. Louis.

Lee Center, Ill.—The Lee County Central Electric Ry. Co. contemplates the extension of its lines north to Ashton, Rochelle or DeKalb and south to Princeton.

Peoria, Ill.—The Allen Engineering Co. has been retained by the Peoria & Chillicothe Electric Ry. Co. to make surveys for its proposed electric railway from Peoria to Chillicothe. Arthur C. Black and E. V. Mattice are interested. Noted Mar. 4.

Kalispell, Mont.—The construction of an electric railway from Kalispell, Mont., to Spokane, Wash., is under consideration. Amos L. Thompson, Libbey, Mont., is interested.

Arcadia, Calif.—The Humboldt Transit Co. is securing the right-of-way for the construction of an extension to its line to Arcadia. F. C. Morrison, Eureka, is Gen. Mgr. and Pur. Agt.

Meridian, Calif.—The Northern Electric Ry. Co. is preparing plans for the reconstruction of its line from Meridian to Colusa, which was recently damaged by floods. W. A. McGovern, Chico, is Gen. Mgr.

LIGHT, HEAT AND POWER

Waterbury, Conn.—Bids will be received by the Board of Education until 5 p.m., Mar. 13, for the heating and ventilating plant and the mechanical equipment for the Clark School on Scovill St. Louis A. Walsh, 51 Leavenworth St., is Arch. and R. D. Kimball & Co., Boston, Mass., is Engr.

★Kings Park, N. Y.—(Official)—Bids will be received until 2:30 p.m., Mar. 18, by the State Hospital Commission, Capitol, Albany, for heating, plumbing and electrical work in a new building for chronic patients at Kings Park State Hospital. Lewis F. Pilcher is State Arch. E. S. Elwood is Secy. of the State Hospital Comn.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 3 p.m., Mar. 15, by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., for electrical work in Public School No. 5, Tillary, Bridge and Lawrence St., and Public School 158, Belmont Ave., Ashford and Warwick St., Borough of Brooklyn.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were opened Feb. 24 by the Board of Trustees, Bellevue and Allied Hospitals, for electrical work, additional gas piping, etc., in the main building of the Harlem Hospital as follows: Lord Electric Co., $4880; A. J. McCullough, $4495; Frank Nebeling, $4401; E. J. Electric Co., $4625. Noted Jan. 21, Feb. 4 and 18.

Riverhead, N. Y.—The Riverhead Electric Light Co. contemplates the installation of one 19x20-in. Skinner universal engine directly connected to a 140-kw. two-phase 60-cycle 2300-volt generator. F. Carl Hallett is Mgr. and Supt.

✚Butler, N. J.—The Borough Council has awarded the contract for the installation of a municipal electric-light plant to the WATSON-FLAGG ENGINEERING CO., 27 Thames St., New York, N. Y. The cost of the work will be about $50,000. Noted Feb. 4.

Brownsville, Penn.—Press reports state that the H. C. Frick Coke Co. is having surveys made with a view to securing options on power sites along the Monongahela River. It is understood that a power plant to supply energy to the 63 plants owned and operated by the H. C. Frick Coke Co. will be built.

Blackville, S. C.—(Official)—Bids will be received until Mar. 15 for improvements to the electric-light plant in Blackville. J. M. Farrell is Chn. of the Bd.

Pablo Beach, Fla.—See item under "Sewers."

Lake Charles, La.—The City Council has granted a franchise, so it is reported, to W. E. Barrett for the construction of a gas manufacturing plant and distributing system in Lake Charles. Andrew Cook is City Clk.

Holland, Mich.—The Board of Public Works is considering the construction of a new fireproof power house for the municipal electric-light plant to replace the present building on East Fifth St. The estimated cost is $25,000. H. Naverhuis is City Engr.

Ashland, Wis.—The Board of Supervisors of Ashland County has engaged Vaughn, Meyer & Sweet, 1007-1009 Majestic Bldg., Milwaukee, to prepare plans and award contracts for all electrical work and fixtures for the new $275,000 court house now in course of construction .

✚Blackcreek, Wis.—The Village Board has awarded the contract for the installation of a municipal electric-light plant to the FOSS GAS ENGINE CO., Springfield, Ohio.

✚Manitowoc, Wis.—The C. Reiss Coal Co. has awarded the contract for the construction of an electric power plant at its coal dock, Manitowoc, to the ALLIS-CHALMERS CO., Milwaukee. The unit includes a steam engine and a 450-kw. generator. The contract for a new coal-handling bridge and other alterations in the dock has been awarded to the MEAD-MORRISON MFG. CO., Boston, Mass. Noted Dec. 10.

Markesan, Wis.—The Markesan Electric Co., recently incorporated with a capital stock of $15,000, will, it is reported, equip an electric-light plant.

Poynette, Wis.—A franchise has been granted to the Poynette Electrical Co. to construct and operate an electric-light and power plant for commercial purposes. Water rights have been secured, and generating equipment will be installed and transmission lines built. Perry L. Speed is Pres. of the company.

Buffalo, Iowa—The citizens have voted in favor of issuing $10,000 in bonds to be used for the installation of a municipal electric-light plant.

Council Bluffs, Iowa—It is reported that the City Council is considering the installation of a municipal electric-light plant. E. E. Spetman is City Engr.

Schleswig, Iowa—At a recent election, the citizens voted in favor of issuing $16,000 in bonds, the proceeds of which will be used for the installation of a municipal electric-light plant. B. M. Ambresen is City Clk. Noted Feb. 4.

La Crosse, Kan.—R. M. Wilson, Sterling, Kan., has bought the municipal electric-light plant from the city, and has agreed to equip and operate a $6500 ice plant in connection with the lighting system.

Chadron, Neb.—Press reports state that the Chadron Ice & Creamery Co. is considering the construction of an electric-light plant and ice factory at a cost of about $60,000. C. P. Coffee is Pres.

Minto, N. D.—It is reported that plans are under consideration for the installation of an electric-light plant in Minto. Energy to operate the system will be secured from the municipal plant in Grafton.

Cumby, Tex.—It is reported that the Cumby Electric Light Co. will rebuild its power and light plant which was recently destroyed by fire.

✚Galveston, Tex.—The Board of City Commissioners has awarded the contract for heating and plumbing equipment in the new city hall to the COMPTON PLUMBING CO., Galveston, at $16,965. Other bidders were: C. C. Hartwell Co., New Orleans, $16,487, and Kennison Bros., Dallas, and the Warren Co., Houston, $16,648. John D. Kelly is City Clk.

Roxton, Tex.—It is reported that the Texas Power & Light Co., Dallas, will install an electric-light plant in Roxton. F. R. Slater, Dallas, is Gen. Supt. Texas Power & Light Co.

Loveland, Colo.—At the election to be held Apr. 6 the citizens will vote on the question of issuing bonds to be used for the construction of a municipal electric-light plant. The estimated cost is $79,000.

Lewiston, Idaho—The Lewiston-Clarkston Transit Co. has been incorporated for the purpose of constructing and maintaining electric transmission lines from Lewiston to Orchard Tracts, thence to Asotin, Wash., through Clarkston, Wash. The company has a capital stock of $500,000. Among those interested are: A. G. Nortz, Pres., E. H. Nortz and Eugene Z. Cox. H. C. Hartung will have charge of the construction work.

Washtucna, Wash.—The Washtucna Electric Light & Power Co. plans, during the coming summer to build a concrete penstock and install a new water turbine. Robert E. Mulligan is Mgr., Supt. and Cont. Agt.

Long Beach, Calif.—The Long Beach Consolidated Gas Co. has applied for permission to issue $100,000 in bonds, the proceeds of which will be used for extensions and improvements to the plant.

BRIDGES

Northampton, Mass.—The Commissioners of Hampshire County have voted to repair the Connecticut River Bridge at a cost of about $50,000, and have engaged John R. Worcester & Co., 79 Milk St., Boston, to take charge of the work. Noted Dec. 18, 1913, Jan. 7 and Feb. 18, 1915.

West Groton, Mass.—(Official)—Bids will be received until Mar. 29 by the towns of Shirley and Groton for the construction of a bridge over the Squannacook River at West Groton. Burtis S. Brown, 88 Broad St., Boston, is Engr. in Charge.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until 2 p.m., Mar. 18, by F. J. H. Kracke, Comr. of Bridges, Municipal Bldg., Borough of Manhattan, for additions and repairs to the south approach of the Fresh Kills Bridge over Richmond Creek, Borough of Richmond.

Far Hills, N. J.—It is reported that the Board of Chosen Freeholders of Somerset County, Somerville, has decided to build a reinforced-concrete bridge over the North Branch River between Bernards and Bedminster Townships. It will be 27 ft. wide with a 6-ft. walk.

Hightstown, N. J.—Press reports state that the Board of Chosen Freeholders of Mercer County, Trenton, has ordered the County Engineer to prepare plans for rebuilding the Main St. Bridge at Hightstown. Theodore Tobish, Trenton, is County Engr.

Mount Holly, N. J.—(Official)—The Board of Chosen Freeholders of Burlington County received bids for repairs to the Mullica River Bridge as follows: Kelley-McFeeley Co., Camden, $99,900; E. S. Bader, Atlantic City, $92,000; Bridgeton Construction Co., Bridgeton, $84,700; Atlantic Construction & Supply Co., Atlantic City, $93,000; Edward Fay & Son, Philadelphia, Penn., $74,812. The lowest bids received for the construction of a concrete bridge at Medford and for a concrete bridge at Bucks Cove were those of Rees & Taylor, Trenton, at $2699 and $1798 respectively. James Logan is County Engr.

Somerville, N. J.—The Board of Chosen Freeholders of Somerset County will, according to press reports, replace the Blackwells Mills Bridge between Hillsborough and Franklin Townships with a steel I-beam bridge. It will be about 103 ft. long with a 30-ft. roadway.

Somerville, N. J.—The Board of Chosen Freeholders has instructed the County Engineer to prepare plans for a concrete arch to be built over Peters' Brook on Cliff St. It will be a 60-ft. span with a 30-ft. roadway and two 10-ft. sidewalks.

Trenton, N. J.—(Official)—Bids will be received until 2:30 p.m., Mar. 23, by the Board of Chosen Freeholders of Mercer County for the construction of a 60-ft. reinforced-concrete bridge over Sanhican Creek at Lee Ave., Trenton. It will be 50 ft. wide, including two 10-ft. sidewalks. The estimated cost is $11,500. Theodore Tobish is County Engr. Noted July 2, Sept. 17 and Dec. 31, 1914.

Meadville, Penn.—(Official)—Bids will be received until Mar. 27 by the Supervisors of East Mead Township at the election house, East Mead Township, for the construction of a concrete bridge. Plans on file with the County Commissioners of Crawford County, Meadville.

Bowling Green, Va.—(Official)—Bids will be received until noon, Mar. 18, by the Clerk of the Circuit Court of Caroline County, for the construction of a 70-ft. steel bridge, concrete substructure, over the North Anna River between Caroline and Hanover Counties. The Childrey Co., Richmond, is Engr.-in-Charge.

Burdette, Va.—Bids will be received until Mar. 13 by the Clerk of the Circuit Court of Southampton County, Courtland, for the construction of a 55-ft. steel bridge near Burdette.

Courtland, Va.—Bids will be received until Mar. 13 by the Clerk of the Circuit Court of Southampton County, for the construction of a 125-ft. steel bridge near Scotts Siding. G. P. Coleman, Richmond, is State Highway Comr.

★Lake Charles, La.—(Official)—Bids will be received until 10 a.m., Apr. 6, by the Police Jury of Calcasieu Parish for the construction of a steel highway swing bridge over Black Bayou on Highway No. 4. E. C. House is Clk. of the Police Jury. For further information, see advertisement under "Contracts To Be Let."

New Orleans, La.—The New Orleans Ry. & Light Co. has entered into an agreement with the city to build a new foot bridge across the New Basin at West End just north of the present bridge. W. J. Hardee is City Engr. M. S. Sloan is Mgr. of the New Orleans Ry. Co. Noted Oct. 1.

Rogersville, Tenn.—(Official)—Bids will be received until Mar. 20 by the Bridge Committee of Hawkins County for the construction of a steel bridge, concrete masonry substructure, about 1600 ft. long, across the Holston River at a point in Hawkins County on the Virginia & Southwestern Ry. Albert Lyons is Chn. of the Bridge Com.

✚Bowling Green, Ky.—(Official)—The Fiscal Court of Warren County received the following bids for the superstructure of a three-span bridge, 289 ft. long and 18 ft. wide; VINCENNES BRIDGE CO., Vincennes, Ind., $6348 (awarded contract); East St. Louis Bridge Co., East St. Louis, Ill., $6522; Miller & Borcherding, St. Louis, Mo., $6525; Louisville Bridge Co., Louisville, $6662; Oregonia Bridge Co., Lebanon, Ohio, $6700; Central States Bridge Co., Indianapolis, Ind., $6975; Virginia Bridge & Iron Co., Roanoke, Va., $7170; Missouri Bridge Co., St. Louis, $7726; Meserve Bridge Co., Cincinnati, Ohio, $8557; W. T. Young Bridge Co., Nashville, Tenn., $8962. The contract for repairing the piers of the old bridge was awarded to MURPHY BROS., Bowling Green. M. H. Crump is County Rd. Engr. Noted Feb. 11.

Ashtabula, Ohio—It is reported that the Board of Commissioners of Ashtabula County, Jefferson, is considering the construction of a bridge over Ashtabula Creek between Ashtabula and Plymouth Townships.

Canton, Ohio—The Board of Commissioners of Stark County contemplates the construction of a bridge over East Creek at Eighth St., Canton. M. V. Crowl is a member of the Bd.

Cleveland, Ohio—(Official)—Bids will be received until 10 a.m., Mar. 20, by the Board of Commissioners of Cuyahoga County for bridge work on Green Rd. No. 1 and on Station Rd. E. G. Krause is Clk. of Comrs.

✚Cleveland, Ohio—It is reported that the contract for the construction of the steel superstructure, east and west sections, of the Clark Ave. Viaduct, has been awarded to the KING BRIDGE CO., Cleveland, at $487,860. Other bidders were: McClintic-Marshall Co., Pittsburgh, Penn., $513,240; American Bridge Co., New York, N. Y., $525,460; Strobel Steel Construction Co., Chicago, Ill., $584,680. Noted Feb. 4.

Hamilton, Ohio—(Official)—We are advised by Fred M. Hammerle, Engr. of Butler County, that new bids for the construction of the Woodsdale Bridge will be received about Apr. 17. It will be of concrete, six 100-ft. spans. The estimated cost is $85,000. The contract for this bridge was awarded a few months ago to the A. J. Yawger Co., Indianapolis, Ind., but a recent court decision declared the award invalid. W. W. Crawford is County Audr. Noted Feb. 25.

✚Port Washington, Wis.—The contract for the construction of a bridge at Grand Ave., Port Washington, has been awarded to JOSEPH UEBBING, Port Washington. The structure will be of concrete.

✚Anamosa, Iowa—(Official)—The Board of Supervisors of Jones County has awarded the contract for the construction of Bridge No. 96 to WILLIAM FLAHERTY, Anamosa, at $2139; the contracts for Bridges Nos. 107, 109 and 110 to V. L. HAUSSEN, Monticello, Iowa, at $3374 for the three. Noted Feb. 25.

Des Moines, Iowa—The Board of Supervisors of Polk County has ordered the County Engineer to prepare plans at once for 14 new bridges to replace those destroyed by the recent floods and ice jams. They will be built under the Supervision of the State Highway Commission.

New Hampton, Iowa—Bids will be received until 1:30 p.m., Apr. 7, by P. E. McGinn, Audr. of Chickasaw County, for the construction of five steel truss bridges and structural steel for 10 I-beam bridges.

Vinton, Iowa—The Board of Supervisors of Benton County has passed a resolution of necessity for the construction of a 60-ft. concrete arch with 24-ft. roadway, in Canton Township to replace the present Pearl St. Bridge over Bear Creek, Shellsburg. The estimated cost is $6000.

Minneapolis, Minn.—(Official)—Bids will be received until 11 a.m., Mar. 15, by the Board of Commissioners of Hennepin County for removing old Bridge No. 339 and constructing a new bridge in its place over County Ditch No. 10, Rd. No. 83. A. P. Erickson is County Audr.

✚Elk Point, S. D.—(Official)—The Commissioners of Union County have awarded the contract for the construction of county bridges during 1915 to the WESTERN BRIDGE & CONSTRUCTION CO., Omaha, Neb. Edward Holden is County Audr. Noted Jan. 7.

✚Parker, S. D.—(Official)—The Board of Commissioners of Turner County has awarded the contract for bridge construction during 1915 to the FEDERAL BRIDGE CO., Des Moines, Iowa. Noted Feb. 25.

Cavalier, N. D.—Bids will be received until Apr. 6 by W. W. Felson, Audr. of Pembina County, for constructing seven bridges.

St. Joseph, Mo.—It is reported that the Public Service Commission has ordered the construction of two viaducts; one to be on South Sixth St. and intersect the second one at Monterey St. The estimated cost of the two is $350,000. Charles Campbell is City Engr.

✚Sapulpa, Okla.—The Commissioners of Creek County have awarded the contract for the construction of a bridge over the Cimarron River to the BOARDMAN BRIDGE CO., Oklahoma, Okla., at about $27,000. Noted Sept. 17, 1914.

Seattle, Wash.—The City Council has instructed the Board of Public Works to advertise for bids for the construction of a $45,000 drawbridge over the Duwamish Waterway at Eighth Ave., S. A. L. Valentine is Chn. Bd. of Pub. Wks. Noted Nov. 12.

Spokane, Wash.—It is reported that bids will be received until Mar. 15 by the City Commissioners for the construction of a steel bridge over the Spokane River near the present Nine Mile Bridge. Morton Macartney is City Engr. Noted Jan. 14.

Tacoma, Wash.—The Board of Commissioners of Pierce County has decided to rebuild the Michel River Bridge on the Mt. Tacoma Rd. at an estimated cost of $35,000. It is stated that bids will be asked as soon as plans are completed. D. H. White is County Engr.

✚Portland, Ore.—The Columbia River Interstate Bridge Commission has awarded contracts for the construction of the bridge between Portland and Vancouver, Wash., to the following: steel for the main river span, U. S. STEEL PRODUCTS CO., 30 Church St., New York, N. Y., $417,316; erection of main span, PORTER BROS., Portland, $99,829; steel for slough span, NORTHWEST STEEL CO., Portland, $39,140; erection, PORTER BROS., $18,587; main river and slough substructures, PACIFIC BRIDGE CO., Portland, $319,415 and $119,759 respectively; embankment, TACOMA DREDGING CO., Tacoma, Wash., $158,214; floor on steel structures, WARREN CONSTRUCTION CO., Portland, $82,803. Noted Oct. 16, 1913, Jan. 15 and Nov. 26, 1914; Jan. 14, 1915.

Los Angeles, Calif.—It is reported that the Board of Supervisors of Los Angeles County will soon advertise for bids for the construction of two reinforced-concrete bridges, one over San Antonio Wash on Foothill Blvd., Road Dist. No. 112, and the other over Coyote Creek on Cypress Ave. Both bridges will be 60 ft. long and 25 ft. wide.

Los Angeles, Calif.—The City Council and the railway and street railway companies plan the construction of a $500,000 viaduct at East Seventh St. over the tracks on both sides of the Los Angeles River. Homer Hamlin is City Engr.

Fredericton, N. B.—(Official)—Bids will be received until noon, Mar. 31, by the Department of Public Works, for the construction of the steel superstructure of Merritt Bridge at Armstrong's Corner, Parish of Petersville, Queens County, N. B. It will be a riveted truss span 94 ft. long. John Morrissy is Minister of Pub. Wks.

Kingston, Ont.—(Official)—Bids will be received until 4 p.m., Mar. 18, by the Department of Public Works, Ottawa, for the construction of the superstructures of two steel through-truss bridges, and of one steel single-leaf Strauss trunnion bascule bridge over the Cataraqui River at Kingston. R. C. Desrochers, Ottawa, is Secy. Dept. of Pub. Wks.

WATER SUPPLY—IRRIGATION

★Fitchburg, Mass.—Bids were received by the Board of Water Commissioners for the construction of the Ashby reservoir as follows: E. W. Foley Construction Co., 71 Wall St., New York, N. Y., $99,105; International Construction Co., Boston, $104,994; Hassam Paving Co., Worcester, $107,136; De Onfro Bros., Leominster, $111,566; Perini Construction Co., Ashland, $113,858; Barrolly & Ingersoll, Rochester, N. Y., $115,464; Joseph Long & Co., Leominster, $117,438; Russo & Barker Construction Co., Hudson, N. Y., $119,139; R. F. Hudson, Melrose, $120,597; Doolittle & Garland, Ohio, $121,455; Coleman Bros., Boston, $125,710; Bruno & Petitti, Boston, $127,723; F. E. Bessman Co., Baltimore, Md., $134,290; F. A. Gammino, Providence, R. I., $137,463; Philip Cenendella, Milford, $137,489; R. H. Newell & Brock, Uxbridge, $139,336; C. W. Blakeslee & Co., New Haven, Conn., $153,884; H. P. Cummings Construction Co., Ware, $154,998; Frazer-Bruce Co., Montreal, Que., $156,117 and John Marsh, Southbridge, $178,961. Metcalf & Eddy, Boston, is Consult. Engr. Noted Jan. 21.

Lowell, Mass.—An appropriation of $225,000 for the construction of a purification plant for the water system is being sought from the State Legislature. Robert J. Thomas is Supt. of the Water Dept. Noted July 9, 1914.

Worcester, Mass.—The City Council has authorized an appropriation of $85,000 for the improvement and extension of the water system. F. H. McClure is City Engr.

✚Meriden, Conn.—The contract for constructing a pump house at Hough Mills has been awarded to LEWIS A. MILLER, 26 Church St., Meriden. W. S. Clarke is City Engr. Noted Jan. 14.

Buffalo, N. Y.—A bond issue of $569,382 has been approved by the Finance Committee of the Board of Aldermen. The proceeds will be used for the improvement of the water system. Daniel J. Sweeney is City Clk.

✚★Lyons, N. Y.—Contracts have been awarded to the KENNEDY-HAMILTON CO., Utica, at $36,734 and $79,014 for constructing the water and sewer systems respectively. The contract for constructing the sewage disposal plant has been awarded to the LEARY-MORRISON CO., Rochester, at $37,492. Bids opened Mar. 3. Noted Feb. 11.

★Middletown, N. Y.—(Official)—The low bidder for laying 20-in. c.i. water mains was P. L. Braunworth, Montclair, N. J., at $9888. Bids opened Feb. 20. Noted Jan. 21.

Sidney, N. Y.—(Official)—The State Conservation Commission has approved plans for the construction of a municipal water system. The Commission also requires the installation of a filtration plant. Henry W. Taylor, 100 State St., Albany, is Engr. Noted July 30, 1914.

Watervliet, N. Y.—The Baxter Bill, which allows the city to issue $625,000 in bonds, the proceeds of which will be used for the construction of a new water system, has been reported to the House by the committee. Frank Heis is City Engr. Noted Nov. 5 and Dec. 24, 1914.

Boonton, N. J.—(Official)—Plans are being prepared by Charles A. Van Keuren, City Engr., Jersey City, and will be ready about Apr. 1 for the construction of a 6-ft. steel pipe line 12 miles long to carry water from Boonton to Jersey City.

Clinton, N. J.—Bids will be received until 2 p.m., Mar. 12, by the Board of Managers of the New Jersey State Hospital for drilling three wells for the water system. Scott Scammell is Secy.

+Clinton, N. J.—(Official)—The contract has been awarded to the SUBURBAN ENGINEERING CO., New York, N. Y., at $7315, for making extensions to the water system at the New Jersey Reformatory for Women. Noted Feb. 25.

Ridgewood, N. J.—The Board of Public Utility Commissioners has ordered the Bergen Aqueduct Co. to make extensions to its system at Glen Rock.

Bellevue, Penn.—(Official)—The Ohio Valley Water Co. has retained Chester & Fleming, Engr., Pittsburgh, to prepare plans for the construction of a new 16-in. main to be constructed under the Ohio River from the pumping station on Neville Island to Bellevue.

Takoma Park, D. C.—The water system will be improved at an estimated cost of $18,500. Harry Stevens is Consult. Engr. Noted Jan. 14.

Grantsville, W. Va.—At an election held recently the citizens voted in favor of issuing $10,000 in bonds. The proceeds will be used for the construction of a water system.

Asheville, N. C.—Bids will be received until Mar. 22 by F. L. Conder, City Clk., for c.-i. pipe and specials for the water department.

Bradentown, Fla.—The city plans to enlarge the water system. A building will be constructed and boilers and pumps installed. The estimated cost is $8000. W. H. Tracy is Comr. of Pub. Wks.

Vivian, La.—Bids will be received until Mar. 16 for the purchase of $35,000 in bonds, the proceeds of which will be used for the construction of a water system. J. D. Houston is Town Clk. Noted Dec. 10.

Knoxville, Tenn.—A bond election will be held to vote on the question of issuing $500,000 in bonds. The proceeds will be used for the extension of the water mains, installing a pump at the river station, installing gate valves, hydrants and meters. J. B. McCalla is City Engr. Noted Aug. 20.

Nashville, Tenn.—The Board of Commissioners contemplates issuing $300,000 in bonds, the proceeds of which will be used for the installation of an engine at the pumping station with a daily capacity of 20,000,000 gal. W. W. Southgate is City Engr.

+Hodgenville, Ky.—The contract has been awarded to J. W. and A. SNYDER, Taylorsville, at $14,300 for constructing a water system. Noted Sept. 24.

Belleville, Ohio—(Official)—Bids will be received in April for gas engine driven pumps, about five miles of c.-i. pipe and a storage reservoir for the proposed water system. Smith & Boulay, Toledo, is Engr.

Cleveland, Ohio—The Masters & Mullen Construction Co., at $38,905, was low bidder for constructing a coagulant house superstructure for the filtration plant, under Contract No. 5. Bids opened Feb. 24. Noted Feb. 11.

Columbus, Ohio—An appropriation of $100,000 has been made by the City Council, for the extension of the water system. J. O'Shaughnessy is Supt. of Water-Wks.

Coshocton, Ohio—Plans have been approved by the State Board of Health for the construction of a reservoir. Chester & Fleming, Pittsburgh, Penn., is Engr. Noted Jan. 7 and Feb. 18.

Dover, Ohio—Bonds for $13,400 will be issued the proceeds of which will be used for the enlargement of the water system. A 3,500,000-gal. pump will be installed. L. M. Williams is Mayor.

Mt. Blanchard, Ohio—According to press reports, bonds for $10,000 have been sold. The proceeds will be used for the construction of a water system. Noted Nov. 19.

Toledo, Ohio—All bids received for the construction of a water main under the Maumee River have been rejected. The work will be readvertised. Noted Feb. 18.

Toledo, Ohio—(Official)—Bids will be received until noon, Mar. 31, by A. W. Bordman, Dir. of Pub. Ser., for constructing a high-pressure fire service pumping station. Time extended from Mar. 18. The W. J. Sherman Co., Toledo, is Engr. Noted Feb. 25 and Mar. 4.

Saginaw, Mich.—An election will probably be held Mar. 15 to vote on the question of issuing bonds for $750,000. The proceeds will be used for the construction of a new water system. About $100,000 is to be used for the extension of the present water mains.

+Schoolcraft, Mich.—(Official)—The contract for driving wells for the proposed water system has been awarded to ROBERT E. KERSEY, South Bend, Ind. Smith & Boulay, Toledo, Ohio, is Engr. Noted Feb. 25.

Berwyn, Ill.—Bids will be received until Mar. 16 by the Board of Local Improvements for constructing a c.-i. water main in 64th Ave. and in other streets. Arthur R. Wolfe, 39 South La Salle St., Chicago, is Engr.

+East Peoria, Ill.—(Peoria post office)—The contract, according to press reports, has been awarded to the PUBLIC SERVICE CONSTRUCTION CO., Omaha, Neb., at $10,300, for construction of a water system, with the exception of laying the water mains. Noted Jan. 28.

Joliet, Ill.—According to press reports, bids were received for the construction of a 5,000,000-gal. reservoir as follows: H. L. Winslow Co., Chicago, at $19,600 (low bidder); Logan & Geers Construction Co., Elgin, $20,190; Foley Construction Co., $20,300; Newkirk & Powers Co., Joliet, $20,454, and the Embankment Co., $21,187.

Milwaukee, Wis.—Bids will soon be received, according to press reports, for the construction of a shore tunnel, about one mile long. H. P. Bohmann is Supt. of Water-Wks. Noted 5, 1914.

Two Rivers, Wis.—The Common Council has decided to construct an intake into Lake Michigan instead of drilling shore wells. E. Bruins, City Engr., has been directed to prepare plans for a c.-i. pipe intake main from 2750 to 4000 ft. long. Noted Feb. 11.

Wauwatosa, Wis.—(Official)—Bids will be received until 1 p.m., Mar. 13, by A. V. Brigham, City Clk., for drilling an artesian well to a depth of between 1300 and 1600 ft.

West Allis, Wis.—The Common Council has authorized the City Engineer to prepare plans for the extension of the water system. A centrifugal pump with a capacity of 2000 gal. per minute will be installed. Noted Dec. 17.

Yale, Iowa—Bids will be received until Mar. 15 by L. M. Swindler, Clk., for the construction of a water system.

Duluth, Minn.—The City Council contemplates spending about $90,000 for the improvement and extension of the water and light system during the year. John Wilson is City Engr.

+Fairmont, Minn.—The contract for constructing 12,000 ft. of water mains has been awarded to J. T. REA, Tracy, at $10,000.

South Stillwater, Minn.—(Official)—All bids received Mar. 2 for making extensions to the water system have been rejected. Oscar Huhnke is Village Recdr. Noted Feb. 25.

★Winona, Minn.—(Official)—Bids will be received by the Board of Municipal Works, until 4 p.m., Apr. 15, for drilling four artesian wells. Alvord & Burdick, Hartford Bldg., Chicago, Ill., is Engr. For details see advertisement under "Contracts To Be Let."

Lawrence, Kan.—At a recent election the citizens rejected the proposition to purchase the water system. An election will be held to vote on the question of issuing $350,000 in bonds, the proceeds of which will be used for the construction of a municipal system. Noted Aug. 6, 1914.

Manhattan, Kan.—Bids will be received in May for the construction of a water system. The estimated cost is $72,000. Worley & Black, Kansas City, Mo., is Engr. Noted Jan. 14 and Feb. 18.

Pratt, Kan.—Bids will be received about Apr. 1 by the City Commissioners for laying water mains, driving eight 8-in. wells and for constructing a pumping station. The estimated cost is $20,000. M. P. Jones is City Clk. Noted Feb. 4.

Billings, Mont.—(Official)—Bids will be received until 2 p.m., Mar. 17, by L. E. Torrence, City Clk., for making improvements to the water system as follows: Six 1,000,000-gal. mechanical filters, a turbine pump and 100-hp. motor, a reinforced-concrete settling basin and making extensions to the distributing system. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., is Engr. Noted Jan. 14 and Feb. 11.

Fromberg, Mont.—An election will be held to vote on the question of issuing $20,000 in bonds, the proceeds will be used for the construction of a water system. B. C. Lillis, Billings, has completed the surveys. Noted Feb. 11.

Harlowton, Mont.—Bids will be received about Apr. 1 for the construction of a water system. Garharz-Jaqueth Engineering Co., Great Falls., is Engr. The estimated cost is $15,000. Noted Dec. 17, 1914 and Jan. 7.

★Lewistown, Mont.—(Official)—Bids will be received until 8 p.m., Mar. 29, by the City Clerk, for 100 tons of c.-i. pipe, 24 valves and eight hydrants. A. C. Birkland is City Engr.

Phillipsburg, Mont.—C. H. Green & Co., Spokane, Wash., has been engaged by the Council to prepare plans for the improvement of the water system. The estimated cost is $15,000. Noted Feb. 18.

Caruthersville, Mo.—(Official)—Bids will be received until Mar. 22 by J. M. McGinnis, City Clk., for driving a 10-in. well. Noted Feb. 25.

Chillicothe, Mo.—At a recent election the citizens voted in favor of issuing bonds for $135,000 for the purchase and improvement of the water system.

Edina, Mo.—Bids will be received about Apr. 15 for the construction of a water system. The estimated cost is $20,000. Tuttle & Pike, Kansas City, is Engr. Noted Dec. 3.

Benton, Ark.—See item under "Sewers."

Dardanelle, Ark.—Bids will be received until Mar. 15 for making extensions to the water system. H. D. Evins is Supt. of Water-Wks.

Gentry, Ark.—The city contemplates building a water system and an electric-light plant.

Springdale, Ark.—The construction of water and sewer systems is contemplated by the City Council. F. Reed is City Recdr.

Brenham, Tex.—A $15,000 bond issue has been approved by the State Attorney-General. The proceeds will be used for the improvement of the water system.

+Denison, Tex.—The contract has been awarded to the CADDO CONSTRUCTION CO., Muskogee, Okla., at $10,893 for installing a filtration plant at the Randell reservoir.

Houston, Tex.—The city contemplates issuing $20,000 in bonds, the proceeds of which will be used for the construction of concrete settling tanks for the water-works. B. Campbell is Mayor.

Lott, Tex.—The Attorney-General's Department approved a bond issue for $5000, the proceeds of which will be used for the extension of the water system. Noted Feb. 25.

+Magnolia Park, Tex.—(Houston post office)—The contract has been awarded to the HAMILTON BROS. CONSTRUCTION CO., at $85,900 for the construction of a water system. Noted Dec. 24, Feb. 4 and 18.

Temple, Tex.—Plans for the construction of a concrete dam and spillway over the Leon River have been adopted by the Water Commissioners. The estimated cost is $25,000. Noted Jan. 28.

Montrose, Colo.—(Official)—Bonds for $90,000 have been issued, the proceeds of which will be used for the improvement of the water system. P. W. Pinkerton is City Mgr. Noted Feb. 18.

Roswell, N. M.—The city plans to extend the water system.

Idaho Falls, Idaho—A special election will be held Mar. 17 to vote on the question of creating an irrigation district. The new district will be known as the Poplar Irrigation District. The County Clerk of Bingham County is in charge.

Draper, Utah—The Draper Irrigation Co. plans to build a pipe line from Big Willow to supply eight towns.

Ogden, Utah—An election will be held Mar. 27 to vote on the question of issuing $75,000 in bonds, the proceeds of which will be used for the construction of a water main between Cold Water cañon and the city's wells. Noted Feb. 11.

Salt Lake City, Utah—(Official)—Bids will be received until 10 a.m., Mar. 16, for laying water mains in various streets. Karl A. Scheid is City Recdr. Noted Dec. 31.

Taylorsville, Utah—(Sandy post office)—The citizens contemplate constructing a water system at an estimated cost of $10,000.

Tooele, Utah—Bonds for $64,000 were voted at a recent election. The proceeds will be used for the purchase and improvement of the water system, Tooele City Water Co.

Clifton, Ariz.—An appropriation of $8500 for artesian wells in Greenlee County has been approved by the House Committee of the Whole.

Kingman, Ariz.—An appropriation of $8500 has been made for drilling an artesian well in the Hualpai Valley.

St. Johns, Ariz.—An appropriation of $8500 for the construction of an artesian well in Apache County is contemplated.

Tombstone, Ariz.—An appropriation of $8500 for the construction of an artesian well in Cochise County has been made.

Winslow, Ariz.—An appropriation of $8500 for drilling artesian wells near Winslow has been approved by the House Committee of the Whole.

Bellingham, Wash.—The construction of a high-pressure reservoir with a capacity of 100,000,000-gal. is contemplated by the City Council. The estimated cost is $150,000.

Olympia, Wash.—The City Council has appointed W. J. Roberts, J. B. Blackwell and M. McQuinn to appraise the water system. Improvements, estimated to cost $100,000, are contemplated.

Fairview, Ore.—According to press reports a survey has been made for the construction of a water system. The estimated cost is $25,000.

Portland, Ore.—According to press reports, a pipe line 270 miles long will be constructed by Jason C. Moore and associates, New York, N. Y., from Summer and Albert Lakes in Lake County to within 30 miles of the Dalles. The estimated cost is $2,000,000.

Portland, Ore.—Bonds for $460,000 have been issued. The proceeds will be used for the construction of a dam at the Bull Run headworks and for constructing pipe lines.

✚Lodi, Calif.—The contract has been awarded to the PAYNE-BAILEY CO. for pipe and specials for the extension of the water system.

Long Beach, Calif.—Bids will soon be received by the Board of Public Works for 1300 tons of c.-i. pipe and fittings for the Water Department.

Modesto, Calif.—The City Council will construct a steel tank with a capacity of 100,000 gal. George Frietas is City Engr.

Port Hope, Ont.—Bids will be received until 5 p.m., Mar. 15, by R. Gray, Secy. Water Comn., for contracts as follows: Contract 3, low lift centrifugal pumps, motors, oil engine, piping; 4 venturi tubes, loss-head gages, elevator gages; 5 four slow sand filters, pump house, reservoir; 6 c.-i. pipe and specials; 7 valves and valve boxes. E. W. Thorold Co., Ltd., 2 Toronto St., Toronto, is Engr.

Toronto, Ont.—(Official)—Bids will be received until Mar. 16 by T. L. Church, Chn. Bd. of Control, for water tube boilers and mechanical stokers for the main pumping station.

Toronto, Ont.—According to press reports the construction of a duplicate water system at East Toronto is under consideration by the Board of Control.

Beverly, Alta.—The Town Council plans to construct water, sewer and electric-light systems. The estimated cost is $75,000. H. E. Read is Engr.

Duncan Station, B. C.—The construction of a water system is under consideration by the City Commission. The water will be piped from Holt Creek, a distance of 61 miles.

SEWERS

✚Boston, Mass.—The contract has been awarded to M. De SISTO, at $3439 for sewerage work in Dunbar St., Bruce and Weld St., West Roxbury, by L. K. Rourke, Comr. of Pub. Wks. Bids opened Mar. 1. Noted Feb. 25.

✚Boston, Mass.—The contract for sewerage work in Saybrook St., Brighton District, has been awarded by L. K. Rourke, Comr. of Pub. Wks., to ANTHONY CEFALO, at $3468. Bids opened Mar. 2. Noted Feb. 25.

Lawrence, Mass.—Plans have been prepared for the construction of surface and sanitary sewers in Ward 5.

Lexington, Mass.—McClintock & Woodfall, Boston, has prepared plans for the construction of about eight miles of 8- to 20-in. sewers. The estimated cost is $100,000. George E. Briggs is Chn. of the Sewer Comn. Noted Feb. 25.

Brighton, N. Y.—Bids will be received until Mar. 18 by the Sewer Commissioners, District No. 1, for constructing a sewage disposal plant. William S. Lozier, Cutler Bldg., Rochester, in Engr.

✚Buffalo, N. Y.—The FAHNING-GAREY CONTRACTING CO. has been awarded the contract for constructing a sewer in Downing St. Francis G. Ward is Comr. of Pub. Wks.

Dunkirk, N. Y.—Plans have been prepared, according to press reports, for the construction of a sewer system and a sewage disposal plant. W. H. Skalton is City Engr. The estimated cost is $75,000.

★Lyons, N. Y.—See item under "Water Supply--Irrigation."

★Mt. Morris, N. Y.—(Official)—Bids were received Feb. 26 for (A) constructing nine miles of pipe sewers and (B) and a sewage disposal plant, as follows: Charles Bonn, Syracuse, (A) $58,850,: (B) $7936; F. S. & A. Sposato, Syracuse, (A) $51,553, (B) $6498; D. D. Dugan & Son, Olean, (A) $48,050; Tyne & Willey, Binghamton, (A) $47,757, (B) $7243; R. T. Ford Co., Rochester, (A) $47,475, (B) $6500; C. R. Lewis, (A) $46,595, (B) $6577; Burns Bros., Newcastle, Penn., (A) $44,500, (B) $5000; Leary & Morrison, Rochester, (A) $39,400, (B) $6200; McCarthy & Wall, Mt. Morris, (A) $38,942; John Petrossi Co., Rochester, (A) $37,014; Albert Gaffey, Syracuse, (A) $34,$28, (B) $4927; and Desiderio & Sattler, Rochester, (A) $30,773, (B) $6537. Noted Feb. 18.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 10:30 a.m., Mar. 16, by Douglas Mathewson, Borough Pres., for constructing a sewer and appurtenances in Plimpton Ave. between Boschoel Ave. and Featherbed Lane.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Mar. 17, by the Borough President for constructing sewers in various streets.

New York, N. Y.—(Borough of Brooklyn)—(Official)—J. F. Cogan Co., at $305,147, was low bidder for constructing the Tompkins Ave. sewer. Noted Feb. 25.

✚New York, N. Y.—(Borough of Brooklyn)—The contract has been awarded to NORTON & GORMAN, at $15,233, for removing the temporary sewer in Fourth Ave. Noted Mar. 4.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Mar. 17, by L. H. Pounds, Borough President, for furnishing and installing the mechanical equipment of pumping station at Ave. U and Ocean Parkway, Section 2, sanitary sewers and storm water sewers in Ave. U from Ocean Parkway to Gravesend Ave. and force main in Ave. U from Ocean Parkway to East First St., together with an intermediate pumping station and appurtenances at the intersection of Ave. U and Ocean Parkway.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., Mar. 18, by Marcus M. Marks, Borough Pres., for sewerage work in 38th St. and in 111th St.

New York, N. Y.—(Borough of Queens)—(Official)—Bids were received Feb. 26 for constructing sewers in various streets as follows: Nebraska, Liberty and Garden St., Paino Bros., $46,309; Rosenthal Engineering & Contracting Co., $48,306; Newman & Carey Co., $47,277; Jeseph L. Sigretto & Co., $48,932; Green Contracting Co., $51,062; Charles A. Meyers Contracting Co., $51,525; H. J. Mullen Construction Co., Inc., $55,134; Lawrence Construction Co., Inc., $56,833; Murphy Bros., $60,777; Elmhurst Contracting Co., $62,436; Peace Bros., $66.928; King Bros., $69,026 and Hanover Contracting Co., $72,010. In Hancock St., Graham and Sanford Ave., Arthur Dumproff, $11,308; Green Construction Co., $13,006; Evergreen Construction Co., $13,937; Peace Bros., $13,974; T. Tepadula, $14,360; Burnside Construction Co., $14,421; Rosenthal Engineering & Contracting Co., $14,600; Briggs & McLaughlin, $15,539; King Bros., $16,662 and Clancy & Van Alst, $18,386. In Fulton St., Greenwood Ave., Chestnut St. and Scott St., H. Britton, $12,881; C. A. Meyersm, $13,921; Evergreen Construction Co., $14,322; J. L. Sigretto & Co., $14,568; Gillin Construction Co., $14,804; Paino Bros., $15,184; Rosenthal Engineering & Contracting Co., $15,360; H. J. Mullen, $15,364; James H. Holmes, $15,887; Peace Bros., $17,977; Stanhope Construction Co., $18,309; King Bros., $18,422; Lawrence Construction Co., $19,185; Elmhurst Construction Co., $19,897; and Hanover Construction Co., $22,082. Noted Feb. 18.

Niagara Falls, N. Y.—An appropriation of $196,000 has been approved by the Board of Public Works, for the construction of sewers during the year. F. S. Parkhurst is City Engr.

Haddonfield, N. J.—Press reports state that a sewer, costing $17,000, will be constructed in Kings Highway.

Irvington, N. J.—The Board of Commissioners contemplates constructing storm water sewers in Ellis Ave., Alpine St., Madison Ave. and 21st St.

Newark, N. J.—Bonds for $350,000 have been sold, the proceeds of which will be used for the extension of the sewer system. Morris R. Sherrard is City Engr.

Oaklyn, N. J.—Bonds for $40,000 have been voted by the citizens. The proceeds will be used for the installation of a sewer system. Remington & Vosbury, Camden, is Engr. Noted Dec. 3.

Pitman, N. J.—Remington & Vosbury, Camden, is preparing plans for the construction of a sewer system and sewage disposal plant.

Roselle, N. J.—Plans are being prepared by Jacob L. Bauer, Borough Engr., for the construction of a lateral sewer in Chandler Ave. and for a joint sewer to take care of drainage of portions of Linden Township and Roselle.

Seaside Park, N. J.—Plans, prepared by Remington & Vosbury, Camden, for the construction of a sewer system and sewage disposal plant, have been submitted to the State Board of Health, Trenton.

✚Philadelphia, Penn.—(Official)—Bids were received Mar. 1 for constructing sewers under Contract No. 12 as follows: JOSEPH PERNA, 334 North 65th St., Philadelphia, at $156,000 (awarded contract); Robert Lombardi, Philadelphia, $164,700; John McMahamy, Holmesburg, Philadelphia, $241,000; Peoples Bros., Philadelphia, $205,454; Emilio Pascuzzi, Philadelphia, $252,103; Frank Mark Contracting Co., Philadelphia, $213,208 and Keystone State Construction Co., Philadelphia, $156,500. Street car traffic is required to be maintained.

Parkersburg, W. Va.—Bids will be received until Mar. 25 by the City Commissioners for the purchase of $200,000 in bonds, the proceeds of which will be used for the construction of sewers and paving. W. H. Smith is Chn. Noted Mar. 4.

Charlotte, N. C.—(Official)—S. H. Lea, City Engr., is making surveys for the construction of a sewer to be known as the east trunk outfall.

Atlanta, Ga.—According to press reports plans are being prepared by the Street Committee of the Council for the construction of sewers. The estimated cost is $359,000. R. M. Clayton is City Engr.

Macon, Ga.—Bids will be received until Mar. 16 by D. S. Jones, City Clk., for constructing sewers in the Tybes District and for the construction of a septic tank.

✚Clearwater, Fla.—Contracts have been awarded for constructing sanitary sewers to R. L. DAVIS, Tampa, at $15,133 and for storm water sewers to the SEMINOLE CONTRACTING CO., Sanford, at $4945. Noted Feb. 11.

Pablo Beach, Fla.—The J. B. McCrary Co., Atlanta, Ga., has been retained, according to press reports, to prepare plans for the construction of a sewer system and an electric-light plant. The estimated cost is $35,000. Noted Oct. 1.

St. Augustine, Fla.—The construction of a sewer system is under consideration.

Columbus, Ohio—The City Council has passed an ordinance appropriating $275,000 for enlarging the sewerage-treatment works.

Coshocton, Ohio—Chester & Fleming, Engr., Pittsburgh, Penn., has prepared plans and specifications for a sewage-disposal plant, intercepting sewers and additions to the sanitary sewer system. The estimated cost is $86,000. Noted Dec. 24.

Hamilton, Ohio—The City Council Feb. 17 voted a bond issue of $10,000, the proceeds to be used in defraying the cost of constructing a storm sewer.

Grand Rapids, Mich.—William C. Hoad, University of Michigan, is preparing plans for a sewage-disposal plant for Grand Rapids.

Marquette, Mich.—The Escanaba Sewer Committee has been authorized to prepare a resolution submitting to the citizens at the spring election a proposition to issue bonds for the construction of a trunk sewer. Plans and specifications have been prepared.

Kenosha, Wis.—The City Council has authorized B. C. Brennan, City Engr., to prepare plans for the construction of sewers in the territory recently annexed by the city.

★✚Milwaukee, Wis.—(Official)—The following bids were received Feb. 24 for the construction of intercepting sewers on both sides of the Milwaukee River, Contracts 9 and 10: JONES & ERBECK, Pittsburgh, Penn., $288,098 (awarded contract), $193,837; Joseph Hanreddy, Chicago, Ill., $323,953, $218,076; Oscar Daniels Co., Chicago, Ill., $403,518, $264,788; F. K. Makielski, Milwaukee, $532,824, $276,987. Noted Jan. 28.

✚Audubon, Iowa—Contracts for the construction of lateral and outlet sewers have been awarded to FRED WYAT, Council Bluffs, at $25,220, and WARD & WEIGHTON, Sioux City, at $10,992, respectively.

Cedar Rapids, Iowa—Bids will be received until Mar. 19 by the City Council for the construction of storm water sewers in the following streets: Sixth Ave., 17th to 18th St.; 18th St., Sixth to Eighth Ave.; Eight Ave., 18th to 19th St.; 19th St., Eighth Ave. to Mt. Vernon Rd.

Leon, Iowa—(Official)—Bids will be received until Mar. 18 by S. G. Mitchell, City Clk., for the following sewer work: 11,047 ft. 6-in., 31,158 ft. 8-in., 9839 ft. 10-in. and 2018 ft. 12-in. vitrified clay pipe; 84 ft. 8-in., 684 ft. 10-in. and 72 ft. 12-in. c.i. pipe; 178 ft. piers for iron pipe; 117 manholes and 22 drop manholes; Imhoff disposal plant and filter beds. M. G. Hall, Centerville, is Engr.

Tripoli, Iowa—Bids will be received about Apr. 1 for the construction of a sewer system to cost about $35,000. M. Tschirgi & Son prepared the plans. H. W. Bockhaus is City Clk.

Red Wing, Minn.—The city contemplates the construction of a sewer system in East Red Wing. The plans call for a 6-ft. sewer at Green St. and a 30-ft. sewer at Bluff St. The estimated cost is $5825. A. E. Rhame is City Engr.

St. Paul, Minn.—Plans are being prepared for an 8-in. trunk sewer to extend over 15 miles of territory. It will be known as the Como-Langford system. The North Central Commercial Club is studying means of financing the project.

✚Ravenna, Neb.—The contract for the construction of 30,000 lin.ft. of main and lateral sewers has been awarded to the ARTHUR A. DOBSON CO., First National Bank Bldg., Lincoln.

Minot, N. D.—(Official)—E. J. Thomas, City Engr., advises us that the city plans to construct a sewage-disposal plant.

Helena, Mont.—Plans and specifications have been prepared for the installation of sanitary sewers in Grand Ave. and north of the Northern Pacific depot. Estimated cost, $15,000. Noted Aug. 20.

Benton, Ark.—The City Council has adopted the plans and specifications submitted for the construction of a sewer system and water-works. An election will be held soon to vote on the proposition. The estimated cost is $100,000. J. B. McCrary Co., Atlanta, Ga., prepared the plans. Noted Jan. 15.

Italy, Tex.—The city has issued bonds for $17,000 for the construction of sewers.

✚Pueblo, Colo.—The contract for the construction of sewers in the Mineral Palace District has been awarded to the ANDERSON-HAMILL CONSTRUCTION CO., at $137,236. The contract calls for brick and concrete sewer construction, paving, curbing and guttering. Noted Dec. 31.

Salt Lake City, Utah—The City Commission plans to construct sewers and extensions this year costing $300,000. The following program has been submitted by the City Engineer: Main trunk sewer, 1800 ft., $225,000; discharge outlet, $50,000; city's portion of sewer extension No. 326, $25,000. Sylvester Q. Cannon is City Engr.

Seattle, Wash.—The Board of Public Works has approved plans and specifications for the construction of sewers in Lakeside Ave. and other streets. The following work will be done: Laying 1100 ft. 8-in. pipe, 1110 ft. 10-in. pipe, 800 ft. 12- and 15-in. pipe, construction of 81 brick manholes, three flush tanks and 36 catchbasins. Noted Aug. 13.

Huntington Beach, Calif.—Bids will be received until 7:30 p.m., Mar. 29, for constructing the outfall section of the sewer system and a septic tank. The work includes: 1200 lin.ft. 12-in. c.-i. pipe, flexible joint, 1000 ft. to be laid on ocean bed; 800 ft. 16- to 24-in. vitrified sanitary sewer pipe; septic tank, 12x20x40 ft.

✚Long Beach, Calif.—The contract for constructing sewers in the harbor industrial district has been awarded to S. M. KERNS, Long Beach, at $23,000.

Ocean Beach, Calif.—Charles H. Julian's bid of $67,000 has been rejected by the City Council for completing the Ocean Beach sewer system. The City Clerk has been directed to readvertise the work. F. M. Lockwood is Sewer Engr. Noted Mar. 4.

Montreal, Que.—The City Council Feb. 15 voted $797,400 to be expended in constructing the proposed sewerage system. The plans have not been completed yet.

STREETS AND ROADS

Augusta, Maine—Plans are being prepared by the State Highway Commission for State road work for 1915. Bids will be received about Apr. 1. Irwin W. Barbour, Augusta, is State Highway Engr.

Boston, Mass.—The Board of Public Works plans an expenditure of $200,000 for constructing sidewalks.

✚Boston, Mass.—Contracts have been awarded for State Highway work in Charlton to T. TOOMEY, Webster, at $8414, and in Swansea to L. H. BRISTOL, Bristol, R. I., at $10,100.

Meriden, Conn.—Bids will be received until Mar. 23 by the Board of Public Works for paving State St. with wood block and vitrified brick. W. S. Clark is Supt. Pub. Wks.

New Haven, Conn.—Bids will be received until Mar. 15 by F. L. Ford, City Engr., for constructing new concrete sidewalks where necessary.

✚Buffalo, N. Y.—The contract for paving Bogardus, Ludington and Rano St. with asphalt has been awarded to HENRY P. BURGARD CO., 1968 Fillmore Ave., at $53,275.

Buffalo, N. Y.—The Common Council has voted to pave a number of streets with stone.

Endicott, N. Y.—Bonds for $20,000 have been sold, the proceeds of which will be used for paving Washington Ave.

Geneva, N. Y.—Bids have been received by the Board of Public Works for paving Castle St. with brick as follows: Robert W. Henson, Geneva, $72,328; Phelan & Sullivan, Utica, $79,149; Lake Shore Construction Co., Dunkirk, $79,466.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 10:30 a.m., Mar. 16, by Douglas Mathewson, Borough Pres., for improving Holland Ave. from Gun Hill Rd. to East 215th St., Overing St. from Westchester to Walker Ave., Sedgwick Ave. from Perot to Independence St.; also for paving Zerega Ave. from St. Raymond to Castle Hill Ave.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., Mar. 18, by Marcus M. Marks, Borough Pres., for improving Second Ave. from 15th to 17th St. in front of Stuyvesant Park.

New York, N. Y.—(Borough of Manhattan)—The lowest bid received Feb. 24 by R. A. C. Smith, Comr. of Docks and Ferries, for improving Marginal St. and piers of the North, East and Harlem Rivers, was that of the Sicilian Asphalt Paving Co., 41 Park Row. Noted Feb. 18.

Avon-by-the-Sea, N. J.—Bids will be received until 7:30 p.m., Mar. 15, by the Town Council for grading and graveling Sylvania and Woodland Ave. J. H. Emlen, Main St., Avon, is Engr.

Bloomfield, N. J.—Bids will be received until Mar. 15 by Raymond F. Davis, Town Clk., for oiling streets within the limits of Bloomfield. Approximately 70,000 gal. will be used.

★Bloomsbury, N. J.—(Official)—Bids will be received until 2 p.m., Mar. 31, by the Board of Chosen Freeholders, at the Courthouse, Belvidere, for constructing 2.91 miles of waterbound macadam on the Bloomsbury-Still Valley Rd. J. R. Thatcher is Dir. of Bd. of Freeholders. For particulars see advertisement under "Contracts to Be Let."

★Buttzville, N. J.—(Official)—Bids will be received until 11:30 a.m., Mar. 31, by the Board of Chosen Freeholders, at the Courthouse, Belvidere, for constructing 5.755 miles of waterbound macadam on the Buttzville-Denville Rd. For particulars see advertisement under "Contracts to Be Let." Noted Feb. 4.

Deal, N. J.—The Board of Chosen Freeholders of Monmouth County, Freehold, received bids Mar. 3 for paving the wings and constructing gutters on a mile of road in Norwood Ave., Deal, as follows: W. C. McGovern, Trenton, $23,927; Schreffler, Burns Co., Newark, $24,664; F. P. Byram, Red Bank, $24,768; C. E. Burd, Red Bank, $26,025; C. H. Winan Co., Elizabeth, $26,354; Schneider, Snell & Co., Philadelphia, $27,362; J. L. Le Compt, Lakewood, $27,771; J. F. Shanley Co., Philadelphia, $28,138; C. A. Reid, Trenton, $28,554; J. H. Hogan, Eatontown, $28,297.

Flemington, N. J.—The Board of Freeholders of Hunterdon County has voted to improve the Clinton-Lebanon macadam road. The Board is also considering the macadamizing of the road from Huffman's to the Morris County line, near Califon.

Hackensack, N. J.—(Official)—The Board of Chosen Freeholders of Bergen County will construct about 37,790 sq.yd. of pavement on 4-in. macadam base. The estimated cost is $180,000.

Jersey City, N. J.—Press reports state that the Board of Chosen Freeholders of Hudson County plans to improve Passaic Ave.

✚Manasquan, N. J.—The Board of Chosen Freeholders of Monmouth County has awarded the contract to RICHARD HAFEMAN, Freehold, N. J., for 4000 ft. of new ocean boulevard at Manasquan.

★Mt. Holly, N. J.—(Official)—Bids were received Mar. 1 by the Board of Chosen Freeholders of Burlington County for constructing stone roads in Burlington County as follows: Medford to Ballanger's Mills Rd., Berk & Bonham, Plainfield, $8587; Conrad Sebolt, New Brunswick, $8914. Burlington to Bowne's Corner Rd., Paul J. Snyder, Philadelphia, $10,009; T. J. Barrett, Roebling, $10,126. Columbus to Bordentown Rd., Paul J. Snyder, Philadelphia, $18,298; J. L. LeCompt, Lakewood, $20,519; Conrad Sebolt, New Brunswick, $20,519. Bordentown to Crosswicks Creek Rd., Paul J. Snyder, Philadelphia, $7166; Conrad Sebolt, New Brunswick, $8207. Moorestown to Masonville Rd., Paul J. Snyder, Philadelphia, $14,068; J. F. Shanley, Philadelphia. $15,664. Medford to Coates Corner Rd., Paul J. Snyder, Philadelphia, $11,867; Berk & Bonham, Plainfield, $12,911. Noted Feb. 18.

Paterson, N. J.—Garwood Ferguson, County Engr., Paterson, is preparing plans for improving Hamburg Turnpike. Bids will be asked in the spring.

✚★Roselle Park, N. J.—(Elizabeth post office)—(Official)—A contract for constructing concrete pavements and appurtenances has been awarded to C. H. WINANS & CO., Elizabeth, N. J., at $30,793. Other bids were: John Dorer, Irvington, $32,314; T. Foster Callahan, Elizabeth, $32,281; Edward L. Faughan, Elizabeth, $32,928. Weldon Contracting Co., Elizabeth, $33,370; Schneider Steele Co., New Brunswick, $33,873. Noted Feb. 18.

Somerville, N. J.—Bids will be received until Mar. 25 by the Board of Chosen Freeholders of Somerset County for rebuilding the road from Larger Cross Roads, Bedminster Township to the Hunterdon county line. This road is about three miles long and the work will be done by State aid.

Trenton, N. J.—The Board of City Commissioners is considering paving Lamberton St. from Market to Shepherd St.

Altoona, Penn.—The contract will soon be awarded by the City Council for 40,000 sq.yd. of vitrified brick pavement with concrete base.

Bethlehem, Penn.—(Official)—Bids will be received until Mar. 19 by George F. P. Young, Controller of Northampton County, Easton, Penn., for paving the Broad St. inter-county bridge with vitrified brick.

Ebensburg, Penn.—Curry & Campbell, Engr., is preparing plans for constructing a road between South Fork and Franklin. The estimated cost is $38,000.

Monaca, Penn.—Plans have been prepared by Michael Baker, Borough Engr., for paving portions of Fifth, Sixth, Eighth, Tenth, 11th, 12th, 13th, 15th, 16th and Virginia St. The estimated cost is $25,000.

Pittsburgh, Penn.—Press reports state that the City Council plans to reconstruct West Liberty Ave., at an estimated cost of $380,000. Work will be started some time this month.

Reading, Penn.—Bids will be received some time in April by Charles Marks, City Clk., for paving Perkimen Ave. with wood block. The estimated cost is $50,000. E. B. Ulrich is City Engr.

Washington, Penn.—Press reports state that the Board of Washington County Commissioners has voted in favor of issuing $120,000 in bonds for improving roads.

Frederick, Md.—The Commissioners of Frederick County have voted to construct a state road from Brunswick to Petersville. The approximate cost is $39,750.

Hagerstown, Md.—The Commissioners of Washington County have voted in favor of constructing about 15 miles of road in Washington County by State aid.

Washington, D. C.—See item under Federal Government Work headed "Grading."

Pulaski, Va.—An election will be held Apr. 6 to vote on the question of issuing $80,000 in bonds for permanent road building in Newbern Magisterial District.

★Charleston, W. Va.—(Official)—Bids will be received until 10 a.m., Mar. 24, by the Board of Affairs for curbing and paving Charleston, Florida, Jackson, Beauregard, Elizabeth, McClung, Kentucky, Quarrier and Jefferson St. and Park, Central, Fourth, Ruffner and California Ave. G. S. Brown, Lowenstein Bldg., is City Engr.

Moundsville, W. Va.—The Marshall County Court has decided to pave the Reillyhill Rd. through Sherrard. T. J. Bartrug is County Rd. Engr.

✚Black Mountain, N. C.—A contract for constructing concrete streets and sidewalks has been awarded to P. S. MINERS, Spartansburg, S. C.

Charlotte, N. C.—(Official)—Work will soon be started on the paving of North Brevard St. from 13th St. to the city limits. The work consists of 9000 lin.ft. of macadam.

Lumberton, N. C.—Bonds for $35,000 have been sold, the proceeds of which will be used for improving streets.

Atlanta, Ga.—The Board of Public Works plans an expenditure of $328,000 for street improvements. R. M. Clayton is Chn. of Construction.

Eustis, Fla.—At an election held Feb. 2 the question of issuing $35,000 in bonds for paving and constructing storm sewers was defeated. Noted Jan. 21.

✚Tarpon Springs, Fla.—A contract for constructing 10,000 sq.yd. of asphalt pavement has been awarded to R. L. DAVIS, 410½ Franklin St., Tampa.

Evergreen, Ala.—The Commissioners of Conecuh County have issued $50,000 in bonds for improving roads.

✚Clarksdale, Miss.—(Official)—Bids were received Mar. 3 by the Commissioners of Coahoma County for constructing 3½ miles of gravel road, 16 ft. wide, as follows: C. B. Cox, Midnight, Miss., $8061; Roach & Stansell, Memphis, Tenn., $13,642; Worthington Construction Co., Mobile, Ala., $11,068; Bennet & Scammerhorn, Helm, Miss., $9003; Owens Construction Co., Vicksburgh, Miss., $9351; Larkin & Co., Memphis, Tenn., $9409; Provine, Jackson & Morrison, Greenwood, Miss., $7015; Turner & Thomas, Memphis, Tenn., $8818; P. C. Powers & Son, Memphis, Tenn., $7396; S. R. Hughes & Co., Vicksburg, Miss., $9428; Smith Bros., Sunnyside, Ark., $7743; F. D. Harvey & Co., Memphis, Tenn., $6885; S. A. GANO, Jackson, Miss., $5965 (awarded contract). Noted Feb. 18.

Columbus, Miss.—Press reports state that the Commissioners of Lowndes County have approved the plans of O. Hauser, Aberdeen, for constructing roads in Good Roads District No. 2.

✚Jackson, Miss.—The contract for resurfacing Capitol St with brick has been awarded to F. G. PROUDFOOT, Chicago, instead of to the Barber Asphalt Co., Philadelphia, as erroneously noted in the issue of Jan. 14.

✚La Fayette, La.—A contract for constructing 16 miles of gravel roads has been awarded to the WORTHINGTON CONSTRUCTION CO., Brookhaven, Miss.

✚New Orleans, La.—The contract for repaving Charles St. from Esplanade Ave. to Frenchman St. has been awarded to M. J. FLYNN.

Shreveport, La.—Press reports state that the City Commission plans an expenditure of $20,000 for paving.

Centerville, Tenn.—An election will be held Mar. 27 to vote on the question of issuing $200,000 in bonds for constructing roads in Centerville District.

Jellico, Tenn.—Bonds for $150,000 were sold Mar. 2, the proceeds of which will be used for constructing and improving roads. Noted Feb. 11.

Brooksville, Ky.—The citizens of Bracken County contemplate voting on the question of issuing $40,000 in bonds to construct roads.

Louisville, Ky.—The Henry Bickel Co., Louisville, at $7500 was low bidder for paving Green St. from First to Floyd St. with vitrified blocks.

Munfordville, Ky.—The Hart County Fiscal Court has appropriated $12,000 for constructing a pike from the Hardin County line along Lincoln and Jackson Way.

✚Owensboro, Ky.—A contract for bitulithic pavement has been awarded to the SOUTHERN BITULITHIC CO., Nashville, Tenn., at $34,440.

Sandy Hook, Ky.—The Commissioners of Elliott County contemplate holding an election for the purpose of voting on bonds to construct roads.

Smithland, Ky.—Livingston County has appropriated $12,000 for constructing roads.

Wickliffe, Ky.—At a recent election the citizens of Ballard County voted in favor of issuing $30,000 in bonds for constructing roads. Noted Feb. 4.

Chillicothe, Ohio—The City Council contemplates paving Polk St. with tarvia.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Mar. 15, by Philip Fosdick, Dir. of Pub. Ser., for improving Orland Ave. from Harrison Ave. to its southern terminus.

Columbus, Ohio—The City Council contemplates constructing concrete sidewalks on Champion and Ohio Ave. from Livingston to Schiller Ave.

Elyria, Ohio—(Official)—Bids will be received until noon, Mar. 15, by M. M. Wilcox, Dir. of Pub. Ser., for street work during 1915.

Lorain, Ohio—Press reports state that the City Council plans to pave West Erie St.

✚Ottawa, Ohio—(Official)—Bids were received Feb. 24, and contracts awarded for the construction of the stone road improvements in Putnam County as follows: C. H. Donaldson Junction County Rd. to J. B. BLOSSER, Cloverdale, Ohio, $40,364; T. J. Winner Junction County Rd. to J. S. BLOSSER, Cloverdale, Ohio, $13,665; Tarley Billingsley Rd. to O. L. SMITH, Leipsic, Ohio, $41,967; John Hixon Rd. to WESTRICK & LINE, Holgate, Ohio, $20,629; William Kerns Rd. to SCHOEMAKER & SON, Pandora, Ohio, $20,123; C. C. Schafer Rd. to R. C. ROACH, Waterville, Ohio, $1405; M. M. McDougle Rd. to W. H. & H. A. SONDER, Fostoria, Ohio, $10,331; J. S. Bleeks Rd. to J. W. BOWERSOCK, Ft. Jennings, Ohio, $4179; J. H. Hohenbrink Rd. to IRA ACTON, Vaughnsville, Ohio, $30,662; J. H. Hohenbrink South Branch to IRA ACTON, Vaughnsville, Ohio, $2624; J. H. Hohenbrink North Branch to IRA ACTON, Vaughnsville, Ohio, $2319; M. Williams Rd. to WESTERICK & LINE, Holgate, Ohio, $20,916; Charles Conkright Rd. to FLOYD WELLS, Continental, Ohio, $13,850; H. H. Montooth Rd. to C. S. WITHMAN, Deshler, Ohio, $22,591; H. H. Montooth Rd. to C. S. WITHMAN, Deshler, Ohio, $4387. Noted Feb. 18.

✚Painesville, Ohio—The contract for paving Liberty St. has been awarded to GOULD & MAYBACH, Collinwood, Ohio, at $34,250.

Sandusky, Ohio—Bonds for $30,000 have been sold, the proceeds of which will be used for improving roads in Berlin Township.

Toledo, Ohio—(Official)—Bids will be received until 10 a.m., Mar. 30, by the Board of Commissioners of Lucas County for the material used in the repair and improvement of county roads.

Wellsville, Ohio—The City Council plans to pave 17th St.

Youngstown, Ohio—Bids will be received until Mar. 15 by Frank Agnew, Secy. of the Bd. of Comrs. of Rd. District No. 1, for constructing 8500 lin.ft. of roads in Boardman Township.

✚Zanesville, Ohio—(Official)—The contract for improving Adamsville Rd. has been awarded to ALBERT ADAMS & SON, Zanesville, Ohio, at $4193. Other bids were: A. Emery & Son,

$4724; Muskingum Contracting Co., $4336; W. R. Bolin, $4800. Noted Feb. 18.

Boonville, Ind.—(Official)—Bids will be received until 10 a.m., Apr. 6, by the Commissioners of Warrick County for constructing a road in Greer Township. G. H. Bass is County Audr.

Broad Ripple, Ind.—(Official)—Bids will be received until 7:30 p.m., Mar. 22, by the Board of Trustees for constructing concrete sidewalks.

+Delphi, Ind.—A contract for constructing a gravel road in Washington Township has been awarded to CHARLES MINNIX, Flora, Ind., at $13,250.

+Kentland, Ind.—A contract for constructing a macadam road in Jackson Township has been awarded to the LEHIGH STONE CO., Kankakee, Ill., at $7828.

+Monticello, Ind.—A contract for constructing the West Point Township Rd. has been awarded to SPENCER & MOORE, Wolcott, Ind., at $11,345.

+Nappanee, Ind.—A contract for street paving has been awarded to the CONCRETE CONSTRUCTION CO., Nappanee, Ind., at $20,000.

Newport, Ind.—(Official)—Bids will be received until 10 a.m., Apr. 5, by the Commissioners of Vermillion County, for constructing a gravel road in Highland Township. Roy Slater is Audr.

+Mt. Vernon, Ind.—Contracts for constructing two gravel roads in Posey County have been awarded to the MT. VERNON CONSTRUCTION CO., at $5853 and $6850 respectively.

+Salem, Ind.—A contract for constructing the Washington and Jefferson Township Roads has been awarded to FRED SIMPSON, Salem, Ind., at $4198. Noted Feb. 11.

+Flint, Mich.—(Official)—The contract for constructing an asphalt plant has been awarded to HETHERINGTON & BERNER, Indianapolis, Ind., at $9245. Noted Feb. 18.

Marshall, Mich.—(Official)—Bids will be received until noon, Mar. 15, by the Commissioners of Calhoun County, for constructing roads in several townships.

Rushville, Ill.—The Town Council contemplates an expenditure of $70,000 for paving streets during 1915.

+Des Moines, Iowa—The contract for paving Third St. from Boston to Euclid Ave. has been awarded to the DES MOINES ASPHALT PAVING CO.

St. Paul, Minn.—The City Council ordered Robert St. from Sixth St. to Central Ave. to be paved and curbed.

Holton, Kan.—(Official)—Bids were received Feb. 26 for paving (a) vitrified brick on 5-in. concrete base (b) vitrified fiber on 5-in. concrete base (c) asphaltic on 5-in. concrete base as follows: James Stanton, Leavenworth, Kan., (a) $31,981, (b) $29,391, (c) $24,727; John McGuire, Leavenworth, Kan., (a) $32,528, (b) $29,938; Kansas Paving & Construction Co., Kansas City, Mo., (a) $35,004, (b) $32,414; Watts & Amerman, Concordia, Kan., (a) $34,725, (b) $32,005, (c) $25,261; Wilson Construction Co., Whiting, Ind., (a) $34,080, (b) $32,267; Peak & Stingley, Manhattan, Kan., (a) $36,239, (b) $33,649, (c) $27,034; Monarch Engineering Co., Falls City, Neb., (b) $30,916; Kaw Paving Co., Topeka, Kan., (a) $34,222, (b) $31,502, (c) $26,421; Land Construction Co., St. Joseph, Mo., (a) $35,418, (b) $32,310; E. D. Tyner Construction Co., Kansas City, Mo., (a) $33,133, (b) $31,838, (c) $25,741; J. R. Ramsey, Lawrence, Kan., (a) $34,038, (b) $30,153, (c) $25,460; Elliott & Vance, Parsons, Kan., (a) $31,713, (b) $29,382; E. W. Geiger Construction Co., Leavenworth, Kan., (a) $32,104, (b) $29,579, (c) $26,282; Ozark Paving Co., Joplin, Mo., (a) $36,004, (b) $33,414, (c) $27,706; Olsen Schmidt Construction Co., St. Joseph, Mo., (a) $36,645; (b) $34,444; E. F. Wilcox & Co., Kansas City, Mo., (a) $37,430, (b)$34,257; A. R. Young & Co., Lawrence, Kan., (a) $35,524, (b) $33,582, (c) $27,865; A. Jaicks Co., Kansas City, Mo., (c) $25,942.

Leola, S. D.—Bids will be received until 3 p.m., Apr. 6, for grading highways during 1915. J. B. Wittmayer is Audr. of McPherson County.

McIntosh, S. D.—Bids will be received until 2 p.m., Apr. 7, by Rudolph Jager, Comr. of Corson County, for grading the county highway.

Russellville, Ark.—Press reports state that the City Council contemplates paving about two miles of streets.

Austin, Tex.—Press reports state that 33,000 sq.yd. of oiled gravel road will be constructed by day labor. M. C. Wellborn is Engr.

Galveston, Tex.—Press reports state that the Gulf, Colorado & Santa Fé Ry. plans to expend $6631 for paving.

Kountze, Tex.—At a recent election the citizens of Hardin County voted in favor of issuing $150,000 in bonds for constructing roads in Road District No. 1. Noted Feb. 18.

+Midlothian, Tex.—A contract has been awarded for constructing concrete sidewalks by the City Council to W. C. DAVIS & SONS, Ft. Worth, Tex.

Oakville, Tex.—An election will be held Mar. 27 to vote on the question of issuing $40,000 in bonds for constructing roads in Live Oak County.

Saratoga, Tex.—Bonds for $150,000 were sold Feb. 19, the proceeds of which will be used for building roads between Batson and Saratoga and half way to Sour Lake.

Uvalde, Tex.—Press reports state that $20,000 in bonds have been issued for improving streets.

Drumright, Okla.—The City Council contemplates paving Broadway, Pennsylvania and Ohio Ave.

Phœnix, Ariz.—An appropriation of $152,000 has been made for road work in Gila, Pinal and Yavapai Counties.

Colville, Wash.—Press reports state that plans are being prepared for constructing the Springdale Hunter Blvd.

Ephrata, Wash.—(Official)—Bids will be received until 2 p.m., Apr. 5, by C. T. Sanders, County Audr., for constructing two miles of water-bound macadam highway No. 5A. E. H. Stradling is County Engr.

Goldendale, Wash.—The Commissioners of Klickitat County contemplate an expenditure of $150,000 for constructing roads.

Lynden, Wash.—The City Council contemplates paving Fifth St. with brick. The estimated cost is $10,000.

Ritzville, Wash.—The City Council has decided to grade, gravel, culvert and drain 2¾ miles of streets.

Spokane, Wash.—Bids will be received until Apr. 6 by the County Commissioners for paving Rockford, Waverly and Dinnison Park Highway with asphalt macadam. The estimated cost is $150,000.

Walla Walla, Wash.—Bids will be received about Mar. 30 by M. A. Power, City Clk., for paving North Second, North Ninth and Whitman St. and Isaac Ave. The estimated cost is $35,000.

Olympia, Wash.—(Official)—The State Highway Commissioner wires Mar. 10 that the State Legislature has just appropriated $2,152,288 and reappropriated $153,640 for the construction and maintenance of state highways and $4,000,000 for the construction and maintenance of other permanent highways. In addition to these about $4,000,000 will be used for constructing and keeping county roads and bridges.

Hanford, Calif.—The city contemplates constructing about five miles of streets, at an approximate cost of $185,000. Max Enderlein is City Engr.

+Long Beach, Calif. — FAIRCHILD-GILMORE-WILTON CO. has been awarded the contract at $50,900 for improving Anaheim St. between Daisy Ave. and the west city limits, a distance of about one mile. Noted Feb. 18.

+Manhattan Beach, Calif.—THE CROWN CONTRACTING CO., Santa Monica, has been awarded the contract at $16,912 for improving a portion of Center St. Noted Feb. 11.

+Redding, Calif.—The City Trustees have awarded a contract for street paving to the CHICO CONSTRUCTION CO., of Chico, Calif., at $20,000.

+Redwood City, Calif.—(Official)—A contract for constructing 4.26 miles of paving on Menlo Park to Portola Rd., 2.10 miles of oil macadam and ½ mile concrete base on San Mateo Rd. to Half Moon Bay Rd. has been awarded to D. FLYNN, Redwood City, at $28,297. Other bids were: Spring Construction Co., $30,618; Blanchard-Brown, $29,563; Peterson-Grier, $29,454. Noted Feb. 18.

+San Francisco, Calif.—The Board of Public Works has awarded a contract for paving Portola Drive to HIRAM G. VAUGHAN, at $46,200.

San Francisco, Calif.—The Board of Works has ordered the paving of Connecticut St. from 19th St. to a point beyond 20th, and also the crossing of 19th and 20th. The cost estimated is $23,100.

London, Ont.—The City Council plans an expenditure of $200,000 for paving during 1915. H. A. Brazier is City Engr.

Orillia, Ont.—According to press reports the City Council contemplates an expenditure of $7600 for improving roads for 1915.

Stamford, Ont.—The City Council plans to pave a number of streets in the near future. J. C. Gardner, Queen St., Niagara Falls, is Engr.-in-Charge.

New Westminster, B. C.—The City Council plans to pave Sixth St. from Columbia to Third Ave. and Carnavon St. from Eighth St. to the bridge. T. W. B. Blackman is Engr.

Victoria, B. C.—Press reports state that bids will be received about Mar. 25 for paving Ash St. The estimated cost is $10,000.

INDUSTRIAL WORKS

Manchester, N. H.—The W. H. McElwain Co. plans the construction of an addition to its plant in South Manchester. Estimated cost, $100,000.

Cambridge, Mass — Harvard University plans to construct a $60,000 building for the "Crimson," one of the campus publications. Jardine, Hill & Murdock, 3 West 29th St., New York, N. Y., is Arch.

Worcester, Mass.—Plans have been prepared for the construction of a three-story cold-storage warehouse and office building at 219 Summer St. for Armour & Co., Union Stock Yards, Chicago, Ill.

Pawtucket, R. I.—Plans have been prepared for the construction of a three-story, 110x200-ft. brick factory on Barton St. for the Jenckes Spinning Co.

Bridgeport, Conn.—The Remington Arms Union Metallic Cartridge Co. plans to construct 17 four- and five-story buildings for its plant at Bridgeport. Frank O. Hoagland is Local Mgr. of the company.

+New Haven, Conn.—The contract for the construction of a six-story, 58x846-ft. factory for the Winchester Repeating Arms Co. has been awarded to the ABERTHAW CONSTRUCTION CO., 8 Beacon St., Boston, Mass. Estimated cost, $50,000. This is one of the many buildings to be constructed by this company.

+New Haven, Conn.—The contract for the construction of a two-story, 60x160-ft. factory on Fox St. for the Mysto Mfg. Co. has been awarded to LEWIS A. MILLER, 26 Church St., Meriden. Noted Feb. 4.

New Haven, Conn.—Plans have been prepared by R. W. Foote, 424 Chamber of Commerce Bldg., for the construction of a garage on York St. The main building will be one-story, 84x146 ft. with two wings, one, two-stories 46x50 ft., and the other, one-story 47x90 ft.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by G. H. Pelgram for the construction of a two-story, 38x77-ft. warehouse on 74th St. near Ave. A for the Manhattan Ry. Co., 165 Broadway. Estimated cost, $30,000.

New York, N. Y.—(Borough of Brooklyn)—The William Beckers Aniline & Chemical Works, 105-113 Underhill Ave., Brooklyn, has been incorporated with a capital of $1,000,000. The company plans to construct 23 buildings near Jamaica Bay, for manufacturing purposes.

+Bridgeton, N. J.—H. H. HANKINS & BRO. has been awarded the contract for the construction of a three-story, 63x150-ft. factory for the Sanitary Can Co., 447 West 14th St., New York, N. Y. Estimated cost, $20,000.

+Jersey City, N. J.—The STILLMAN DELEHANTY-FERRIS CO., 26 Exchange Pl., has been awarded the contract for excavation and piling for the building on First St., to be constructed by the Great Atlantic & Pacific Tea Co., at $0.75 per cu.yd. for excavating and $6.50 per cu.yd. for piling. Noted Feb. 11.

Chester, Penn.—T. Woodward Trainer, Secy. of the Chester Chamber of Commerce, is interested in a company that recently purchased half of the Roach Shipyard. The site will be used for the construction of a plant to manufacture paper and pulp board. Estimated cost, $300,000.

Philadelphia, Penn.—Plans have been prepared for the construction of a one-story, 140x179-ft. factory at 18th and Cambria St. for the Linde Air Products Co., 42nd St. Bldg., 42nd St., New York, N. Y. Noted Oct. 22 and Feb. 18.

Philadelphia, Penn.—Plans are being prepared by Schermerhorn & Phillips, Arch., for the construction of a six-story factory at 210 South 13th St. for Joseph H. Davidson's Sons.

Pittsburgh, Penn.—W. L. Davis, Glenshaw Ave., plans to construct a five-story garage and repair plant at Garrison and French St. The estimated cost is $38,000. Ellsworth Dean, 331 Fourth Ave., is Arch.

Pottstown, Penn.—E. H. Price & Co. will rebuild its plant recently destroyed by fire with a loss of $35,000.

+Scranton, Penn.—The contract for the construction of a two-story, 60x300-ft. factory for the Motor Kart Co., Inc., has been awarded to the PARSONS CONSTRUCTION CO. Noted Nov. 26 and Jan. 28.

Slatedale, Penn.—The Westinghouse Electric & Mfg. Co. plans to construct a factory for the manufacture of switchboards.

Baltimore, Md.—P. Kennedy will construct a one-story, 100x300-ft. foundry. The estimated cost is $150,000.

Suffolk, Va.—The Planters' Nut & Chocolate Co. plans to construct a five-story, 70x140-ft. brick addition to its plant.

Wheeling, W. Va.—J. E. Moss Iron Works plans to construct an addition at 28th and Market St. The estimated cost is $25,000.

+Charlotte, N. C.—The Savona Mfg. Co. has awarded the contract to the FISKE-CARTER CONSTRUCTION CO., Greenville, S. C., for the construction of a one-story, 125x200-ft. factory.

+Augusta, Ga.—The contract for the construction of a three-story, 60x120-ft. reinforced-concrete plant for Armour & Co., Union Stock Yards, Chicago, Ill., has been awarded to the EVANS BROS. CONSTRUCTION CO., Birmingham, Ala. J. Power will supervise the construction.

Rome, Ga.—J. F. Allison and R. L. Critchfield, Calhoun, are organizing a company to construct a bleaching plant. The estimated cost is $25,000.

Greenwood, Miss.—The Economic Power & Products Co. plans to construct ten buildings for the manufacture of pulp and chemical by-products from cotton stalks. William D. Miller, Lafayette Bldg., Philadelphia, Penn., is Secy.

+Memphis, Tenn.—J. E. HOLLINGSWORTH & CO. has been awarded the contract for the construction of a 200x200-ft. warehouse at Macon and Iowa St. for the Thomas Iron Co. The estimated cost is $30,000.

Paducah, Ky.—The Weyman-Burton Co. has increased its capital stock to $2,000,000. The company plans to construct a tobacco factory.

+Hamilton, Ohio—The contract for the construction of a roundhouse for the Cincinnati, Hamilton & Dayton Ry. has been awarded to PATRICK FARRELL, 1010 Second National Bank Bldg., Cincinnati. Estimated cost, $30,000.

+Chester, Ill.—The contract for the construction of a six-story plant for the H. C. Cole Milling Co. has been awarded to the GILSONITE CONSTRUCTION CO., Wainwright Bldg., St. Louis, Mo. Estimated cost, $80,000.

Chicago, Ill.—According to press reports plans have been prepared for the construction of a terminal and market at 39th St. and Ashland Ave. for the Produce Terminal Corporation. The estimated cost of the project is $20,000,000 and will be financed by the Chicago Junction Ry. and the Union Stock Yard & Transit Co. John A. Spoor is Chn. of both companies.

Milwaukee, Wis.—Charles H. Tharinger, Arch., 2324 State St., has prepared plans for the construction of a three-story, 90x130-ft. factory at Booth and George St. for the Lorenz Bros. Macaroni Co., 890 12th St. The estimated cost is $75,000.

+Oshkosh, Wis.—The contract for the construction of a three-story, 80x194-ft. factory for the Morgan Lumber Co. has been awarded to the FLUOR BROS. CONSTRUCTION CO. The estimated cost is $25,000.

Hesper, Mont.—(Foster post office)—The Montana Land & Farm Products Co., Billings, will start construction about May 1 on a canning factory at Cove Orchard near Hesper. Estimated cost, $45,000. T. F. Danaher, Minneapolis, Minn., is Pres. and C. B. Little is Vice-Pres.

+Weldon, Ark.—The contract has been awarded to B. R. McDEARMON for the construction of a plant for the Weldon Canning Co. The company was recently organized with a capital of $90,000. J. F. Bell is Pres. and George W. McDearmon is Secy.

Port Bolivar, Tex.—According to press reports a syndicate has been formed for the purpose of constructing an extensive system of terminals which will connect with the Atchison, Topeka & Santa Fé R.R. The estimated cost of the project is $2,000,000. Paul T. Bruyere, Engr., 50 Church St., New York, N. Y., is interested.

+Ogden, Utah—L. N. MEID has been awarded the contract for the construction of the superstructure of a five-story plant at Pacific Ave. and 29th St. for the Utah Cereal Food Products Co. The estimated cost is $120,000. J. S. Carver is Chn. and M. Browning is Pres. Noted May 14 and Sept. 3.

Ogden, Utah—The Utah Milling Co. will rebuild its plant recently damaged by an explosion with a loss of $30,000. Louis Peery is interested.

Anaheim, Calif.—Reuther & Hosda, Los Angeles, has purchased a 20-acre site and will construct a meat packing plant. The estimated cost is $50,000.

Los Angeles, Calif.—Plans have been prepared by E. P. Parcher for the construction of a 2½-story, 55x140-ft. reinforced-concrete warehouse on Highland Ave. near Hollywood Blvd. for the C. E. Toberman Co. The estimated cost is $25,000. John F. Blee is Engr.

San Leandro, Calif.—The Central California Canneries, 1 Drumm St., San Francisco, will construct an addition to its plant. The estimated cost is $25,000.

Westwood, Calif.—The Red River Lumber Co. will construct two buildings. One will be a 64x400-ft. addition to its sash and door factory and the other will be a 120x160-ft. addition to the box factory.

FEDERAL GOVERNMENT WORK

+Dredging—Port Chester, N. Y.—Contracts for dredging in Port Chester Harbor have been awarded to JOHN A. SEELY, 30 Church St., New York, N. Y., at $8000, and the MORRIS & CUMINGS DREDGING CO., New York, N. Y., at $18,000. Noted Jan. 28.

★+Dredging—New Jersey—The contract for dredging in Raritan Bay has been awarded to the MORRIS & CUMINGS DREDGING CO., 17 State St., New York, N. Y., and for dredging in Woodbridge Creek to the BAY DREDGING & CONTRACTING CO., 215 Montague St., New York, N. Y. No bids were received for dredging in Shrewsbury River. Noted Feb. 11 and Mar. 4.

★Boat Hulls, Etc.—Pittsburgh, Penn.—Bids will be received by Capt. Harold C. Fiske, U. S. Engineer Office, Pittsburgh, until noon, Apr. 3, for furnishing and delivering maneuver-boat hulls, steamboat and hand capstans, derricks, kevels, spuds, etc., for Dams Nos. 10, 12, 15, 19, 20 and 29, and engines and electric light plants, etc., for maneuver boats at Dams Nos. 10 and 29, Ohio River.

★Power House and Accessories—Pittsburgh, Penn.—Bids will be received until noon, Apr. 5, by Capt. Harold C. Fiske, U. S. Engineer Office, Pittsburgh, for constructing a power house, furnishing and installing boilers, compressors, etc., at Dam No. 10, Ohio River.

+Buildings—Indianhead, Md.—The contract for the construction of four dry houses for smokeless powder at the Naval Proving Ground has been awarded to JOHN H. NOLAN CONSTRUCTION CO., Washington, D. C., at $21,065. Noted Feb. 18.

+Remodeling Toilet Rooms—Washington, D. C.—The contract for remodeling the toilet rooms in the State, War and Navy Dept. Bldg., Washington, has been awarded to the STANDARD ENGINEERING CO., Woodward Bldg., Washington, D. C., at $82,825. Noted Mar. 4.

+Sewers—Washington, D. C.—Contracts have been awarded to WARREN F. BRENIZER CO., Washington, D. C., for the construction of Nailor's Run, Hawes' Run, and Burnt Bridge Run Trunk Sewers, Washington, D. C. Noted Mar. 4.

Grading—Washington, D. C.—Bids will be received until 2 p.m., Mar. 15, by the District Commissioners for grading certain streets. Oliver P. Newman, District Bldg., Washington, is one of the Comrs.

Traveling Crane—Washington, D. C.—Bids will be received until 11 a.m., Mar. 27, by H. R. Stanford, Chief, Bureau of Yards and Docks, Navy Dept., for furnishing one 15-ton, four-motor electric traveling crane at the navy yard, Washington.

+Wharves—Washington, D. C.—The contract for the construction of three wharves in the District of Columbia has been awarded to W. D. MURRAY & CO., INC., Norfolk, Va., at $21,791; ordinary excavation (2050 cu.yd.) at 49½c., revetment wall (546 lin.ft.) at $19.73, dredging (16,600 cu.yd.) at 49½c. Noted Mar. 4.

+Post Office—Chanute, Kan.—The contract for the construction of post office at Chanute has been awarded to MAYBEN & FRUECHTEL, Gadsden, Ala., at $51,630. Noted Dec. 24 and Feb. 4.

Brick Mess Hall—Pierre, S. D.—Bids will be received by Cato Sells, Comr. of Indian Affairs, Department of Interior, Washington, D. C., until 3 p.m., Mar. 30, for the construction of a brick mess hall at the Pierre School.

Barracks, Kitchen and Storehouse—Hot Springs, Ark.—Bids will be received by the Constructing Quartermaster until 11 a.m., Mar. 20, for constructing barracks, kitchen and storehouse at the Army and Navy Hospital, Hot Springs.

Post Office, Court House and Custom House—Corpus Christi, Tex.—Bids will be received until 3 p.m., Apr. 19, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a postoffice, court house and custom house at Corpus Christi.

Dredging—Port Aransas, Tex.—The following are the bids received for dredging at Port Aransas and on the channel from Aransas Pass to Corpus Christi, Tex.; R. A. Perry, 323 Security Bldg., Galveston, Tex., $85,424; Bowers Southern Dredging Co., Galveston, $77,132; Home Dredging Co., Mobile, Ala., $84,960; P. B. Miller, Houston, Tex., $74,158. Noted Feb. 11.

+Canal Work—Payson City, Utah—The following are the bids received for canal work in connection with lateral 30, High Line Canal, Strawberry Valley Reclamation project: Wasatch Grading Co., Salt Lake City, Utah, $47,083; Henser & Sim, Salt Lake City, Utah, $47,952; Ryberg Bros., Logan, Utah, $48,413; Reynolds-Ely Construction Co., Springville, Utah, $48,864; Messmer & Rice, Los Angeles, Calif., $49,359; Spanish Fork Grading Co., Spanish Fork, Utah, $54,476. Noted Jan. 28.

Addition to Dormitory—Tuba, Ariz.—Bids will be received by Cato Sells, Comr. of Indian Affairs, Dept. of the Interior, Washington, D. C., until 10:30 a.m., Mar. 24, for building an addition to the stone dormitory at the Western Navajo School.

Millwork—Panama—Bids will be received until 2 p.m., Mar. 12, by Maj. F. C. Boggs, Gen. Pur. Officer, Panama Canal, Washington, D. C., for furnishing cypress millwork for two two-story two-family quarters at Balboa.

MISCELLANEOUS

Scenic Railway—Agawam, Mass.—Josiah Pearce & Sons, New Orleans, La., will build a scenic railway at Riverside Park. The estimated cost is $50,000. Fred W. Pearce, Hotel Worthy, Springfield, Mass., is Local Mgr.

★✚Subway—Boston, Mass.—The contract for the construction of Section H of the Dorchester Tunnel has been awarded to the T. A. GILLESPIE CO., 50 Church St., New York, at $554,750. E. S. Davis, 15 Beacon St., is Ch. Engr., Transit Comn. Noted Mar. 4.

Pier—Scituate, Mass.—The Board of Selectmen has voted to construct a pier and public landing at the foot of Willow St. on the Cornelius Driscoll property. The estimated cost is $14,000.

Wharf and Bulkhead—New Haven, Conn.—It is reported that the Connecticut Co. plans to construct a wharf and bulkhead on its property at the foot of Ferry St. W. R. Dunham, Jr., is Engr.

Motor Fire Apparatus—Waterbury, Conn.—Bids will be received by the Board of Public Safety, 111 West Main St., until 8 p.m., Mar. 17, for furnishing two motor triple combination pump and chemical engines and hose carts. Motor must be six-cylinder and of 100 hp., having a capacity of 750 gal. per min. Alternate bid may be submitted for one motor engine as above and one tractor. An appropriation of $14,000 is available.

Park Improvements—New York, N. Y.—George W. Perkins, Chn., Palisade Interstate Park Comn., has requested the Assembly Ways and Means Committee to include in its appropriation bill, $130,000 for the maintenance of the park for the present fiscal year.

Pier—New York, N. Y.—(Borough of Manhattan)—The following bids were received by the Commissioner of Docks and Ferries for the construction of a pier at West 46th St. and North River: Hollbrook, Cabot & Rollins Corporation, 331 Madison Ave., $244,449; Stillman-Delahanty-Ferris, 26 Exchange Pl., Jersey City, N. J., $250,000; G. B. Sperin, 90 West St., $257,560; Phoenix Construction Co., 41 Park Row, $264,897; Geo. W. Rogers & Co., Inc., 29 Broadway, $268,860; McHarg-Barton Co., 171 Madison Ave., $283,896; Henry Steers, Inc., 17 Battery Pl., $286,452; Oscar Daniels Co., 233 Broadway, $289,000; H. P. Converse Co., 1 Union Sq., $316,030.

Oil and Broken Stone—New York, N. Y.—(Borough of the Bronx)—(Official)—Bids will be received until 10.30 a.m., Mar. 18, by the Borough President, for furnishing (1) 200,000 gal. coal tar oil for roads: (2) 200,000 gal. of tar road oil; (3) 200,000 gal. asphalt road oil; (4) 4000 cu.yd. of grits; (5) 1½ in. broken trap rock stone.

Balconies and Awnings—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by the Department of Public Charities, Municipal Bldg., until 10:30 a.m., Mar. 18, for furnishing the materials and installing fireproof balconies and awnings at the Reception Hospital, Randall's Island.

✚Elevated Railway Work—New York, N. Y.—(Borough of Brooklyn)—The Public Service Commission for the First District has approved the recommendation of the New York Municipal Ry. Corporation, in awarding the contract for constructing seven stations on the Fulton St. elevated railroad in Brooklyn to JOHN THATCHER & SON, at $258,664.

Market—Newark, N. J.—William S. Lehman, 738 Broad St., has prepared plans for a market to be constructed at Broad and Green St. It will be of reinforced-concrete, 64x150 ft.

Elimination of Grade Crossings—Ridgewood, N. J.—The Erie R.R. Co. plans to eliminate the grade crossing in this town. Bids will be received about Apr. 1. F. Havard, 50 Church St., New York, is Engr.

Subway—Philadelphia, Penn.—On Mar. 4 the Common and Select Councils passed a bill providing for an election Apr. 29 to vote on a loan of $6,000,000 for subway work. This includes the construction of a subway from League Island to Olney Ave., elevated spurs to the northeast and northwest and a Frankford elevated line from Front and Arch St. to Rhawn St. The bill went to the Mayor for his signature and he has until the next meeting of Councils, Mar. 18, to act upon it.

✚Dredging, Bulkhead and Retaining Wall—Baltimore, Md.—The Western Maryland R.R. has awarded contracts to SANDFORD & BROOKS CO., Baltimore, for 300,000 cu.yd. of dredging, 1124 ft. of reinforced-concrete bulkhead, and timber retaining walls, 177 and 375 ft. each.

Pier—Portsmouth, Va.—The Virginia Smelting Co. plans to construct a slag pier of sufficient length to berth several vessels; also with accommodations for **warehouses.**

Pier—Biloxi, Miss.—The Deer Island Construction Club is having plans prepared for the construction of a pier on the north side of Deer Island.

✚Drainage—Gonzales, La.—The Commissioners of the New River Drainage District have awarded the contract for the construction of 27 miles of canal to the D. B. GORE CO., Shreveport, at 6.75c. per cu.yd. Noted Mar. 4.

Canal—New Orleans, La.—The Dock Board has retained Ford, Bacon & Davis, 24 Broad St., New York, as engineer to prepare the plans for the river-to-lake canal.

Dredging—Cleveland, Ohio—The lowest bid submitted to the Commissioner of Purchases and Supplies for dredging in the Cuyahoga River was that of the Great Lakes Dredge & Dock Co., at 16.45c. per cu.yd. Noted Feb. 25.

Recreation Center and Fire Apparatus—Columbus, Ohio—The City Council has passed ordinances appropriating $25,000 for Glenwood Park Recreation Center, $10,000 for fire hydrants and $60,000 for motor fire equipment.

Ditch—Columbia City, Ind.—Bids will soon be received for the construction of the Benjamin F. Shull ditch. It will be 16 miles long and will drain Washington, Jefferson, Clearcreek and Jackson townships. The estimated cost is $28,000. J. Earl Plummer is Comr. of Const.

✚Cement—DePere, Wis.—The County Highway Commissioner has awarded the contract for furnishing 10,000 bbl. of portland cement for the DePere-Green Bay concrete road project, to the BARKHAUSEN COAL CO., Green Bay, Wis., at $1.30 per bbl.

✚Retaining Wall—Cedar Rapids, Iowa—The contract for the construction of the 26-ft. reinforced-concrete river wall, including sidewalk and stairs, has been awarded to FRANK K. HAHN, at $31,238. Noted Feb. 18.

Ditch—Blue Earth, Minn.—Bids will be received until 11 a.m., Mar. 19, by J. L. Herring, County Audr., for the construction of County Ditch No. 27. Work includes laying 18,000 ft. of 6- to 20-in. tile.

Ditch—Fairfax, Minn.—All bids received for the construction of Ditch 57 have been rejected. New bids will be received until 1 p.m., Mar. 15.

✚Ditch—International Falls, Minn.—The contract for the construction of Judicial Ditch No. 18, including 8.06 miles of ditching and 800 acres of grubbing and clearing, has been awarded to the INTERNATIONAL FALLS CONSTRUCTION CO.

Ditch—Olivia, Minn.—Bids will be received until Mar. 15 by J. L. Johnson, County Audr., for the construction of County Ditch No. 57. Estimated cost, $13,120.

Ditch—Roseau, Minn.—Plans are being prepared and bids will be received about June 1, for the construction of Judicial Ditch No. 21. It will be open dredge work. The estimated cost is $100,000. G. A. Ralph, St. Paul, is Engr.

Roofing and Sheet Metal Work—St. Cloud, Minn.—(Official)—Bids will be received until 2 p.m., Mar. 23, by the State Board of Control, for furnishing the structural steel, cast iron work, steel sash, roofing, and sheet metal work necessary for the construction of a power house at the State Reformatory, St. Cloud. C. H. Johnston, 715 Capital Bank Bldg., St. Paul, is Arch.

Ditch—Slayton, Minn.—Bids will be received until Mar. 24 by E. V. O'Brien, County Audr., for the construction of Judicial Ditch No. 3. The estimated cost is $72,882.

Drainage—Cordele, Tex.—Jackson County Drainage District No. 7 has had plans prepared for the drainage of 15,000 acres. A bond issue of $30,000 will be voted on Apr. 10, the proceeds to defray the cost. W. C. Youngs, Edna, Tex., is Engr.

✚Dredging Canal—Harlingen, Tex.—Cameron County Irrigation District No. 1 has awarded the contract for dredging 190,000 cu.yd. of silt from the canals to the W. E. CALLAHAN CONSTRUCTION CO., San Benito, Tex., at 14.5c. per cu.yd.

Dredging—Orange, Tex.—The Orange County Navigation Board proposes to use the remaining $45,000 in the appropriation fund for deepening the channel from Orange to the Gulf, in widening and improving the Sabine-Neches Channel.

Terminal—Port Bolivar, Tex.—See item under "Industrial Works."

Pipe Line—Lakes Albert and Summer, Ore.—The State Legislature has recently ratified a lease made by the State Land Board, to Jason C. Moore, 141 Broadway, New York, permitting the extraction of the salts from the waters of the lakes. The lease will run for 400 years. It is stated that $2,000,000 will be spent in constructing a pipe line and considerably more on a manufacturing plant.

✚Wharf—Richmond, Calif.—The City Council has awarded the contract for the construction of municipal wharf No. 1 to the HEALY-TIBBITS CONSTRUCTION CO., San Francisco, at $212,344.

Fire Stations—San Francisco, Calif.—Ward & Blohme, Arch., is preparing plans for two fire-houses to be constructed at an estimated cost of $70,000.

✚Pier—Venice, Calif.—Press reports state that the contract for constructing the Windward Ave. pier has been awarded to CHARLES A. CORBALEY, Los Angeles, at about $100,000.

Breakwater—Fort William, Ont.—Press reports state that the contract for constructing the extension to the Ft. William breakwater has been awarded to the THUNDER BAY CONSTRUCTION CO., at $250,000.

Cement—Toronto, Ont.—Bids will soon be received by the Board of Control for furnishing 100,000 bbl. of cement. All previous bids were rejected. R. C. Harris is Comr. of Wks.

Breakwater and Piers—Victoria, B. C.—The Dominion Government has been reported as having appropriated $1,400,000 for the construction of breakwaters and outer piers in the local harbor. An appropriation of $250,000 has also been made for completing the drydock at Esquimault.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Brunswick, Maine—Allen & Collins, Boston, Mass., and Felix A. Burton, Brunswick, are preparing plans for the construction of a two-story high school. Estimated cost, $50,000.

Durham, N. H.—The Board of Directors of the State College of New Hampshire contemplates the construction of a dormitory and the Commons Bldg. Estimated cost, $135,000. E. T. Fairchild is Pres.

Manchester, N. H.—The Board of Education contemplates the construction of a high school. Estimated cost, $350,000.

Boston, Mass.—Preliminary plans are being prepared by S. W. St. Clair and R. Clipston Sturgis, 120 Boylston St., for the construction of a 10-story building at Park Sq. near Arlington and St. James St., for the Women's Board of Trade of Massachusetts. Estimated cost, $250,000.

✚Newton, Mass.—The contract for the construction of a church and a parish house for the Second Congregational Church has been awarded to NORCROSS BROS., Worcester, Mass. Estimated cost, $150,000.

Maynard, Mass.—The Board of Education contemplates the construction of a high school. Estimated cost, $50,000.

Southbridge, Mass.—Bids will be received about Mar. 25 for the construction of a three-story, 45x110-ft. apartment block for T. F. Murphy. Estimated cost, $50,000. Samuel F. McIntosh, 1401 Turk's Head Bldg., Providence, R. I., is Arch.

Springfield, Mass.—The Board of Education contemplates the construction of a high school at West Springfield. Estimated cost, $120,000.

Swansea, Mass.—Preliminary plans are being prepared for the construction of a high school. Estimated cost, $50,000. Mrs. Frank S. Stevens is interested.

Worcester, Mass.—Bids will be received soon for the construction of a six-room addition to the Cambridge St. School. Estimated cost, $53,327.

Providence, R. I.—Bids will be received by W. E. Hartwell, Comr. Pub. Works., for the construction of the Laurel Hill Ave. School. Estimated cost, $190,000. Clark & Howe, 76 Weybosset St., is Arch. Noted Jan. 7.

★**Kings Park, N. Y.**—(Official)—Bids will be received until 2:30 p.m., Mar. 18, by the State Hospital Commission, Capitol, Albany, N. Y., for the construction of an addition to the Kings Park State Hospital. Lewis F. Pilcher is State Arch.

New Rochelle, N. Y.—Bids will be received until Mar. 15 for the construction of additions to the hospital on Guion St. for the New Rochelle Hospital Association. Estimated cost, $90,000. Edward F. Stevens, 9 Park St., Boston, Mass., is Arch. Noted Dec. 3.

New York, N. Y.—(Borough of Bronx)—Plans are being prepared by George F. Pelham, 30 East 42d St., for the construction of a five-story, 25x110-ft. apartment house at Elsmere Pl. and Daly Ave., for the Defender Construction Co., 20 Nassau St. Estimated cost, $50,000.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Hoppin & Koen, Arch., 224 Fifth Ave., for the construction of a building at 15 East 66th St., for Harris Fahnestock. Estimated cost, $100,000.

New York, N. Y.—(Borough of Manhattan)—Young & Wagner has prepared plans for the construction of two six-story apartment houses on 161st St. near Ft. Washington Ave. for the Hudson View Construction Co., 189 Broadway. Estimated cost, $300,000.

✚**New York, N. Y.**—(Borough of Queens)—The general contract for the construction of Public School No. 97 at Yarmouth and Shipley St., has been awarded to TRYMIER & HANNA CO., 25 West 45th St., New York, N. Y. Estimated cost, $160,000. Noted Feb. 18.

Rochester, N. Y.—Preliminary plans are being prepared by Clarence A. Livingston, Troop H of the National Guard, for the construction of an armory. Estimated cost, $150,000.

✚**Syracuse, N. Y.**—The contract for the construction of a parochial school at Montgomery and Madison St. for the Cathedral of the Immaculate Conception Parish has been awarded to the O'BRIEN CONSTRUCTION CO., at $75,000. Noted Nov. 12.

★**Watervliet, N. Y.**—(Official)—Bids will be received until 2 p.m., Mar. 22, by the Board of Contract & Supply, 1520 Broadway, Watervliet, for the construction of a three-story, 70x110-ft. City Hall at 15th St. and Broadway. Demers, Mosley & Campaign, Troy, N. Y., is Arch. Noted Feb. 11.

Whitesboro, N. Y.—Preliminary plans are being prepared for the construction of a school on Main St. Estimated cost, $75,000.

Asbury Park, N. J.—Plans have been prepared by Leon Cubberly, Record Bldg., Long Branch, N. J., for the construction of a moving picture theater for J. Walter Butcher, 301 First Ave. Estimated cost, $75,000.

Cliffside Park, N. J.—(Cliffside post office)—Ernest Sibley, Palisade Park, N. J., is preparing plans for the construction of Public School No. 3 at Palisade and Riverview Ave. Estimated cost, $85,000. Joseph Whalen is Pres. of Bd.

Garfield, N. J.—(Passaic post office)—The Board of Education contemplates the construction of a two-story high school. Estimated cost, $90,000. Charles H. Wright is Pres. of Bd.

Jersey City, N. J.—Bids will be received by John T. Rowland, Jr., 98 Sip Ave., for the construction of a three-story home for the blind on Pavonia Ave. near Baldwin Ave., for St. Joseph's Home for the Blind Sisters. Estimated cost, $100,000.

✚**Perth Amboy, N. J.**—The general contract for the construction of a church on Buckingham Ave. for St. Stephen's Church has been awarded to IRA R. CROUSE, at $71,300. Edwin F. Durang & Son is Arch.

Cornopolis, Penn.—Thomas Hannah, Arch., Keenan Bldg., Pittsburgh, has completed plans for the construction of a two-story, 73x140-ft. building for the First U. P. Church. Estimated cost, $50,000.

Johnstown, Penn.—The Board of Trustees of Memorial Hospital contemplates the construction of an addition to the hospital. Estimated cost, $50,000.

McKeesport, Penn.—Bids will be received until Apr. 1 by N. T. Morton, Secy. Bd. School Dirs., for the construction of a two-story, 140x190-ft. high school. Estimated cost, $200,000. Vrydaugh & Wolfe, Pittsburgh, is Arch.

Mt. Pleasant, Penn.—Plans are being prepared by Howard C. Frank, Arch., House Bldg., Pittsburgh, for the construction of a two-story building for the Visitation Church. Estimated cost, $50,000.

Philadelphia, Penn.—Plans have been prepared by Frederick Weber, Arch., Morris Bldg., for the construction of a 14-story, 47x117-ft. apartment house. Estimated cost, $1,000,000.

Pittsburgh, Penn.—Bids will be received until Apr. 1 for the construction of a temple on Grant Blvd. and Lytton Ave. for the Syria Improvement Co. Estimated cost, $300,000. Huehl, Schmidt & Holmes, Chicago, Ill., is Arch. Noted Jan. 7.

Pittsburgh, Penn.—Plans have been prepared by Henry Hornbostle, Arch., for the construction of a three-story building for Carnegie Institute of Technology. Estimated cost, $300,000.

Rochester, Penn.—Bids will be received until Mar. 26 by G. H. Karcher, Secy. Bd. of Education, for the construction of a high school. Estimated cost, $85,000.

✚**Scranton, Penn.**—The contract for the construction of a clubhouse for the Y. M. H. A. has been awarded to E. A. FULLER, at $50,000. Isidore Finkelstein is Chn. of Bldg. Com.

Wilkes-Barre, Penn.—Plans are being prepared by Leon H. Lempert & Son, Arch., Rochester, N. Y., for the construction of a three-story, 62x216-ft. theater and office building for the Savoy Amusement Co. Estimated cost, $100,000.

Wilkes-Barre, Penn.—Preliminary plans are being prepared for the construction of a building at 185 South Franklin St. for the Church of Christ Scientist. Estimated cost, $200,000.

Baltimore, Md.—Preliminary plans are being prepared by Ellicott & Emmart, 1102 Union Trust Bldg., for the construction of an eight-story building at Charles and Saratoga St. Estimated cost, $200,000.

Baltimore, Md.—Plans are being prepared by Parker, Thomas & Rice, 1109 Union Trust Bldg., for the construction of a 15-story building at Lexington and Liberty St., for Harry E. Karr, 1301 Fidelity Bldg. Estimated cost, $1,000,000.

Washington, D. C.—Plans are being prepared by B. Stanley Simpson, 1340 New York Ave., N. W., for the construction of a seven-story apartment house at New Hampshire Ave. and 16th St., N. W., for James O'Donnell. Estimated cost, $250,000.

Washington, D. C.—Plans are being prepared by Milburn, Heister & Co., 603 Union Savings Bank Bldg., for the construction of a five-story, 92x96-ft. office building for the Potomac Electric Power Co. Estimated cost, $75,000.

✚**Huntington, W. Va.**—The contract for the construction of a three-story, 140x245-ft. high school has been awarded to HENRY PERSUN, at $246,000. Noted Jan. 21.

✚**Clemson College, S. C.**—The general contract for the construction of a Y. M. C. A. building at Clemson College has been awarded to THOMAS W. COTHRAN, Greenwood, S. C. Estimated cost, $75,000. Noted Jan. 21 under Columbia, S. C.

Atlanta, Ga.—P. Thornton Marye, Arch., is preparing plans for the construction of a municipal hospital. Estimated cost, $50,000.

Rome, Ga.—Bids will be received until Mar. 22 by J. D. Hanks, Mayor, for the construction of a two-story city hall and auditorium. Estimated cost, $90,000. A. Ten Eyck Brown, 607 Realty Trust Bldg., Atlanta, is Arch.

Jacksonville, Fla.—Bids are being received by the County Commissioners for the construction of a three-story, 154x178-ft. armory. Estimated cost, $150,000. W. B. Talley is Arch. Noted Nov. 12, 1914.

Sanford, Fla.—Plans are being prepared by E. J. Moughton for the construction of a three-story hotel for R. D. Warring, Kissimmee, Fla. Estimated cost, $100,000.

✚**Alexandria, La.**—The general contract for the construction of a six-story building at Third and Johnston St. for the Commercial Bank & Trust Co., has been awarded to NICOL, LANGFORD & JOHNSTON, Louisville, Ky. Estimated cost, $120,000.

Louisville, Ky.—Plans are being prepared by J. E. Henry, Arch., for the construction of a two-story school. Estimated cost, $75,000.

Canton, Ohio—(Official)—Bids will be received until noon, Mar. 17, by W. C. Lane, Clk., Bd. of Education, for the excavating and shoring of the Central High School. Bids will be received about Apr. 1 for the general contract. George F. Hammond, 4220 Prospect Ave., Cleveland, is Arch. Noted Jan. 28.

Cleveland, Ohio—Bids will be received Mar. 15 by the Board of Education for the construction of the three-story Central School on Central Ave. Estimated cost, $175,000. W. R. McCormack is Arch.

Cleveland, Ohio—Bids will be received Mar. 15 by the Board of Education for the construction of a three-story school on Almira Ave. and 98th St. Estimated cost, $200,000. W. R. McCormack is Arch. Noted Oct. 22 and Dec. 3.

✚**Cleveland, Ohio**—The general contract for the construction of the Corlett School has been awarded to BOLTON & PRATT CO., Columbia Bldg. Estimated cost, $95,000.

Cleveland, Ohio—Bids will be received Mar. 15 by the Board of Education for the construction of the three-story Haseldell School on East 123d St. Estimated cost, $150,000. W. R. McCormack is Arch.

Cleveland Heights, Ohio—(Warrensville post office)—Bids will be received until Mar. 15 for the construction of a four-story building on Mayfield and Lee Rd. for the Cleveland Heights Masonic Lodge. Estimated cost, $100,000. F. W. Striebinger, 1900 Euclid Ave., is Arch. Noted Jan. 7.

Columbus, Ohio—F. L. Packard, New Hayden Bldg., has revised plans for the construction of a two-story, 187x200-ft. proposed interurban freight and passenger station for the Columbus Depot Co. Estimated cost, $500,000. Frank A. Davis is Pres. Noted Sept. 24, 1914.

Columbus, Ohio—Bids were received Mar. 2 by the Board of Education for the general contract for the Studer Ave. School as follows: D. W. McGrath, $182,385; I. H. Evans & Co., $187,587; John Hina, $199,656; H. H. Carr, $202,532; Dawson Construction Co., Pittsburgh, Penn., $202,970; E. E. Beckett, $204,560; Patrick Shanahan, $196,443; B. S. Smith, $197,800; J. W. Heckart, $189,500; A. M. Fry, Piqua, Ohio, $189,511.

Dayton, Ohio—Bids will be received Mar. 29 by C. J. Schmidt, Clk. Bd. of Education, for the construction of the Dayton View School at Cambridge, Yale and Euclid Ave. Estimated cost, $135,000. All bids recently received for this work were rejected. Schenck & Williams, Arcade Bldg., is Arch. Noted Mar. 4.

Findlay, Ohio—Preliminary plans are being prepared for the construction of a lodge building for the B. P. O. E. Estimated cost, $100,000.

Fremont, Ohio—At the election to be held this spring the question of issuing $300,000 in bonds for the construction of a court house will be submitted to the voters. S. H. Shively has prepared plans.

Mt. Vernon, Ohio—The Board of Trustees of the Vine St. Church of Christ contemplates the construction of a building. Estimated cost, $50,000.

+Springfield, Ohio—(Official)—The contract for the construction of a four-story dormitory for boys at the Ohio Masonic Home has been awarded to the CULLEN & VAUGHN CO., Hamilton, Ohio. Estimated cost, $60,000. Noted Jan. 21.

Anderson, Ind.—The City Council plans the construction of a city hall on North Main St. The estimated cost is $75,000.

+Evansville, Ind.—The contract for the construction of a 10-story office building for the Citizens' National Bank has been awarded to the GEORGE A. FULLER CO., 111 Broadway, New York, N. Y., at $265,000.

Munising, Mich.—Bids will be received until Mar. 22 by G. S. Collins, Secy. of Bd. of Education for the construction of a two-story, 65x115-ft. school. The estimated cost is $75,000. Noted Oct. 1 and 15.

Sandusky, Mich.—(Official)—The proposition to rebuild the court house recently destroyed by fire will be voted upon Apr. 5. The estimated cost of the work is $80,000. Noted Feb. 25.

Belleville, Ill.—The Belleville Township High School Board contemplates the construction of a school to cost about $225,000.

Oak Park, Ill.—The St. Catherine of Sienna parish will construct a church and school at Washington Blvd., Austin and Humphrey Ave. The estimated cost of the church is $150,000 and the school, $75,000. Rev. J. M. Bowen is Pastor.

Rockford, Ill.—Bids will soon be received by the Board of Education for the construction of a school. The estimated cost is $75,000.

Chilton, Wis.—The St. Mary's congregation is planning to rebuild its church and parochial school recently destroyed by fire. Estimated cost, $75,000. Rev. L. N. Thelen is Pastor.

Eau Claire, Wis.—Bonds to the extent of $150,000 will soon be voted on for the construction of a city hall and auditorium.

La Crosse, Wis.—The Board of Trustees of St. Francis Hospital plans to construct two wing additions. The estimated cost is $100,000.

+Milwaukee, Wis.—The general contract for the construction of an apartment house at Prospect Ave. and Lafayette Pl. for Marggraff Bros. has been awarded to the WILLIAM DALLMAN MASON & BUILDING CO. Estimated cost, $80,000.

Milwaukee, Wis.—Bids will be received about Mar. 15 by Kirchoff & Rose, Arch., 1312 Majestic Bldg., for the construction of the 110x150-ft. Palace Hippodrome Theater at Grand Ave. and Sixth St. It will have a seating capacity of 3000 and cost about $350,000. Noted Mar. 4.

Milwaukee, Wis.—Plans are being prepared by Wolff & Ewens, Arch., 437 East Water St., for the construction of a theater, store and office building at Third St. near Grand Ave. for the Fred Miller Brewing Co., 39th and State St. Estimated cost, $200,000.

Rhinelander, Wis.—Construction will be started about Apr. 15 on the $75,000 hotel for the Rhinelander Advancement Association. George B. Herman, Antigo, is Arch. and Engr. Noted Jan. 14.

Stevens Point, Wis.—Bids are being received by E. Buelmaier & Sons, Arch., 41 University Bldg., Milwaukee, for the construction of a four-story 60x155-ft. addition to the St. Joseph's Academy near Stevens Point. The estimated cost is $80,000.

Superior, Wis.—An election will be held Apr. 6 to vote on the proposition of issuing bonds for the construction of a municipal auditorium to cost about $75,000. R. E. McKeogue is City Clk.

Waukesha, Wis.—The Board of Education will petition the Common Council to appropriate $134,000 for the construction of schools. Noted Feb. 25.

Crosby, Minn.—The School Board of Independent School District No. 51 is planning the construction of a high school. Estimated cost, $150,000.

Hutchinson, Kan.—W. E. Hulse & Co., Arch., has prepared plans for the construction of a two-story, 65x165-ft. theater for Lee L. Wilson, 202 North Ninth St. The estimated cost is $60,000. Contracts will be awarded Apr. 15.

Topeka, Kan.—The Grand Lodge A. F and A. M. will construct a $50,000 office building at Eighth and Harrison St. The Masons also contemplate the construction of Scottish Rite Temple at Tenth and Van Buren St. It will cost about $250,000. Albert K. Wilson is Grand Secy.

Wichita, Kan.—Bids will soon be received by the Board of Education for the construction of a school on Emporia Ave. and Pine St. for the Webster District. Estimated cost, $50,000. A. A. Crowell and George W. Van Meter, Caldwell Murdock Bldg., are Arch. Noted Nov. 12.

Pierre, S. D.—See item under Federal Government Work, Brick Mess Hall.

+Sioux Falls, S. D.—The contract for the construction of a school has been awarded to the SIOUX FALLS CONSTRUCTION CO., at $57,890. Noted Sept. 17 and Jan. 21.

+Yankton, S. D.—The contract for the construction of a building for the Yankton College has been awarded to the WOLD CONSTRUCTION CO. Estimated cost, $85,000.

Cheyenne, Wyo.—The Legislature of Wyoming is considering the appropriation of $150,000 for enlarging the State Capitol.

Butte, Mont.—Wilson & Cutting, Arch., is preparing plans for the construction of a bank building for W. H. Clarke & Bro. The estimated cost is $60,000.

+Great Falls, Mont.—The contract for the construction of the New Park Hotel has been awarded to LEIGHLAND, KLEPPE & CO., at $126,835. George H. Shanley is Arch.

Miles City, Mont.—School District No. 1 will vote, Apr. 1, on the question of issuing $60,000 in bonds for the construction of an addition to the Washington School.

+St. Louis, Mo.—The contract for the construction of a building for the Missouri Athletic Association, Fourth and Washington St., has been awarded to the WILLIAM SUTHERLAND BUILDING & CONTRACTING CO., Seventh and Chestnut St., at $302,036. Noted July 30, Aug. 27 and Dec. 31.

Austin, Tex.—Bids are being received for the construction of a two-story addition to the Littlefield Bldg. The estimated cost is $50,000. C. H. Page & Bro. is Arch.

Dallas, Tex.—The Dallas Labor Temple Building Association has had plans prepared for the construction of a three-story building at Federal and Masten St. David G. Hinckler is Chn. and Gen. Mgr.

El Paso, Tex.—(Official)—Plans are being prepared and will be completed about June 1 for the construction of an addition to the Y. M. C. A. building. H. D. Durkee is Gen. Secy. Noted Feb. 25.

Ft. Worth, Tex.—An election will be held Apr. 6 by the Commissioners Court of Tarrant County to vote on the question of issuing $350,000 in bonds for the construction of a county jail. Noted Nov. 19 and Jan. 28.

San Angelo, Tex.—The Trustees of Public Schools have had plans prepared for the construction of a high school. Estimated cost, $80,000.

Okmulgee, Okla.—The citizens will vote about Apr. 1 on the question of issuing $150,000 in bonds for the construction of a county court house. C. W. Gorce is County Clk.

Tulsa, Okla.—J. W. Hawk, Arch., Ohio Bldg., has prepared plans for the construction of a two-story, 67x80-ft. library. The estimated cost is $55,000.

Loveland, Colo.—An election will be held May 3 to vote on the question of issuing $100,000 in bonds for the construction of a high school.

Ogden, Utah—(Official)—Plans are being prepared by Henry H. Meyers, Arch., San Francisco, Calif., and construction will begin June 1 on the apartment house at 26th St. and Washington Ave. for the Federal Land & Mortgage Co., Eccles Bldg., Ogden. The estimated cost is $200,000. Noted Feb. 25.

Seattle, Wash.—The State Senate has passed a bill authorizing a bond issue of $4,000,000. The proceeds will be used to complete state buildings in Seattle. Wilder & White, Temple of Justice, is Arch.

Walla Walla, Wash.—Bids are being received for the construction of a courthouse to cost $150,000. Osterman & Siebert is Arch. The contract will be awarded about Apr. 1. Noted Oct. 23 and Nov. 6, 1913, and Jan. 7 and 28, 1915.

Huntington Beach, Calif.—A bond issue of $70,000 has been voted by the citizens for the construction of a high school.

Los Angeles, Calif.—The Board of Education is having plans prepared by Norman F. Marsh, Arch., 214 Broadway, for the construction of a group of high school buildings at Hooper Ave. and 38th St. Estimated cost, $200,000.

Los Angeles, Calif.—Needham & Cline, Arch., 615 Brockman Bldg., has prepared plans for the construction of an addition to the Lincoln High School at Pritchard St. and North Broadway. The estimated cost is $90,000.

+Oakland, Calif.—The contract has been awarded to the CLINTON FIREPROOFING CO. OF CALIFORNIA, Mutual Bank Bldg., San Francisco, at $141,700, for the construction of the Clawson School. A. L. Hannaford is Secy. of Bd. of Education. Noted Dec. 3.

Oakland, Calif.—Plans have been prepared by Carl Werner, Arch., Phelan Bldg., San Francisco, for the construction of a Class A office and theater building at 14th and Franklin St. The estimated cost is $600,000.

Owensmouth, Calif.—Plans are being prepared by Dennis & Hewitt, Arch., 618 Fay Bldg., Los Angeles, for the construction of a two-story, 63x230-ft. high school. Estimated cost, $75,000. Noted Nov. 26 and under Los Angeles, Calif., Dec. 24.

+Rio Vista, Calif.—The CONSTRUCTION & ENGINEERING CO., San Francisco, at $55,000, has been awarded the contract for the construction of a two-story school. Henry C. Smith, Humboldt Bank Bldg., San Francisco, is Arch. Noted Nov. 26.

+Roseville, Calif.—The contract for the construction of a one-story school has been awarded to O'ROURKE & BRADY, San Francisco, at about $50,000. W. H. Weeks, 75 Post St., San Francisco, is Arch.

Sacramento, Calif.—Carl Werner, Arch., Phelan Bldg., San Francisco, is preparing plans for the construction of a lodge building on 28th and L St. for the Scottish Rite Cathedral Association. The estimated cost is $125,000.

San Bernardino, Calif.—Bonds to the amount of $150,000 have been sold by the Board of Supervisors for the construction of county hospital buildings. Noted Oct. 1.

San Fernando, Calif.—Bonds have been sold for the construction of two high school buildings for the San Fernando Union High School District. The buildings will be reinforced-concrete and cost about $125,000. John C. Austin, Baker-Detwiler Bldg., Los Angeles, is Arch. Noted Oct. 28.

San Pedro, Calif.—Joseph Bell De Remer, Arch., 624 Title Insurance Bldg., Los Angeles, is preparing plans for the construction of a two-story school on Fifth St. The estimated cost is $75,000.

San Rafael, Calif.—Plans are being prepared by Thomas O'Connor, County Arch., 104 D St., for the construction of a two-story jail. The estimated cost is $60,000.

Woodland, Calif.—The County Supervisors are considering the construction of a court house. Estimated cost, $250,000.

Toronto, Ont.—The Board of Education has approved a recommendation of $520,000 made by the Budget Committee for the construction of a collegiate building.

Toronto, Ont.—F. E. Belfry, Arch., City Hall, is preparing plans for the construction of a high school to replace the Jarvis St. School. The estimated cost is $300,000.

+Vancouver, B. C.—The contract for the construction of an addition to the Vancouver General Hospital has been awarded to BOOKER, CAMPBELL & WHIPPLE, Williams Bldg. Estimated cost, $50,000. Noted Jan. 14.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

RAILWAYS

Pennsylvania—Western Maryland R.R.—According to press reports, this company will build a spur from its Connellsville Division into the Jenners-Quemahoning coal field in Somerset County. H. R. Pratt, Baltimore, Md., is Ch. Engr.

North Carolina—Avery Northwestern Ry.—This company has been incorporated to construct a railway from Edgemont to Newland, N. C., about 20 miles. The incorporators are W. W. Barber, Edgemont; A. P. Brinkley, E. C. Guy, C. B. Dancannon and J. W. Ragland, Newland. Noted Mar. 4.

Georgia—Savannah & Northwestern Ry.—This company contemplates the extension of its line from Waynesboro to Augusta, Ga., about 27 miles. Richard Morgan, Savannah, is Gen. Mgr.

✚Florida—Palm Beach & Everglades Ry.—This company has awarded the contract for the construction of a railway from Palm Beach to Lake Okeechobee, about 40 miles, to the EVERGLADES CONSTRUCTION CO. Noted Jan. 21.

Ohio—Cadiz & New Athens R.R.—Plans are being made by this company for the construction of a branch from Adena to Cadiz, Ohio.

South Dakota—Fairmount & Veblen Ry.—This company contemplates the construction of a railway from Mitchell to Wheeler, S. D. J. Rosholt, Fairmount, N. D., is Pres.

Arkansas—Poinsett Lumber & Mfg. Co.—Surveys are being made by this company for the extension of its logging road from Trumann to Harrisburg, Ark.

Texas—Quitman, Sulphur Springs & Great Northern Ry.—(Official)—We are advised that this company has completed preliminary surveys and plans to start construction about May 1 on its proposed railway from Quitman to Sulphur Springs, Tex. F. A. Palmer, Quitman, is Gen. Mgr. Noted Mar. 4.

New Mexico—Arizona & New Mexico Ry.—This company contemplates the construction of a 3½-mile branch line from Lordsburg, N. M., to a point in Grant County. P. Reisinger, Clifton, Ariz., is Ch. Engr.

Idaho—Eagle Pine Lumber Co.—The construction of a nine-mile standard gage railway to its property at Union, Idaho, is contemplated by this company. Clarke Bros. is the owner.

Washington—Spokane & British Columbia R.R.—Plans are being prepared by this company for the extension of its line from Republic to Spokane, Wash. F. M. Holland, Republic, is Gen. Mgr.

Alberta—Entwistle & Southern Alberta Ry.—Pringle, Thompson, Burgess & Cote, Ottawa, Ont., has applied for a charter for this company for the purpose of constructing a railway from Entwistle, Alta., to the Saskatchewan River, about 50 miles.

ELECTRIC RAILWAYS

Worcester, Mass.—The Worcester Consolidated St. Ry. Co. contemplates an expenditure of $75,000 for the improvement of its lines in Worcester. H. C. Page, Worcester, is Gen. Mgr.

Bristol, Conn.—The Bristol & Plainville Tramway Co. has applied to the Council for a franchise to construct a railway on Park St. C. E. Cockings, Bristol, is Mgr.

Hartford, Conn.—The New Britain St. Ry. Co. has applied for a franchise in Hartford. This is part of a proposed line to connect Hartford, New Britain, Plainville and Bristol.

New Britain, Conn.—The Connecticut Co. has applied to the City Council for a franchise to construct an electric railway on Farmington Ave. F. L. Beardsley, New Britain, is Supt.

Stafford Springs, Conn.—The Stafford Springs & Monson St. Ry. Co. is making financial arrangements for the construction of its proposed line from Stafford Springs to Monson. Robert H. Fisk, Stafford Springs, is interested. Noted Dec. 26, 1912 and June 26, 1913.

Gowanda, N. Y.—Interest in the construction of an electric railway to connect Gowanda, Buffalo and Jamestown is being revived. The right-of-way for the line has been secured and franchises are being sought from various towns along the route. J. B. Anderson, Ellington, and Franklin E. Ward, Gowanda, are interested in the project.

Lancaster, N. Y.—The Buffalo & Depew Ry. Co. contemplates the construction of an extension to its line from Lancaster to Bowmansville. George A. Ricker, Buffalo, is Ch. Engr.

Harrison, N. J.—The Public Service Ry. Co. will lay new rails on Harrison Ave. between Passaic and Fourth Ave., with new granite block paving between the tracks. R. E. Danforth, Newark, is Gen. Mgr.

Nicholson, Penn.—The Scranton & Binghamton Traction Co. will soon award contracts for the completion of its line from Nicholson to Montrose. T. C. Dougherty, Scranton, is Ch. Engr.

Phoenixville, Penn.—The Phoenixville, Valley Forge & Stafford Electric Ry. Co. will complete its railway from Valley Forge to Bridgeport and to Stafford during the year. Thomas E. O'Connell, Phoenixville, is Pres., Gen. Mgr. and Pur. Agt.

Burlington, N. C.—The Alamance, Durham & Orange Ry. & Electric Co. has been incorporated to construct an electric railway from Ossipee to Durham, connecting Altamahaw, Glencoe, Carolina, Hopedale, Burlington, Graham, Haw River, Swepsonville, Saxapahaw, River Falls and Chapel Hill. The incorporators are: Junius Harden, John M. Cook, C. Brown Cox and D. M. Teague.

Richmond, Va.—The Virginia Ry. & Power Co. is considering plans for the extension of its Forest Hill line. C. B. Buchanan, Richmond, is Gen. Mgr.

New Iberia, La.—Plans are being considered by the Southwestern Traction & Power Co. for the construction of an electric railway from New Iberia to Jeanerette. F. W. Crosby, New Iberia, is Gen. Mgr.

Cleveland, Ohio—The Cleveland Ry. Co. is considering plans for the extension of its line on East 79th from Kinsman Rd. to the Pennsylvania R.R. tracks. George L. Radcliffe, Cleveland, is Gen. Mgr.

Findlay, Ohio—The Toledo, Bowling Green & Southern Traction Co. is preparing plans for the improvement of its lines in Findlay. C. F. Smith, Findlay, is Gen. Mgr. and Pur. Agt.

Hamilton. Ohio—The Richwood-Hamilton Traction Co. has been incorporated to construct an electric railway from Hamilton to Richwood. Eugene Purtelle is interested.

Sciotoville, Ohio—The Ohio Valley Traction Co. is preparing to start work soon on the extension of its line from Sciotoville to Ironton. W. A. Martin, Portsmouth, is Ch. Engr.

Chicago, Ill.—The Union Ry. & Power Co. is making preliminary arrangements for the construction of an electric railway to connect South Chicago and Harvey, Ill., and Hammond and Gary, Ind. J. W. Paul, 161 Quincy St., Chicago, is Gen. Mgr. Noted May 14, 1914.

Elkhorn, Wis.—Plans are being prepared by the Milwaukee Electric Ry. & Light Co. for the extension of its electric railway from Elkhorn to Delavan. S. B. Way, Milwaukee, is Vice-Pres. and Gen. Mgr.

Keokuk, Iowa—H. W. Knight and Thomas Pettersen, Chicago, Ill., are interested in the construction of an electric interurban railway to connect Keokuk, Iowa, and Jefferson City, Mo. Preliminary work is now being done.

Manhattan, Kan.—The Manhattan City & Interurban Ry. Co. plans to build one mile of new track in Manhattan. Joseph T. West, Manhattan, is Gen. Mgr. and Pur. Agt.

Buffalo, Ark.—G. Tuplegraff, Helena, Ark., is interested in the construction of an electric railway from Buffalo to Yellville.

Monterey, Calif.—Plans are being considered by the Monterey-Pacific Grove Ry. Co. for the extension of its line from Monterey to Fresno. H. F. Jackson, Holbrook Bldg., San Francisco, is Vice-Pres. and Gen. Mgr.

Redwood City, Calif.—E. F. Fitzpatrick, Redwood City, is interested in the construction of an electric railway from the harbor site to the foothills of the city.

Hamilton, Ont.—The Hamilton St. Ry. Co. plans to start work soon on the extension of its Birch Ave. line across Coal Oil Inlet in Hamilton. Edward P. Coleman, Hamilton, is Gen. Mgr.

London, Ont.—Extensive plans are being prepared by the London St. Ry. Co. for the improvement and extension of its lines in London during the year. C. B. King, is Mgr. and Pur. Agt.

Ottawa, Ont.—The Ottawa Electric Ry. Co. is preparing to construct an extension along Bronson St. in Ottawa. W. H. Baldwin, Middle St., Ottawa, is Ch. Engr.

LIGHT, HEAT AND POWER

Milton, N. H.—John B. Giguerre has made application to the Public Service Commission for authority to construct and operate an electric-light and power plant in Milton.

✚Bristol, Conn.—The Bristol & Plainville Tramway Co. has awarded the general contract to FRED T. LEY & CO., INC., Main and State St., Springfield, Mass., for the construction of a gasometer of 250,000 cu.ft. capacity.

Hartford, Conn.—Bids are being received by Ford, Buck & Sheldon, Inc., 60 Prospect St., for the construction of 45x85-ft., brick and reinforced-concrete boiler house and a 20x85-ft. coal pocket.

Albany, N. Y.—The Canadian-American Power Co. has made application to the Public Service Commission, Second District of New York, for permission to issue stock, merge, and commence construction work.

✚Elba, N. Y.—The Elba Food Products Co. has awarded the contract for the construction of a power house and warehouse, the first buildings of its new canning and preserving plant, to JOHN LENNON, SON & CO., Niagara Falls. Noted Feb. 18.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 10:30 a.m., Mar. 22, by the Board of Health, Department of Health, Centre and Walker St., Borough of Manhattan, for the general construction, plumbing and gas fitting and steam heating of two concrete pavilions on the grounds of the Department of Health Riverside Hospital, North Brother Island, Borough of Bronx. Bids will be received at the same time for the electric circuit work of Pavilions Nos. 8 and 9 on the grounds of the Department of Health, North Brother Island. S. S. Goldwater, M. D., is Pres. Bd. of Health.

Wellsville, N. Y.—See item under "Water Supply-Irrigation."

✚Philadelphia, Penn.—The Committee on Property of the Board of Education has awarded the following contracts for a new 33-room school at 56th St. and Kingsessing Ave.: Heating, THOMPSON BROS., $42,176; electrical work, CATES & SHEPARD, $19,820; plumbing, N. CONNELLY, $11,774; ventilating, BOWERS BROS., $3075. Contracts for an 18-room addition to the Sharswood School were awarded to S. FAITH & CO., at $13,245 for heating, and to CATES & SHEPARD at $8794 for electrical work. S. FAITH & CO., at $4079 was awarded the contract for heating plant in a 6-room addition to the Morton School.

Stroudsburg, Penn.—Press reports state that the Frisbie Lumber Co. is considering the construction of an addition to its power plant. The plans include building a power station, installing a new generator and constructing a brick conduit six ft. in diameter and about 250 ft. long.

Baltimore, Md.—It is reported that James Stewart & Co., contractor, Westminster Bldg., Chicago, Ill., is receiving bids for electrical equipment and other machinery, estimated to cost $150,000, for a grain elevator in Baltimore for the Western Maryland Ry.

★Kinston, N. C.—(Official)—Bids will be received until 5 p.m., Apr. 6, by the Mayor and City Council for improvements to the electric-light plant. Fred I. Sutton is Mayor. For further particulars, see advertisement under "Contracts to Be Let."

✚Winnsboro, S. C.—The Board of Public Works has awarded the contract for the installation of a 125-kw. unit in the municipal electric-light plant to the J. B. McCRARY CO., Atlanta, Ga.

Birmingham, Ala.—The Alabama Power Co. announces that it has taken over the public service corporations at Anniston, Decatur, Huntsville, Attalla and Pell City, and will spend about $2,000,000 in making improvements and extensions at these points. Funds for the work will be provided by the Alabama Traction, Light & Power Co., New York, N. Y., the holding company of the Alabama Power Co.

✚New Haven, Ky.—The contract for equipment for the municipal electric-light plant has been awarded to FAIRBANKS, MORSE & CO., 517 West Main St., Louisville, Ky. Charles R. Heizer is Engr.-in-Charge.

Cleveland, Ohio—Bids will be received until noon, Mar. 26, by the Commissioner of Purchases and Supplies, 511 City Hall, for transformers for the municipal light department. F. W. Ballard is Comr. of Light and Heat Dept.

Cleveland, Ohio—Bids will be received until noon, Apr. 1, by the Commissioner of Purchases and Supplies, 511 City Hall, for the construction of the East 79th St. substation for the municipal electric-lighting system. F. W. Ballard, 1443 East Third St., is Comr. of Light and Heat Dept.

Springfield, Ohio—It is reported that the Springfield Light, Heat & Power Co. is having plans prepared for repairs and extensions to its plant estimated to cost $60,000. Weare Parsons is Treas. and Mgr.

Toledo, Ohio—Bids will be received until 10 a.m., Mar. 26, by Charles J. Sanzenbacher, Audr. of Lucas County, for the construction of a new heating, lighting and power plant for the Lucas County Children's Home. Edward Bayer, 1530 Nicholas Bldg., Toledo, is Arch. Noted Oct. 15 and Jan. 7.

Milltown, Ind.—It is reported that the Electric Service Co. plans to install an electric-light plant in Milltown. J. B. Speed & Co., Louisville, Ky., can furnish information.

Lansing, Mich.—It is reported that the Michigan Power Co. contemplates improvements and extensions to its plant to cost about $30,000, of which $10,000 will be spent on the power station and the remainder on the distributing system in Lansing and vicinity. D. R. Thomas is Gen. Mgr.

Janesville, Wis.—The Janesville Electric Co. is having plans prepared for rebuilding its plant which was recently destroyed by fire. D. C. Jackson and William B. Jackson, Harris Trust Bldg., Chicago, Ill., are Engrs.-in-Charge. P. H. Korst is Secy. and Mgr. of the Janesville Electric Co.

✚Rice Lake, Wis.—The Red Cedar Valley Electric Co., Rice Lake, has awarded the contract for one 225-hp. Diesel oil engine, direct-connected to a 160-kw. generator and 12,000-gal. oil tank to the BUSCH-SULZER BROS. DIESEL ENGINE CO., St. Louis, Mo. This equipment will form an auxiliary to the company's hydro-electric plant consisting of two 160-kw. generators.

Wyocena, Wis.—Bids will be received until Mar. 23 by the Clerk of Columbia County, Portage, for electric wiring and fixtures for a new poor house, and for a central heating plant on the farm of the Asylum for Chronic Insane at Wyocena. Allan D. Conover, 36 Tenney Block, Madison, is Arch. Noted Feb. 11.

Chisholm, Minn.—It is reported that the Chisholm Electric Co. has had plans prepared for an addition to its power plant to cost about $50,000. R. M. Heskett, Chisholm, is Secy.-Treas. and Mgr.

Duluth, Minn.—Press reports state that the Barnett & Record Co., contractor, will build a fireproof engine and boiler room at Connor's Point to cost about $4000.

Bucklin, Kan.—Plans are being considered for the enlargement of the municipal electric-light plant. No definite arrangements have been made. C. E. Ward is Supt.

✚Ellsworth, Kan.—It is reported that the People's Electric Light & Power Plant has awarded the contract for remodeling the plant and installing new equipment to JOHN SNOWBALL, Ellsworth, at about $9000. M. G. Beighley is Mgr. and Cont. Agt.

Madison, S. D.—(Official)—Bids will be received until 8 p.m., Mar. 29, by the City Commissioners for electrical equipment for improving the municipal power plant. It will include one engine of about 350-hp., either crude oil or producer gas, generator, exciter, etc. George H. Waskey is Mayor. William Rae is City Audr. Noted Jan. 7 and 28.

Malvern, Ark.—It is reported that the Citizens' Light Co., recently organized with a capital stock of $20,000, will apply for a franchise to equip and operate a power plant in Malvern. R. S. Brooks and Thomas Edwards are interested.

Marshall, Tex.—It is reported that the Marshall Electric Co. will build a transmission line from Marshall to Jefferson, a distance of 14 miles. C. H. Nandell is Gen. Supt.

Ozona, Tex.—The Ozona Improvement Co. is making arrangements to rebuild its plant, discarding its present equipment entirely. The new equipment is estimated to cost $4500, and will include two 25-hp. Fairbanks-Morse oil engines, generators and switchboard. Frank Friend is Mgr.

Seguin, Tex.—See item under "Water Supply-Irrigation."

Bartlesville, Okla.—The Bartlesville Interurban Ry. Co. is considerihg plans for enlarging its power plant at a cost of about $5000. An addition to the present building will be constructed and a new condenser installed.

Hugo, Okla.—The Hugo Ice & Light Co. plans to install a new turbine and condenser and some other equipment in its plant. J. W. Dawley is Vice Pres. and Gen. Mgr.

Brawley, Calif.—The Holton Power Co., Holtville and El Centro, is having plans prepared for the construction of a new substation at Brawley. C. E. Paris, El Centro, is Gen. Mgr.

Springville, Calif.—The San Joaquin Light & Power Corporation, Fresno, plans to construct a canal from a point on the Camp Nelson branch of the Tule River, nine miles above the power house. There will be two miles of tunneling, the longest of which will be 900 ft. A. G. Wishon, Fresno, is Gen. Mgr.

London, Ont.—It is reported that the City Council will purchase new hydro-electric equipment, estimated to cost $62,000. No bids will be asked. H. J. Glaubitz is Gen. Mgr.

Niagara Falls, Ont.—It is reported that the Canadian Niagara Power Co. will spend about $3,000,000 in the construction of a concrete dam and the installation of turbines and generators at Niagara Falls. L. E. Imlay, Niagara Falls, is Supt.

BRIDGES

✚Hartford, Conn.—The State Highway Commissioner has awarded the contract for the construction of a bridge in Stonington Township to C. W. BLAKESLEE & SONS, New Haven, at about $6315.

South Manchester, Conn.—It is reported that the town plans to build a reinforced-concrete bridge at Bissell St. Erwin Brewer is Supt. of Sts.

Elma, N. Y.—Bids will be received until 2:30 p.m., Mar. 20, by the Town Council for the construction of a reinforced-concrete bridge. Nathaniel Hucker, Jr., Rice Rd., Elma Center, N. Y., is Town Clk. George P. Diehl, 575 Ellicott Sq., Buffalo, is Engr.

Greenwich, N. Y.—(Official)—We are advised by the Concrete-Steel Engineering Co., Park Row Bldg., New York, that this company has been retained by the towns of Greenwich and Easton to prepare plans for three concrete bridges over the Battenkill: one each at Greenwich, Clarks Mills and Middle Falls. At a special town meeting Feb. 23, the town of Greenwich voted in favor of these bridges, but the town of Easton voted against their construction. The present structures at these points have been condemned. Noted Feb. 18.

★Camden, N. J.—(Official)—Bids will be received until 11 a.m., Apr. 12, by the Board of Chosen Freeholders of Camden County for the construction of two reinforced-concrete arches on Kings Highway. Fred W. Gercke is Chn. Bridge Com. J. J. Albertson is County Engr. See advertisement under "Contracts To Be Let."

✚Camden, N. J.—The Board of Chosen Freeholders of Camden County has awarded the following bridge contracts: Ogden's Branch and Lebanon Branch Bridges to the GROTON BRIDGE CO., Trenton, at $2125 and $2134 respectively; Scotland Branch Bridge, BRIDGETON CONSTRUCTION CO., Bridgeton, $1280; Almshouse Road Bridge, WHITAKER & DIEHL, Harrisburg, Penn., $2928; culvert at Wood's Branch, E. P. HENRY, Woodbury, $1050.

Lambertville, N. J.—The City Council and the Board of Chosen Freeholders of Hunterdon County, Flemington, are considering the construction of a new bridge over Swan Creek on South Union St., Lambertville.

New Brunswick, N. J.—It is reported that the Board of Chosen Freeholders of Middlesex County has applied to the War Department for permission to build a new bridge at the causeway, South River. Alvin B. Fox, Perth Amboy, is County Engr. Noted Dec. 17.

Somerville, N. J.—(Official)—Bids will be received until 10 a.m., Apr. 2, by the Board of Chosen Freeholders of Somerset County for the construction of five bridges in the county. J. Doughty, Jr., is County Engr. Louis E. Opie is Dir. Bd. of Chosen Freeholders.

Hollidaysburg, Penn.—Press reports state that the Commissioners of Blair County will advertise about Apr. 1 for the construction of eight concrete bridges in the county. The largest will be a 208-ft. structure over the Juniata River below Tyrone; one bridge will be over Van Scoyoc's Run, Snyder Township, one over Plum Creek, Taylor Township, one in Greenfield Township, two near Duncansville, and two over Burgoon's Run, Logan Township.

Hiltons, Va.—(Official)—Bids will be received until 11 a.m., Mar. 22, by the Clerk of the Circuit Court of Scott County, Gate City, for the construction of a bridge over Cove Creek about nine miles from Hiltons. G. P. Coleman, Richmond, is State Highway Comr.

Petersburg, Va.—It is reported that plans have been completed by R. D. Budd, City Engr., for a $500,000 bridge over the Appomattox River, and the selection of a site for its location is now under consideration. It will be of reinforced concrete. Noted Aug. 6, 1914.

Durham, N. C.—The Board of Commissioners of Durham County plans to build four steel bridges at an estimated cost of $5000 each. O. W. Childs is Engr.

+Wilmington, N. C.—It is reported that contracts for the construction of a bridge at Hilton have been awarded to the VAUGHN CONSTRUCTION CO., Shawsville, Va., for the substructure, and the VIRGINIA BRIDGE & IRON WORKS, Roanoke, Va., for the superstructure. The total cost will be about $60,000.

+Tampa, Fla.—The Board of Commissioners of Hillsboro County has awarded the contract for the construction of concrete culverts and bridges in connection with brick road pavement, to the KEYNTON CONSTRUCTION CO., at $11,686.

Clinton, Tenn.—Bids will be received until Mar. 25 by the Bridge Committee of Anderson County for the construction of three bridges over the Clinch River, one each at Clinton, Moores Ferry and Edgemoor. They will be of reinforced-concrete or steel on concrete piers and abutments. The estimated cost is $20,000. C. J. Sawyer is Chn. of Bridge Com. Noted Jan. 21 and Feb. 18.

Leitchfield, Ky.—Bids will be received until Apr. 27 by Edward Butler, Caneyville, Ky., Road Engr. of Grayson County, for the construction of an 85-ft. bridge over Bear Creek, about 12 miles from Leitchfield.

Bryan, Ohio—Bids will be received until 1 p.m., Apr. 13, by C. R. Lowe, Audr. of Williams County, for the construction of a number of bridges.

Cleveland, Ohio—(Official)—Bids will be received until 10 a.m., Apr. 5, by the Board of Commissioners of Cuyahoga County, for the construction of a concrete bridge, Report No. 3490. E. G. Krause is Clk. of County Comrs.

Columbus, Ohio—(Official)—Bids will be received until noon, Apr. 7, by the Board of Commissioners of Franklin County for the construction of a reinforced-concrete arch over Alum Creek on the Schrock Rd., Blendon Township, Engineer's Estimate No. 173. John Scott is Clk. of the Bd.

Dayton, Ohio—Bids will be received until 2 p.m., Apr. 2, by James R. Marker, State Highway Comr., Columbus, for bridges and culverts on the Dayton-Troy Rd., Harrison Township, Montgomery County.

Delaware, Ohio—(Official) — Bids will be received until noon, Mar. 30, by W. V. Aldrich, Audr. of Delaware County, for the following bridge construction; Stratford Bridge, Delaware Township; Hoskins Bridge, Radnor and Thompson Townships; Main Bridge, Troy Township, and the Central Ave. Bridge, City of Delaware.

Eaton, Ohio—(Official)—Bids will be received until 1 p.m., Mar. 31, by the Board of Commissioners of Preble County for the construction of a three-span concrete arch over Twin Creek on Salem Rd., Harrison Township, and for a concrete arch across Paint Creek on the Dillman Rd., Somers Township. G. W. Rehfuss is Audr. Otha Hecathorn is Engr.

Elyria, Ohio—The Board of Commissioners of Lorain County has instructed J. M. Powell, Bridge Engr., to prepare plans for the construction of two steel bridges on stone or concrete abutments. One will be an 84-ft. span, in Wellington Township, and the other a 60-ft. span, in Black River Township.

+Lancaster, Ohio—(Official)—The Board of Commissioners of Fairfield has awarded the contract for the construction of the superstructures of two county bridges to E. M. SCULLY, 2312 North High St., Columbus. J. R. Schopp is County Engr. Noted Feb. 25.

Marion, Ohio—Bids will be received until noon, Apr. 2, by V. P. Garfield, Clk. Bd. of Comrs. of Marion County, for the construction of a bridge over the Whetstone River, Richland Township. The approximate cost will be $8000.

Poast Town, Ohio—Bids for the construction of a 142-ft. steel superstructure and repairs to the abutments of a bridge at Poast Town were received by the Commissioners of Butler County, Hamilton, as follows: Central States Bridge Co., Indianapolis, Ind., $5439; Vincennes Bridge Co., Vincennes, Ind., $5234; John H. Hiatt, Hamilton, $6333; Oregonia Bridge Co., Lebanon, $8998, $6300 and $6287 for different plans; Burk Construction Co., New Castle, Ind., $5122 and $5411; Capitol Construction Co., $4500 for superstructure only; Bellefontaine Bridge & Steel Co., Bellefontaine, $5676. Noted Feb. 11 and 26.

+Tiffin, Ohio — The Board of Commissioners of Seneca County has awarded the contract for the construction of 18 small bridges to the NOBLE CONSTRUCTION CO., Caldwell, Ohio. The contract for five bridges was awarded to the UNIVERSAL CONSTRUCTION CO. Noted Feb. 25.

Youngstown, Ohio—A recent court decision has ruled that the proposed viaduct at East Federal St. shall be built according to plans prepared by the City Engineer. The estimated cost is $500,000, of which the city will pay 35%, and the railway companies using the bridge the remainder. F. M. Lillie is City Engr.

Boonville, Ind.—The County Council of Warrick County has appropriated a fund of $7500 for the construction of three new county bridges.

Goshen, Ind.—It is reported that bids will be asked in a few weeks by the Board of Commissioners of Elkhart County for the construction of a steel or concrete bridge on the Goshen and Elkhart Rd.

Indianapolis, Ind.—Bids will be received until 10 a.m., Mar. 22, by the Board of Commissioners of Marion County for the construction of a bridge over Little Eagle Creek, on the Crawfordsville Rd., Wayne Township. W. T. Patten is Audr. Paul Julian is County Surv.

Pendleton, Ind.—It is reported that the Board of Commissioners of Madison County, Anderson, will ask bids about Apr. 1 for the construction of a four-span reinforced-concrete I-beam bridge over Fall Creek at Pendleton. It will be 120 ft. long. W. O. McVaugh is County Surv. Ethan Flavihan is Audr.

Detroit, Mich.—The citizens will be asked to vote, at the spring election, on the question of a bond issue for the construction of a bridge between the City of Detroit and Belle Isle. The estimated cost is $2,000,000.

+Grand Rapids, Wis.—The Highway Commissioner of Wood County has awarded the contract for steel bridges on the county highways to the WORDEN-ALLEN CO., Milwaukee, Wis.

+Davenport, Iowa—The Board of Supervisors of Scott County has awarded contracts for materials for county bridge construction during the coming year to: INTERSTATE MATERIAL CO., for cement at $1.54 per bbl.; CLINTON BRIDGE CO., for steel and sheet metal pipes; FT. DODGE CULVERT CO., for corrugated iron pipe; WHEELER LUMBER CO., for all lumber.

Moorhead, Minn.—The Commissioners of Clay County and the State Highway Commission have decided to build a reinforced-concrete bridge on the State Rd. between Dilworth and Glyndon some time this year. The estimated cost is $10,000.

+Owatonna, Minn.—(Official)—The Commissioners of Steele County have awarded the contract for the construction of a reinforced-concrete bridge in Summit Township to the IDEAL CEMENT TILE CO., Owatonna. M. J. Parcher is County Audr. Noted Mar. 4.

Palisade, Minn.—Several townships of Aitkin County have petitioned the County Commissioners, Aitkin, to build a bridge over the Mississippi River at Palisade. The estimated cost of a steel bridge is $11,000.

+Winona, Minn.—(Official)—The City Council has awarded the contract for the construction of an approach to the High Wagon Bridge over the Mississippi River to O'HAGAN & LAKE, Chicago, Ill., at $96,400. It will be of concrete with open type railing. Alternative bids were also received for a steel approach, or one of concrete with panel railing. The lowest bid for a steel structure was that of the Western Construction Co., La Crosse, Wis., at $78,650, while O'Hagan & Lake bid $95,900 for an approach with panel railing. Noted Dec. 17 and Feb. 18.

Worthington, Minn.—(Official)—Bids will be received until 2 p.m., Mar. 22, by G. Swanberg, Audr. of Nobles County, for the construction of State Bridges Nos. 1601, 1645, 1646, 1647 and 1648.

Concordia, Kan.—(Official)—Bids will be received until noon, Mar. 24, by the County Clerk of Cloud County for the following bridge construction, all to be of reinforced-concrete: Chavey Bridge, Aurora Township; Hinman Bridge over Wolf Creek, Buffalo Township; Shrader Bridge over Oak Creek, Lincoln Township; Murphy Bridge, Shirley Township; Teasley Bridge, Solomon Township.

Lawrence, Kan.—It is reported that the Board of Commissioners of Douglas County has engaged Hedrick & Cochrane, Kansas City, Mo., as consulting engineer for the proposed bridge over the Kansas River. The structure will be of reinforced concrete.

Newton, Kan.—Bids will be received until noon, Mar. 22, by the County Clerk of Harvey County for the construction of two reinforced-concrete bridges; the Peter Reiger Bridge over Turkey Creek, Alta Township, and the Kisiwa Bridge over Kisiwa Creek, Lakin Township.

Kearney, Neb.—Bids will be received until noon, Mar. 26, by J. H. Dean, Clk. of Buffalo County, for bridge construction and repair during 1915.

+Nelson, Neb.—(Official)—The Commissioners of Nuckolls County have awarded the contract for the construction of the Superior State Aid Bridge over the Republican River to WARD & WEIGHTON, Sioux City, Iowa, at $13,000. Other bidders were: Leonard, Wilson Engineering Co., Lincoln, $17,980; Midland Bridge Co., Kansas City, Mo., $21,517; Lincoln Construction Co., Lincoln, $16,890; Elkhorn Construction Co., Fremont, $21,340; N. M. Stark & Co., Des Moines, Iowa, $19,130; Omaha Structural Steel Works, Omaha, $21,300; Standard Bridge Co., Omaha, $19,800. Noted Feb. 11.

La Plata, Mo.—It is reported that the Commissioners of Macon County, Macon, have decided to construct a 100-ft. steel bridge, 20-ft. roadway, over the tracks of the Atchison, Topeka & Santa Fé Ry. at this point.

+Oklahoma, Okla.—(Official)—The Board of County Commissioners has awarded the contract for the construction of two small concrete bridges to the OKLAHOMA CONCRETE BRIDGE CO., Patterson Bldg., Oklahoma. H. C. Adams is County Engr. Noted Mar. 4.

San Marcial, N. M.—Bids will be received until Apr. 5 by the Board of Commissioners of Socorro County, Socorro, for the construction of a steel bridge over the Rio Grande River at San Marcial. It will have five pony truss spans and a substructure of 60-ft. creosoted piles. The estimated cost is $15,000. James A. French, Santa Fé, is State Engr. Noted Oct. 29.

+Mt. Vernon, Wash.—The Board of Commissioners of Skagit County has awarded the contract for the construction of a bridge over Swinomish Slough connecting the town of La Conner with the Swinomish Indian reservation to the ILLINOIS STEEL BRIDGE CO., Chicago, Ill., at about $20,000. Noted Feb. 18.

Olympia, Wash.—The Board of Commissioners of Thurston County has instructed W. H. Yeager, Jr., County Engr., to prepare plans for the construction of two concrete bridges, one over Scatter Creek and the other over Perry Creek. The estimated cost is $55,000.

+Renton, Wash.—The Board of Commissioners of King County, Seattle, has awarded the contract for the construction of a bridge at Renton Junction to the PACIFIC IRON WORKS, Portland, Ore., at $9744. Noted Feb. 18.

Seattle, Wash.—At the special election held Mar. 2 the citizens voted in favor of issuing bonds for $1,375,000, the proceeds of which will be used for the construction of bridges over Lake Washington Canal. The previous issue of bonds for this purpose was declared invalid by the Supreme Court of Washington. Noted Dec. 3 and 10, 1914; Jan. 7, 21 and 28, 1915.

Tillamook, Ore.—A bond issue of $40,000 has recently been sold, and the proceeds will be used for the construction of a steel bridge across Hoquarton Slough. It is understood that work will be begun this summer.

Colusa, Calif.—Bids will be received until Apr. 6 by the Board of Supervisors of Colusa County for the construction of 37 concrete bridges, ranging from a 6-ft. culvert to a 2600-ft. trestle. J. W. Kaerth is County Engr.

Needles, Calif.—Plans are being prepared by James Sourwine, County Engr. of San Bernardino County, for a bridge across the Colorado River between Needles and Topoc, Ariz., on the Old Trails National Highway. The Federal government has appropriated $25,000 for the bridge, and San Bernardino County and Mohave County, Ariz., will each contribute a like amount. Noted Aug. 13 and Sept. 10, 1914.

WATER SUPPLY—IRRIGATION

Boston, Mass.—Bids will be received until Mar. 19 by the Public Works Department for 22,400 lb. of semi-steel castings for the high-pressure fire service. L. K. Rourke is Comr.

+Boston, Mass.—The contract for 750,000 lb. of c.-i. specials for the Water Department has been awarded to the MECHANICS IRON FOUNDRY CO., at $0.0142 and $0.0249 per lb. Noted Feb. 25.

+★Fitchburg, Mass.—(Official)—The contract has been awarded to E. W. FOLEY CONSTRUCTION CO., 71 Wall St., New York, N. Y., at $99,105, for constructing the Ashby reservoir. Noted Jan. 21 and Mar. 11.

+Holyoke, Mass.—The contract for water pipe has been awarded to the DONALDSON IRON CO., Emaus, Penn., at $21.84 per ton.

Middleboro, Mass.—Bids will be received until Apr. 1 for constructing a 500,000-gal. tank on a concrete tower. The estimated cost is $25,000. G. A. Sampson, 14 Beacon St., Boston, is Engr. Noted Feb. 18.

+★Salem, Mass.—(Official)—Bids were received Mar. 10 by the Salem and Beverly Water-Supply Board for constructing an additional water-supply from the Ipswich River as follows: F. T. LEY & CO., INC., Springfield, at $50,959 (awarded contract); McHarg-Barton Co., New York, N. Y., $47,530; Thomas Fitzgibbon Co., Beverly, $54,642; Bay State Dredging Co., Boston, $57,332; W. B. Mullen, Boston, $64,598; Coleman Bros., Boston, $65,729; Middlesex Contracting Co., Boston, $65,992; M. Russo & Son, Boston, $66,085; T. A. Scott & Co., Inc., New London, Conn., $74,279; L. B. Cleveland, Watertown, N. Y., $74,337; Bonfidio Perini, Ashland, $77,055; Holbrook-Cabot & Rollins, Boston, $78,304; Eastover Construction Co., Utica, N. Y., $79,630; John J. Hart, New York, N. Y., $84,163; Bruno & Petitt, Boston, $88,730; W. L. Miller & J. J. Welch & Co., Salem, $96,232 and Canal Construction Co., New York, N. Y., $104,247. Hazen, Whipple & Fuller, New York, N. Y., is Consult. Engr. Noted Feb. 18.

Sterling, Mass.—At a recent election the citizens voted in favor of petitioning the Legislature for authority to issue bonds, the proceeds of which will be used for the construction of a water system. Noted June 25.

Manchester, Conn.—Plans are being prepared for the extension of the water system for the South Manchester Water Co.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received Mar. 11 by the Department of Water, Gas and Electricity for laying a 12-in. water main across the East River and in 140th St. to North Brother Island as follows: H. E. Fox Construction Co., 81 East 125th St., at $15,608 (low bidder); John Cornwall, Jr., $18,746; Merritt & Chapman, $29,333; Hanover Contracting Co., $16,708; F. N. Lewis, $19,441 and New York Submarine Co., $26,410. Noted Mar. 4.

New York, N. Y.—(Borough of the Bronx)—(Official)—Bids were received Mar. 8 by the Department of Water, Gas and Electricity for laying water mains in Southern Blvd., Borough of the Bronx as follows: L. D. Gregory, 212 West 138th St., at $19,680 (low bidder); Brady Oltarsch, $21,035; Hanover Contracting Co., $23,411; Beaver Engineering Co., $24,155; Soraci Contracting Co., $23,891; Melrose Construction Co., $20,847; Burnside Construction Co., $23,680; James O'Leary, $24,809; Knight & DiMicco, $22,247. Noted Mar. 4.

New York, N. Y.—(Boroughs of Manhattan and Bronx)—(Official)—Bids will be received until 2 p.m., Mar. 25, by William Williams, Comr. of Water-Supply, Gas and Electricity for c.-i. pipe, specials, valve box castings, valves and double nozzle fire hydrants.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until 2 p.m., Mar. 25, by William Williams for installing fire hydrants in various streets.

Syracuse, N. Y.—(Official)—Bids will be received until 1:30 p.m., Mar. 22, by R. D. Roney, Clk. Bd. of Contract and Supply, for c.-i. water pipe for the water department. M. B. Palmer is Engr. of Water-Supply. Noted Dec. 17.

Watervliet, N. Y.—The Baxter bill, authorizing a bond issue for $625,000 for the improvement of the water system, has been passed by the Assembly. Noted Mar. 11.

Potsdam, N. Y.—An appropriation of $1500 is contemplated to investigate the feasibility of a spring water supply. The supply is now taken from the Raquette River.

Wellsville, N. Y.—The village has purchased the Wellsville Water & Light Co. Charles C. Hopkins, Cutler Bldg., Rochester, has prepared plans for the improvement of the water system at an estimated cost of $100,000, and H. B. Sweet, Utica, has prepared plans for the remodeling of the electric-light plant.

Bordentown, N. J.—The Board of City Commissioners plans to install water meters throughout the city.

Burlington, N. J.—The Common Council has instructed Henry S. Haines, City Engr., to prepare plans for the construction of a new pumping station at the water works. Noted Nov. 5.

+Perth Amboy, N. J.—The contract has been awarded by the Board of Water Commissioners to R. J. GALVIN, Perth Amboy, for steel and galvanized pipe for 16 new wells at the Runyon watershed.

Allentown, Penn.—Bids will soon be received for a 5,000,000-gal. electric pump for the water department. R. J. Wheeler is Supt.

Allentown, Penn.—The city will soon be in the market for a chloride gas machine for the purification of the water. R. J. Wheeler is Supt.

Erie, Penn.—According to press reports plans are being prepared for the construction of a new reservoir to cost $200,000. Edward W. Humphries is Water-Wks. Supt.

Lancaster, Penn.—The citizens contemplate issuing bonds for $145,000, the proceeds of which will be used for the improvement of the water system. Noted Feb. 18.

Punxsutawney, Penn.—Plans have been prepared by Thomas Peelor, Indiana, Penn., for the construction of a water system. Noted July 23.

Reading, Penn.—Bids will soon be received by the Board of County Commissioners for constructing a water system at the insane asylum.

Slatington, Penn.—The Borough Council plans to increase the capacity of the reservoir.

Hagerstown, Md.—The Washington County Water Co., according to press reports, plans to build a 400,000,000-gal. reservoir on South Mountain. The estimated cost is $300,000.

Claremont, Va.—The Claremont Water-Works Co., recently organized with a capital of $10,000 by D. Stone and H. Costenbader, will install a water system.

★Lynchburg, Va.—(Official)—Bids will be received by the Council Committee on Water until noon, Apr. 6, for installing an emergency pumping station and booster pump. For details see advertisement under "Contracts To Be Let."

★Richmond, Va.—(Official)—Bids will be received until noon, Mar. 26, by E. E. Davis, Supt. of Water-Wks., for c.-i. pipe, meter boxes, meters, fire hydrants, etc., for the water department. For details see advertisement under "Contracts To Be Let."

★Richmond, Va.—(Official)—Bids will be received at the office of the Superintendent, City Water Works, until noon, Mar. 26, for furnishing 800 tons of aluminum sulphate for water clarification. For details see advertisement under "Contracts To Be Let."

Williamsburg, Va.—The city contemplates issuing $25,000 in bonds, the proceeds of which will be used for the construction of water and sewer systems.

Bridgeport, W. Va.—Bids will be received about Apr. 1 for laying water mains and constructing a 50,000-gal. tank. Homer Bros. is Engr.-in-Charge. The estimated cost is $23,000. Noted Feb. 4.

Shepherdstown, W. Va.—Randolph Stalnaker and others, according to press reports, have been granted a franchise to construct a water system. Noted Jan. 28.

Warrenton, N. C.—Gilbert C. White, Charlotte, has submitted two plans to the City Commissioners for the construction of water and sewer systems. The estimated cost is $50,000.

Manning, S. C.—Plans are being prepared for the construction of water and sewer systems, the estimated cost of which is $40,000. Noted Nov. 26.

Orangeburg, S. C.—The installation of a water system and electric-light plant is under consideration. The estimated cost is $30,000.

Winnsboro, S. C.—An election will be held Mar. 29 to vote on the question of issuing $80,000 in bonds, the proceeds of which will be used for the construction of water and sewer systems. Noted Aug. 20.

Alma, Ga.—Bonds for $15,000, the proceeds of which will be used for the construction of a water system, have been voted. Noted Mar. 4.

Jefferson, Ga.—Bids will be received until Apr. 19 by Homer Hancock, City Clk., for constructing water and sewer systems. Solomon-Norcross Co., Atlanta, is Engr.

Largo, Fla.—Bonds for $20,000 have been voted by the citizens. The proceeds will be used for the construction of a water system. Noted Nov. 26.

Ocala, Fla.—Bids will soon be received for improvements to the water system. Plans have been prepared by Twombly & Henney, 55 Liberty St., New York, N. Y. The estimated cost is $50,000. H. C. Sistrunk is City Clk. Noted Oct. 15.

Elba, Ala.—The citizens at a recent election voted to issue $5500 in bonds, the proceeds of which will be used for the extension of the water system. W. M. Tucker is Mayor. Noted Sept. 3.

+Notasulga, Ala.—(Official)—Bids were received Mar. 2 for constructing a water system as follows: Tuscaloosa Construction & Supply Co., Tuscaloosa, $11,293; Gadsden Concrete Co., Gadsden, $14,023; Steel Construction Co., Birmingham, $10,584; B. F. Roberts, Macon, Ga., $10,474 and Sullivan, Long & Hagerty, Bessemer, $11,086. Noted Feb. 25.

De Ridder, La.—Bids will be received until Apr. 27 by P. C. Kay, City Clk., for the purchase of bonds for $60,000, the proceeds of which will be used for the purchase and improvement of the water system and for the construction of a sewer system. Noted May 4.

Louisville, Ky.—The Louisville Water Co. plans to build a new pumping station at an estimated cost of $535,000 and to lay water mains, at an estimated cost of $250,000. A special wash-water pump will be installed at the filtration plant, the estimated cost of which is $10,000. James C. Wilson is Ch. Engr.

Akron, Ohio—Bonds for $600,000 have been voted by the citizens, the proceeds of which will be used for completing the water system. The new water works is 85% completed, and it is believed that pure water will be available by July 1.

Barberton, Ohio—Bonds for $17,000 have been voted by the Council. The proceeds will be used for the extension of the water system in North Barberton. Noted Jan. 28.

Bluffton, Ohio—A bond issue for $17,000 has been voted, the proceeds of which will be used for making improvement and extensions to the water system. Noted Nov. 19.

Chardon, Ohio—Plans are being prepared by C. H. Felton, Williamson Bldg., Cleveland, for the construction of a water system for the Chardon Water-Works Co. C. A. Black is Pres. Noted Dec. 17.

Cincinnati, Ohio—J. A. Hiller, Water-Wks. Supt., will soon ask the Council to issue bonds for $125,000, the proceeds of which will be used for the construction of five water tanks on Kennedy Heights.

Cleveland, Ohio—Bids will be received until noon, Mar. 26, by the Commissioner of Purchases and Supplies for steel reinforcing bars for the water department. Specification are on file with Charles F. Schultz, Comr. of the Water Dept.

Cleveland, Ohio—Plans will soon be prepared by Robert Hoffman, City Engr., for the construction of a 75,000,000 gal. filtration plant for the East Side at 49th St. The estimated cost is $1,000,000.

+Cleveland, Ohio—The contract has been awarded to the MASTER & MULLEN CONSTRUCTION CO., Cleveland, at $38,905 for constructing a coagulant house and superstructures for the Division Ave. filtration plant. Noted Feb. 11 and Mar. 11.

Geneva, Ohio—The organization of a company, for the construction of a water system, is under consideration by the citizens. M. C. Goddard is Engr.

Lorain, Ohio—According to press reports bids will be received until Mar. 30 by George N. Damon, City Audr., for the purchase of $45,000 in bonds, the proceeds of which will be used for the construction of a water system. Noted Dec. 31.

Wooster, Ohio—Plans have been prepared by R. H. Hunter, Quimby Bldg., Wooster, and Chester & Fleming, Union Bank Bldg., Pittsburgh, Penn., for the installation of a filtration plant, estimated to cost $140,000. M. Bloomburg is Dir. of Pub. Serv. Noted Dec. 3 and Jan. 28.

Yellow Springs, Ohio—An election will be held in April to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a water system. Thomas A. Donley is Mayor. Noted Feb. 18.

+Youngstown, Ohio—The contract has been awarded to the GAMON WATER CO., Newark, N. J., for 3000 water meters. H. C. Fox is Secy. Dept. of Pub. Wks.

East Chicago, Ind.—The Public Utilities Commission has received an application from the East Chicago & Indiana Harbor Water Co. for permission to issue $32,000 in bonds. Part of the proceeds will be used for the extension of its system.

+Ft. Wayne, Ind.—The contract has been awarded by the Board of Public Works to the UNITED STATES CAST IRON PIPE CO. for 450 tons of c.-i. water pipe, hydrants and valves.

Indianapolis, Ind.—The Public Service Commission has been petitioned by the Indianapolis Water Co. for permission to issue $116,000 in bonds, the proceeds of which will be used for making extensions to the water system.

+Princeton, Ind.—The contract for constructing a filtration plant for the Princeton Water Co. has been awarded to the INTERNATIONAL FILTER CO., Chicago, Ill., at $18,000. Noted Dec. 24.

Rushville, Ind.—C. H. Hurd, Indianapolis, has completed plans for the construction of a 750,000-gal. reservoir. A. H. Mahin is Supt. of Water-Wks.

Highland Park, Mich.—The Council has been asked to appropriate $40,000 to be used for the completion of the water system. William Patterson is Supt. of Water-Wks.

Morrice, Mich.—The construction of a water system is contemplated. The estimated cost is between $7000 and $9000.

Schoolcraft, Mich.—Bids will be received about Apr. 1 by O. A. Fellows, Village Clk., for constructing a water system. The estimated cost is $20,000. Smith & Boulay, Toledo, Ohio, is Engr. Noted Feb. 25.

Sebewaing, Mich.—The Village Council contemplates spending $25,000 for the construction of a water system.

Champaign, Ill.—(Official)—We have been advised that the Champaign & Urbana Water Co. will build a new reservoir and make improvements to the water system. F. C. Amsbary is Supt. Noted Aug. 13.

Christopher, Ill.—Plans have been prepared by L. T. Putnam Co., Browning Bldg., Christopher, for the construction of a water system.

+Cicero, Ill.—The contract has been awarded to CHARLES M. PORTER, 118 North La Salle St., Chicago, by the Board of Local Improvements for laying water mains in various streets. Noted Feb. 18.

East St. Louis, Ill.—According to press reports, the East Side Water Co. plans to construct a new water system. Breckinridge Long, St. Louis, Mo., is Pres. of the company.

Maywood, Ill.—Bids will be received until 8 p.m., Mar. 25, by the Board of Local Improvements for 18,940 ft. of 6-in. and 2650 ft. of 4-in. c.-i. water pipe. Robert E. Williams, 118 North La Salle St., Chicago, is Engr.

Peoria Heights, Ill.—Bids will be received about Apr. 1 for the construction of a water system. C. H. Dunn, Arcade Bldg., Peoria, is Engr. The estimated cost is $35,000. Noted Dec. 24.

Sparta, Ill.—Bonds for $25,000 have been sold, the proceeds of which will be used for construction of a water system. Noted Dec. 3 and 10.

+Stronghurst, Ill.—The contract has been awarded to the CHICAGO BRIDGE & IRON WORKS, Chicago, for erecting a steel tank on a tower. Noted Oct. 29.

Eau Claire, Wis.—The expenditure of $11,000 for the improvement and extension of the water system is contemplated by the city.

Reedsburg, Wis.—Bids will be received until 7:30 p.m., Mar. 22, by William H. Dierken, City Clk., for c.-i. water pipe of 23-lb. per lin.ft.

Sheboygan, Wis.—The construction of a 20-in. water main in Lincoln Ave. from Calumet Rd. to Fifth St. is contemplated.

Wauwatosa, Wis.—Bids will be received until Mar. 13 by A. C. Bingham, City Clk., for drilling an artesian well. The well will be between 1300 and 1600 ft. F. A. Torkelson is City Engr.

Buffalo Center, Iowa—At a recent election the citizens voted in favor of issuing bonds, the proceeds of which will be used for making extensions to the water system. W. H. Collins is Mayor. Noted Dec. 31.

Crawfordsville, Iowa—(Official)—Bids will be received until 8 p.m., Mar. 25, by the Council for constructing a water system. The estimated cost is $8000. R. S. Dix is Clk. Noted Dec. 31.

Lowden, Iowa—An election will be held to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a water system.

Morning Sun, Iowa—(Official)—Bids will be received until 7 p.m., Apr. 5, by W. B. Garvin, Town Clk., for the construction of a water system. The estimated cost is $25,000. Harper & Stiles, Grand Ave. Temple, Kansas City, Mo., is Engr. F. G. Wright is Mayor. Noted July 2.

Cloquet, Minn.—(Official)—All bids received Mar. 2 for constructing a concrete reservoir for the water system have been rejected. J. A. Parks is City Clk. Noted Feb. 25.

Ft. Scott, Kan.—An election will be held in April to vote on the question of issuing bonds, the proceeds of which will be used for the installation of a filtration plant. James A. Burton is Supt. of Water-Wks. Noted Jan. 14.

Fredonia, Kan.—Bids will be received until Mar. 22 by C. B. De Tar, Supt. of Water-Wks., for the construction of a filtration plant and water system, the estimated cost of which is $40,000. Worley & Black, Reliance Bldg., Kansas City, Mo., is Engr. R. A. McGregor is City Clk. Noted Nov. 26.

+Eagle, Neb.—The contract has been awarded to the DES MOINES BRIDGE & IRON CO., Des Moines, Iowa, for constructing a water system. Noted Feb. 4.

Deadwood, S. D.—The city contemplates constructing a water system, the estimated cost of which is $73,000. Frank S. Peck is City Engr.

Belfield, N. D.—The citizens contemplate issuing bonds for $20,000, the proceeds of which will be used for the construction of a water system.

Powell, Wyo.—Bids will be received until 7 p.m., Apr. 5, by W. A. Deming, Town Clk., for the purchase of $61,000 in bonds, the proceeds of which will be used for the construction of a water system. Noted Nov. 5.

Chouteau, Mont.—Bonds for $42,000 will be sold at auction sale 8 p.m., Apr. 5, by A. L. Powers, Town Clk. The proceeds will be used for the construction of a water system. Noted July 9, 1914.

Clydepark, Mont.—Charles T. Sacket, Livingston, has been retained by the Council to prepare plans for the construction of a water system. The estimated cost is $20,000. Noted Oct. 22 and Nov. 26.

Clarence, Mo.—An election will be held Apr. 1 to vote on the question of issuing $27,000 in bonds, the proceeds of which will be used for the construction of a water system. Henrici, Kent & Lowry, Reserve Bank Bldg., Kansas City, is Engr. Noted July 30.

Jefferson City, Mo.—(Official)—Chester & Fleming, Pittsburgh, Penn., is preparing plans for rebuilding one of the old settling basins for the Jefferson City Water-Works Co.

St. Louis, Mo.—At a recent meeting the Board of Standardization voted in favor of purchasing eight miles of pipe for the construction of a pipe line to the new Industrial School at Ft. Bellefontaine. The estimated cost is $40,000.

+St. Louis, Mo.—(Official)—Bids were received Jan. 22 for a 20,000,000-gal. steam turbine-driven centrifugal pump for the water-works as follows: CAMERON STEAM PUMP WORKS, at $35,300 (awarded contract); Allis-Chalmers Mfg. Co., $52,440; Dravo Doyle Co., $44,750 and H. R. Worthington Co., $40,250. Noted Jan. 21.

Leslie, Ark.—Surveys are being made by the J. B. McCrary Co., Atlanta, Ga., for the construction of water and sewer systems. Noted Mar. 4.

Brenham, Tex.—Bonds for $30,000 have been sold. The proceeds will be used for the installation of water and sewer systems. Noted Mar. 11.

Ennis, Tex.—Bids will soon be received by the City Council for making extensions to the water system. Noted Feb. 4.

Hillsboro, Tex.—An election will be held Apr. 6 to vote on the question of issuing $5000 in bonds, the proceeds of which will be used for the improvement of the water system.

Seguin, Tex.—Bonds for $20,000 have been voted, the proceeds of which will be used for the improvement of the water system and electric-light plant.

Vinton, Tex.—The Vinton Ice, Light & Water Co., according to press reports, has been organized with a capital of $20,000. The company plans to build a water system.

Wilburton, Okla.—(Official)—A special election will be held Apr. 6 to vote on the question of isuing $100,000 in bonds. The proceeds will be used for the construction of a water system. The Benham Engineering Co., Oklahoma City, is Engr. Noted Dec. 17 and 31.

Salt Lake City, Utah—Bids will soon be received for the construction of a dam at Twin Lakes. The estimated cost is $72,000. Sylvester Q. Cannon is City Engr. Noted Oct. 22.

Raymond, Wash.—The citizens, at a recent election, voted in favor of issuing $117,500 in bonds, the proceeds of which will be used for the purchase and improvement of the water system of the Raymond Water Co. Noted Dec. 24 and Jan. 28.

Roslyn, Wash.—An election will be held Apr. 13 to vote on the question of issuing $28,000 in bonds. The proceeds will be used for the improvement of the water system. George T. Wake is City Clk. Noted Feb. 4.

Seattle, Wash.—Bids will be received until Apr. 2 by the Board of Public Works for two pumps and 2-phase, 60-cycle, 200-hp. motors for pumping stations at West Seattle and Interbay.

Fairview, Ore.—An election will be held in April to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a water system. J. N. & R. E. Koon, Bd. of Trade Bldg., Portland, is Engr. The estimated cost is $12,000. Noted Mar. 11.

Oregon City, Ore.—At an election held Mar. 3 the citizens of West Linn and Oregon City voted in favor of issuing $375,000 in bonds, the proceeds of which will be used for the construction of a 25-mile pipe line.

✚Portland, Ore.—(Official)—Contracts have been awarded to the UNITED STATES CAST IRON PIPE CO., at $125,290 for c.-i. pipe and to SMITH & WATSON, Portland, at $2750 for specials. J. R. Wood is Pur. Agt. Noted Feb. 11.

Warrenton, Ore.—Bids will be received until Apr. 12 by the City Water Commission for the purchase of $150,000 in bonds, the proceeds of which will be used for the construction of a water system. Noted Dec. 3 and 24.

Dorris, Calif.—Work will soon be started on the construction of the Griffith lateral canals of the Klamath Falls project. The estimated cost is $77,000. J. G. Camp is Mgr.

Aylmer, Que.—Bids will soon be received, according to press reports, for constructing an intake pipe. The estimated cost is $12,000. H. Leblanc is Engr. Noted Feb. 4.

Toronto, Ont.—The Board of Control, at a recent election, defeated the question of issuing bonds for $6,000,000 for the construction of a duplicate water system at East Toronto. Noted Mar. 11.

SEWERS

★Fitchburg, Mass.—(Official)—Bids will be received until 3 p.m., Apr. 7, by the Board of Sewage Disposal Commissioners for constructing Section 7 of the main intercepting sewer. David A. Hartwell is Ch. Engr.

Wellesley, Mass.—At an election held Mar. 8 the citizens voted in favor of issuing $150,000 in bonds, the proceeds of which will be used to commence the construction of a sewer system which when completed will cost $600,000.

✚★Warren, R. I.—The contract has been awarded by the Sewer Commissioners to F. A. GAMMINO, Providence, at $32,000, for laying 15,000 ft. of 18-in. sewers, constructing sedimentation tanks and for two small collection wells. Noted Dec. 3 and Mar. 4.

Brockport, N. Y.—The citizens have retained Charles C. Hopkins, Cutler Bldg., Rochester, to prepare plans for the improvement of the sewage disposal plant. The estimated cost is $25,000. An election will be held in April to vote bonds.

Dunkirk, N. Y.—(Official)—W. H. Shelton, City Engr., advises us that the proposed sewer work will probably not be undertaken this year. Noted Mar. 11.

Elmira, N. Y.—The citizens contemplate constructing about 8000 ft. of 10- and 12-in. tile sewers. T. A. Brown is City Engr.

✚New York, N. Y.—(Borough of the Bronx)—The contract has been awarded to J. L. SIGETTO, at $349,221, for constructing a sewer in Pennyfield Ave. Noted Jan. 28.

New York, N. Y.—(Borough of the Bronx)—(Official)—All bids received Feb. 2 for constructing a sewer in Tyndall Ave. have been rejected. Noted Jan. 28.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 3 p.m., Mar. 25, by the Park Board, Municipal Bldg., Borough of Manhattan, for constructing sanitary sewers and pumping stations in Prospect Park.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Mar. 24, by L. H. Pounds, Borough Pres., for construction a sewer in East 27th and 15th St.

Oswego, N. Y.—At an election to be held Mar. 24 the citizens will vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for the improvement of the sewer system. Thomas H. McGinnis is City Clk.

Caldwell, N. J.—The Council contemplates spending $10,000 for the extension of the sewer system.

Maywood, N. J.—An election will be held to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a sewer system and sewage disposal plant. Alexander Potter, 50 Church St., New York, N. Y., is Engr.

Paterson, N. J.—Bids will be received about Apr. 6 for constructing storm water sewers. H. J. Harder is City Engr.

✚Princeton, N. J.—The contract has been awarded by the Council to ANTONIO CELENTANO, Trenton, for constructing the trunk line sewer from Ewing St. to the northeast sewer field. Noted Feb. 25.

Summit, N. J.—Preliminary plans have been submitted by Alexander Potter, 50 Church St., New York, N. Y., for the construction of a sewage-disposal plant. The estimated cost is $30,000. Noted Dec. 24.

Trenton, N. J.—The Board of City Commissioners has adopted ordinances providing for the installation of sewers in Brant Ave., Kuhn Alley and Nitz Alley. Frank Thompson is City Clk.

Harrisburg, Penn.—Plans have been prepared for the construction of sewers in Ruddy, De Lancey and Spruce St. The estimated cost is $8000. M. B. Cowden is City Engr.

Parkesburg, Penn.—(Official)—Bids were received Mar. 8 for (A) constructing a sewer system and (B) for constructing a sewage treatment plant as follows: George C. Souders, Lancaster, (A) $27,781, (B) $7715; Pollock & Lewis, Downingtown, (A) $25,156, (B) $6489; G. W. Ensign, Inc., Harrisburg, (A) $29,207, (B) $8588; Richardson & Williams, Baltimore, Md., (A) $34,477; Field Barker & Underwood, Philadelphia, (A) $27,106, (B) $9057; Matthew, Ott & Co., Pittsburgh, (A) $28,033; M. & T. E. Farrell, West Chester, (A) $26,000, (B) $9979; Rundle & Behm, Reading, (A) $22,933, (B) $6345; Slack & Slack Co., Baltimore, Md., (A) $22,756, (B) $8449; John C. Schrade Inc., Brooklyn, N. Y., (A) $33,691, (B) $11,153; Suburban Engineering Co., New York, N. Y., (B) $9765 and Kelly McFeeley Co., Camden, N. J., (A) $32,988, (B) $13,256. Noted Dec. 17, Jan. 7 and Mar. 4.

Pittsburgh, Penn.—The city contemplates constructing about 50,000 ft. of sewers, 186 manholes and 150 catch basins. Robert Swan is City Engr.

Warren, Penn.—Plans are being prepared by Alson Rogers, City Engr., for the construction of one mile of 24- to 30-in. sewers.

West Pittston, Penn.—(Pittston post office)—The citizens contemplate constructing sewers in the Ninth district.

★York, Penn.—(Official)—Bids will be received until 1:30 p.m., Apr. 2, by C. P. Shreiner, City Clk., for constructing a sewage disposal works and pumping station and for installing machinery. For details see advertisement under "Contracts To Be Let."

Balimore, Md.—Bids will be received until Mar. 24 by the Board of Awards for constructing an intercepting sewer under Sanitary Sewer Contract No. 144. Plans are on file with H. W. Rogers, American Bldg.

Huntington, W. Va.—Bids will be received until Mar. 22 by the City Commissioners for constructing sewers in 17th and 22nd St. and in various alleys. L. A. Pollock is Comr. of Streets and Sewers.

Manning, S. C.—See item under "Water Supply—Irrigation."

Winnsboro, S. C.—An election will be held Mar. 29 to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a sewer system. Noted Aug. 27.

Jefferson, Ga.—Bids will be received until Apr. 19 by Homer Hancock, City Clk., for constructing 11,000 ft. of 8-in. and 2100 ft. of 10-in. vitrified pipe sewer. The Solomon-Norcross Co., Atlanta, is Engr.

✚Miami, Fla.—Contracts have been awarded to the BISCAYNE CONSTRUCTION CO., Miami, and to the MANLEY-STEARNS CONSTRUCTION CO., for constructing a main sewer in Ninth St. from Ave. L to the river and for constructing lateral sewers, respectively. Noted Feb. 4.

Pablo Beach, Fla.—Bids will be received until Mar. 20 for constructing a sewer and an electric-light plant. The J. B. McCrary Co., Atlanta, Ga., is Engr. Noted Oct. 1 and Mar. 11.

Meridian, Miss.—The city plans to hold an election to vote on the question of issuing bonds for $30,000, the proceeds of which will be used for the construction of sewers and for street work. J. W. Parker is Mayor.

De Ridder, La.—See item under "Water Supply—Irrigation."

Barberton, Ohio—(Official)—Bids will be received until noon, Mar. 22, at the office of the Board of Control, for furnishing the necessary material and labor for constructing main and local storm sewers in Storm Sewer District No. 1. O. D. Everhard is Dir. Pub. Ser.

✚Hamilton, Ohio—The Board of Control has awarded the contract for the construction of the Crawfords Run sewer, east of Front St., to JOHN TRUNCK, at $6860.

✚Ft. Wayne, Ind.—The city has awarded the contract for the construction of two sewers in Pfeiffer Pl., totaling 2½ miles, to the MOELLERING CONSTRUCTION CO., at $1.45 per lin.ft.

Gary, Ind.—Bids will be received until Mar. 29 by H. C. Francis, City Clk., for the construction of District Sewer No. 24, requiring 580 ft. 18-in., 1280 ft. 15-in., 1195 ft. 12-in., 200 ft. 19-in. vitrified sewer tile; 918 ft. 36-in. concrete sewer; 23 manholes; 5 catchbasins and one gutter inlet. The estimated cost is $11,569.

Indianapolis, Ind.—(Official)—Bids will be received by the Board of Public Works until Mar. 31 for the construction of sewers in College Ave. and 38th St. The estimated cost is $308,000. Charles A. Brown is Asst. City Engr.

Flint, Mich.—(Official)—Bids will be received until 3 p.m., Apr. 1, by D. E. Newcombe, City Clk., for the construction of a storm sewer in Oakland St., to be known as the Leith St. Subway Sewer.

✚Joliet, Ill.—The Board of Local Improvements has awarded the contract for the construction of a sewer in Hyde Park Ave. to ROBERT SHANNON. The contract for a sewer in Market St. was awarded to W. B. CURTIS. Arthur M. Barry is Clk. of the Bd.

Racine, Wis.—Bids will be received by the Board of Public Works until 10 a.m., Mar. 20, for constructing sewers in various streets.

Des Moines, Iowa—The State Legislature is considering a bill providing for the construction of a sewer system at the state fair grounds. The estimated cost is $14,000.

Sioux City, Iowa—The city contemplates the construction of two sewers in Morningside. The estimated cost is $26,000. T. S. Johnson is City Engr.

Rochester, Minn.—The State Board of Control plans to construct a new sewer system at the State Hospital. A 12-in. main is being considered. The Pillsbury Engineering Co., Minneapolis, is Engr.

St. Paul, Minn.—Bids will be received until 10 a.m., Mar. 22, by August Hohenstein, Pur. Agt., for the construction of sewers in Glenham, Maplewood and Medford Ave. Bids will also be received at the same time for the following supplies: 100 manhole covers, 50 manhole frames, 40 round catchbasin frames and covers, 40 square catchbasin frames and covers, 50 square catchbasin grates, 30 square catchbasin lids and 20 hooks.

Salina, Kan.—Bids will probably be received in May for the construction of 2500 ft. of 36-in. pipe sewer in Ash St. P. G. Wakenhut is City Engr.

Grand Island, Neb.—(Official)—H. W. Kibbey, City Engr., advises that the city contemplates the construction of a sewer system.

Butte, Mont.—A resolution is before the City Council providing for the construction of a sewer system south of Silver Bow Creek. The estimated cost is $130,000.

Maplewood, Mo.—The city will build a sewer, ½ mile long, from the eastern limits of the city to the River Des Peres. It will be constructed at from 15 to 36 ft. below the surface. The estimated cost is from $40,000 to $50,000.

Hillsboro, Tex.—An election will be held Apr. 6 to vote on the question of issuing $5000 in bonds, the proceeds of which will be used for making improvements to the sewer system.

+Houston, Tex.—The City Council has awarded the contract for the construction of a storm sewer in Golf Link Place, private lane from San Felipe to Buffalo Bayou, to HORTON & HORTON. Noted Nov. 12.

+Limon, Colo.—The contract for the construction of a sewer system has been awarded to the GEORGE H. SETHMAN CO., Denver.

+Idaho Falls, Idaho—The Utah-Idaho Sugar Co. has awarded a contract to CHARLES H. HELMAN, Twin Falls, Idaho, for the construction of a 20-in. vitrified clay pipe sewer from Idaho Falls to the Snake River. The estimated cost is from $20,000 to $30,000.

Enumclaw, Wash.—Bids will be received until Mar. 31 by O. E. Magnuson, City Clk., for the construction of a main trunk sewer. The work includes excavating and refilling 12,100 ft. of trench, building 18 manholes and 9 lampholes. Plans have been prepared by W. I. Lippard, City Engr.

Albany, Ore.—The City Council has authorized the City Engineer to prepare plans for a sewer to be constructed from Calapooia along a feasible route to the north line of Klamath St. Bids will be received about Mar. 24.

+Long Beach, Calif.—The contract for the construction of an ocean outlet for the main outfall sewer has been awarded to the MERCEREAU BRIDGE & CONSTRUCTION CO., Los Angeles, at $29,007. The work involves the laying of about 1100 ft. of c.-i. pipe.

Martinez, Calif.—The City Trustees have authorized the construction of two lines of 14-in. main sewers from the city limits to the tidelands. Elam C. Brown is City Engr...

+San Francisco, Calif.—The Board of Public Works has awarded a contract for the construction of a sewer in Hudson Ave. between Lane and Mendel St. to F. ROLANDI, at $8014.

GARBAGE

Trenton, N. J.—The City Commission has rejected all bids received Feb. 26 for the disposal of municipal garbage.

Reading, Penn.—The following bids were received for the collection of garbage. The contractor may use the city's teams, 14 in number, or as many as needed: (Prices are per team per day) E. E. Moore & Bro., Inc., $3.88; William H. Hendricks, $4.18; Fehr & O'Rourke, $4.23; Peoples Bros., Inc., $4.45; N. H. Garman & Bro., $4.50.

Norfolk, Va.—See item under "Federal Government," Garbage Incinerator.

Huntington, W. Va.—The city has purchased a site, 113x125 ft., on which an incinerator will be constructed. The estimated cost is $10,000. O. H. Wells is Comr.

+Winston-Salem, N. C.—The contract for the construction of a garbage crematory has been awarded to the NYE ODORLESS CREMATORY CO., Macon, Ga.

Dublin, Ga.—It is reported that the city will soon vote on the proposition of issuing $75,000 in bonds for the construction of a garbage disposal plant.

Rock Island, Ill.—Bids will be received until 2 p.m., Apr. 3, by Martin T. Rudgren, City Clk., for the installation of a 12-ton garbage incinerator. Estimated cost, $5000 to $6000. Noted Dec. 3.

Joplin, Mo.—D. R. Hill, Comr. Health, is reported to have recommended the construction of a municipal incinerating plant.

Portland, Ore.—Immediate steps will be taken to dispose of the $200,000 bond issue voted at a recent election for the construction of a garbage incinerator. The building will be of reinforced concrete.

STREETS AND ROADS

Boston, Mass.—Bids will be received until Mar. 19 by the Park and Recreation Department for paving Columbia Rd. with bitulithic. John H. Dillon, 33 Beacon St., is Chn. of Bd.

+Boston, Mass.—The contract for the construction of 2600 lin.ft. of concrete road in North Andover has been awarded by the State Highway Commission to B. PERINI, Ashland, at $7544. Other bids were: J. A. Gaffey, Medford, $7905; J. J. McCarthy, Boston, $8201; T. A. Moynihan, Arlington, $8330; E. R. Hyde, Somerville, $8417; A. C. Converse & Co., Boston, $8499; P. Bompani, Quincy, $8585; A. M. Cusack, Boston, $8695; J. H. Fannon, Somerville, $9019; Martin de Mateo, Boston, $9496; D. J. Sheehan & Co., Lynn, $9515; R. F. Hudson, Melrose, $9756; J. Waquebach & Son, Lawrence, $10,223; F. F. Ellis, Melrose, $12,389. Noted Mar. 4.

Boston, Mass.—Bids will be received until Mar. 26 by the Park and Recreation Department for wood block pavement in Commonwealth Ave. John H. Dillon, 33 Beacon St., is Chn. of Bd.

Boston, Mass.—Bids will be received until Mar. 23 by the Public Works Department for paving Boylston St. with wood block and for repairing all asphalt or bitulithic pavements not under guarantee during 1915.

Boston, Mass.—Bids will be received until Mar. 22 by the Department of Public Works for constructing bituminous macadam roadways on Broad and Montvale St., West Roxbury. L. K. Rourke is Comr.

Quincy, Mass.—(Official)—Bids will be received until noon, Mar. 22, by the Metropolitan Park Commission, 14 Beacon St., for subgrading Furnace Brook Parkway from Quincy Shore Reservation to Hancock St.

+Woonsocket, R. I.—The Board of Aldermen has awarded the contract for paving Pond St. to SIMPSON BROS. CORP., Boston, Mass., at $21,995. Noted Mar. 4.

Hartford, Conn.—Bids will be received by the State Highway Commissioner, Room 27, State Capitol, until 2 p.m., Mar. 22, for State road work as follows: Bloomfield Township; About 6610 lin.ft. of native stone macadam. Also about 6879 lin. ft. of trap rock macadam and surfacing. Plans are on file with George F. Humphrey, First Selectman, Bloomfield. South Windsor Township; about 8310 lin.ft. of bituminous native stone macadam. Plans are on file with W. W. Grant, First Selectman South Windsor. Wethersfield Township; about 7685 lin.ft. of bituminous macadam. Plans are on file with A. W. Hanmer, First Selectman, Wethersfield. Enfield Township; 8650 lin.ft. of special macadam. Plans are on file at Town Clerk's office, Town Bldg., Enfield. Columbia Township; about 9964 lin.ft. of native stone macadam. Plans are on file at Selectmen's office, Columbia. Windham Township; about 6930 lin.ft. of crushed gravel. Plans are on file at Selectmen's office, Willimantic. Waterbury City; about 10,100 lin.ft. of gravel. Plans are on file at City Engineer's office, Waterbury. Stamford Township; about 4810 lin.ft. of gravel or native stone macadam. Plans are on file at Selectmen's office, Stamford.

Elmira, N. Y.—The City Council contemplates laying about 12,000 sq.yd. of brick paving. T. A. Brown is City Engr.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Mar. 10 for improving Ave. U from Coney Island to Gravesend Ave. as follows: N. Sanzo, 841 Third Ave., Brooklyn, $5539; T. Hickey, $6876; Castle Bros., $6115; McAuliff & Crowley, $7169; A. Wright, $6841; Ulrich & Co., $6364; A. W. Dumproff, $7949; Grimm Construction Co., $6709; W. T. Maxwell, $7147; T. W. Castle, $6509; L. Granato, $8287; W. W. Sherman, $6874; J. J. Guinan, $7323; McKenna & Gallagher, $6964. Noted Mar. 4.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Mar. 24, by L. H. Pounds, Borough Pres. for improving various streets.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received Mar. 11 for paving the City Island Rd. from the Eastern Blvd. to the City Island Bridge with asphaltic concrete, as follows: Municipal Asphalt Paving Co., 1451 Broadway, $19,812; Barber Asphalt Paving Co., $27,535; M. J. Leigh, $24,681; Sicilian Asphalt Paving Co., $25,185; Barker Bonner Co., $21,827; W. P. McDonald, $21,924; Uvalde Asphalt Co., $23,841; Asphalt Construction Co., $20,819. Noted Mar. 4.

+New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for improving Marginal St. and piers of the North, East and Harlem Rivers has been awarded to the SICILIAN ASPHALT PAVING CO., 41 Park Row. Noted Feb. 18 and Mar. 11.

New York, N. Y.—(Borough of Queens)—(Official)—The Sicilian Asphalt Paving Co. was low bidder at $15,528 for improving sheet asphalt and asphaltic concrete pavement in the Second, Fourth and Fifth Wards. Noted Mar. 4.

New York, N. Y.—(Borough of Queens)—(Official)—D. M. O'Connell, at $25,063 was low bidder for improving a section of College Causeway. Noted Mar. 4.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m., Mar. 24, by Maurice E. Connolly, Borough Pres., for improving Creek St. from Borden Ave. to Hunters-Point Ave.; Perry Ave. from Mueller (Fiske) St. to Broad St.; Stillman Ave. from Dickson St. to west of Van Pelt St.; Sutphin Rd. from Jamaica Ave. to Lambertville Ave., Prospect St. from Harris Ave. to South Jane St.; Grand Ave. from Crescent St. to Second Ave.; Henry St. from Jackson Ave. to Prospect St., First St. from First to Third Ave.

White Plains, N. Y.—(Official)—Bids will be received until noon, Mar. 24, by Robert A. Patterson, Controller of Westchester County, for the sale of $14,994 in bonds, the proceeds of which will be used for improving and constructing highways.

Blackstone, N. J.—Bonds for $5500 have been voted to pay for the Township's share of the construction of the Blackwood-Clementon stone road.

+Deal Beach, N. J. — The Board of Commissioners has awarded a contract for paving Ocean Ave. with brick to the SCHEFFLER-BURNS PAVING CO., at $132,364. Noted Dec. 3, 1914.

East Orange, N. J.—The Board of Chosen Freeholders of Essex County, Newark, plans to lay new pavement on Central Ave.

Freehold, N. J.—The Board of Chosen Freeholders of Monmouth County has approved plans for the improvement of Riverside Drive, Middletown Township.

Hackensack, N. J.—(Official)—Bids will be received until 2 p.m., Apr. 2, by the Board of Chosen Freeholders of Bergen County for improving Broadway from the Arcola Bridge to the Passaic River; Anderson Ave. from Lafayette Ave. to the Hudson county line; Kinderkamack Rd., Sixth Section. Harry A. Shuart is Clk.

+Irvington, N. J.—The contract for paving and curbing Linden St. has been awarded to the NEWARK PAVING CO. at $19,313.

Jersey City, N. J.—Bonds for $150,000 were sold Mar. 11, the proceeds of which will be used for paving and repairing the Hudson County Blvd. Noted Mar. 4.

+Moorestown, N. J.—A contract for constructing the State Aid road between Hartford and Fairview has been awarded to J. F. SHANLEY CO., Philadelphia, Penn., at $8600. Noted Feb. 25.

+★Mt. Holly, N. J.—(Official)—The contract for constructing stone roads in Burlington County has been awarded to PAUL J. SNYDER, Bailey Bldg., Philadelphia. Noted Feb. 18 and Mar. 11.

Newark, N. J.—The Board of Chosen Freeholders of Essex County plans to lay new pavement on South Orange Ave.

Newark, N. J.—Bids were received Mar. 4 for improving Orange Ave. (a) from First to city line with wood block, (b) from High to First St. with granite as follows: Hassam Paving Co., (a) $36,778, (b) $39,042; O'Gara & Maguire, (a) $34,104, (b) $35,682; John E. Donovan, (a) $33,775, (b) $36,774; Ralph Langrovamin, (a) $35,454, (b) $36,380; Northern Construction Co., (a) $37,576, (b) $39,422; Newark Paving Co., (a) $32,948, (b) $34,765; John S. Geigers Sons, (a) $32,699; Van Keuren & Son, (a) $33,857, (b) $34,336; Jackson Contracting Co., (b) $36,487; Alder Construction Co., (b) $38,486. Noted Feb. 25.

Newark, N. J.—The Board of Public Works plans to pave Broad St. from South to Poiner St. with asphalt.

Perth Amboy, N. J.—The Board of Aldermen plans to pave Front St. south from Market St. with stone block.

Phillipsburg, N. J.—Press reports state that the City Council plans to pave South Main St. with brick or concrete. F. Kneedler is Mayor.

Somerville, N. J.—(Official)—Bids will be received until 10 a.m., Apr. 2, by the Board of Chosen Freeholders of Somerset County for improving Finderne Ave. Joshua Doughty, Jr. is County Engr.

Trenton, N. J.—The Board of Chosen Freeholders of Mercer County has authorized Theodore Tobish, County Engr., to prepare plans for constructing the Hightstown-Princeton Junction Rd. Noted Sept. 24, 1914.

West Pittston, Penn (Pittston post office)—The Borough Council contemplates an expenditure of $55,000 for paving this season.

★Cumberland, Md.—(Official)—Bids will be received until 9:30 a.m., Apr. 5, by A. W. Straub, City Clk., for paving 16 streets with brick on concrete base. James P. Gaffney is City Engr.

Rockville, Md.—Press reports state that bids will be received until Mar. 23 by the Commissioners of Montgomery County for constructing 3.52 miles of State aid highway.

Towson, Md.—Bids will soon be received by the Baltimore County Commissioners for widening and improving Roland Ave. from Deepdene Rd. to Lake Ave., to be 106 ft. wide, 10-ft. sidewalk on each side and two 29-ft. driveways, parking 28 ft. wide in center. The estimated cost is $68,000.

Lawrenceville, Va.—Bids will be received until Mar. 22 by the County Clerk for constructing about 70 miles of roads in Brunswick County.

Lovingston, Va.—At the election held Feb. 28 the citizens of Nelson County voted in favor of issuing $30,000 in bonds for constructing 8 miles of macadam road. Noted Feb. 11.

Petersburg, Va.—Bonds for $80,000 have been sold, the proceeds of which will be used for street roadway improvements.

Pulaski, Va.—Bids will be received until 2 p.m., Mar. 20, by the City Council for paving about seven miles of streets with macadam and concrete. The estimated cost is $80,000. M. S. Hudgins is City Engr.

Newland, N. C.—Bids will be received until noon, Apr. 6, by P. Maclay Brown, Secy. of the Bd. of Rd. Comrs. of Avery County, for the sale of $150,000 in bonds for constructing roads.

Raleigh, N. C.—Bids will be received until noon, Mar. 22, for the sale of $57,000 in bonds, the proceeds of which will be used for improving roads.

✚Atlanta, Ga.—The contract for grading Moreland Ave. from Greenwood Ave. to city limits has been awarded to EWING & BRANDON.

Jacksonville, Fla.—(Official)—Bids will be received until 10 a.m., Mar. 25 by the Commissioners of Duval County for paving and grading a number of roads. E. A. Ricker is Chn. of the Comrs.

Largo, Fla.—At a recent election the citizens voted in favor of issuing $11,000 in bonds for street paving.

Tavares, Fla.—Bids will be received until noon, Apr. 15, by H. H. Duncan, Clk. of the Bd. of Comr. of Lake County, for constructing and paving a number of roadways. J. B. McCrary Co., 1408 Third National Bank Bldg., Atlanta, Ga., is Engr. Noted Dec. 17, 1914.

Camden, Ala.—An election will be held Mar. 20 to vote on the question of issuing $25,000 in bonds for constructing roads and bridges in Wilcox County.

Elba, Ala.—The city contemplates constructing two or three miles of sidewalks. W. M. Tucker is Mayor.

Lafayette, Ala.—Bids will be received until Mar. 25 by the Commissioners of Chambers County for improving about five miles of the Welch and State Line Rd. W. S. Keller is State Highway Engr.

Jennings, La.—The citizens of Jefferson Davis Parish will vote sometime in April on the question of issuing $400,000 in bonds for constructing and improving roads.

New Orleans, La.—(Official)—Bids will be received until noon, Apr. 3, by Highway Department of the Board of State Engineers, Room 104, New Orleans Court Bldg., for constructing about five miles of the Jean-Colfax Highway, Ward 3, La Salle Parish. W. E. Atkinson is State Highway Engr.

Greeneville, Tenn.—Bids will be received until noon, Mar. 20, by H. J. Wisecarver, Secy. of the Pike Com., for the sale of $100,000 in bonds for constructing roads.

Carlisle, Ky.—Bids will be received about May 1 by James Mitchell, County Judge, for constructing approximately 250 miles of road in Nicholas County. Noted Jan. 28.

✚Louisville, Ky.—The contract for paving Green St. from First to Floyd St. with vitrified block has been awarded to the HENRY BICKEL CO., Louisville. Noted Mar. 11.

Madisonville, Ky.—Press reports state that the citizens of Hopkins County will vote May 8 on the question of issuing $300,000 in bonds for constructing roads and bridges.

Maysville, Ky.—The City Council plans to pave a number of streets with brick.

✚Akron, Ohio—Press reports state that the contract for paving Grant St. has been awarded to WINDSOR BROS.

Alliance, Ohio—Bids will be received until Apr. 6 by James I. Rickard, Dir. Pub. Ser., for improving North Arch Ave.

Barberton, Ohio—Bids will be received until Mar. 22 by O. E. Everhard, Dir. Pub. Ser., for improving Hopocan Ave. Harry W. Alcorn is City Engr.

Bucyrus, Ohio—Bids will be received until Apr. 9 by the Road Commissioners of District No. 1, Crawford County for the sale of $20,000 in bonds for constructing roads.

Caledonia, Ohio—Bids will be received until Apr. 3 by W. O. Gist, Clk., for grading, curbing and paving the public square with brick.

Canal Dover, Ohio—The City Council contemplates paving Third St.

Canton, Ohio—See item under "Miscellaneous," Creosoted Wood Block Floor.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Mar. 25, by the Board of Park Commissioners, 2005 Gilbert Ave., for constructing a roadway in Ault Park.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Mar. 26, by Philip Fosdick, Dir. Pub. Ser., for improving the right-of-way from Third to Martin St. by constructing concrete steps.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Apr. 9, by the Board of Commissioners of Hamilton County for improving Winton Ave. from Springfield Pike to McGilliard's and Cooper Rd. in Springfield Township.

Columbus, Ohio—(Official)—Bids will be received until noon, Apr. 2, by the Board of Commissioners of Franklin County, for building and completing the Norwich Township Central Rd. and the Souder Rd. in Jefferson Township.

Columbus, Ohio—(Official)—Bids will be received until noon, Mar. 31, by the Board of Commissioners of Franklin County, for improving a section of the Boehm Rd., Clark Rd. and the Doherty Rd.

Dayton, Ohio—(Official)—Bids will be received until 11 a.m., Apr. 1, by the Commissioners of Montgomery County for the sale of $18,000 in bonds, the proceeds of which will be used for improving roads.

London, Ohio—Bids will be received until Mar. 26 by J. W. Byers, Clk., for grading and paving Walnut St.

Mt. Gilead, Ohio—Bids will be received until noon, Apr. 9, by the Board of Commissioners of Morrow County for macadamizing 3½ miles of Benton Rd., in South Bloomfield Township. C. O. Higgins is County Audr.

Mt. Vernon, Ohio—Bids will be received until Mar. 29 by Walter M. Riley, County Audr., for grading the roadway in Hillier Township. Noted Feb. 25.

Napoleon, Ohio—(Official)—Bids will be received until 10 a.m., Mar. 31, by the Auditor of Henry County for joint county road improvement No. 150, Henry and Putnam Counties.

Painesville, Ohio—Bids will be received until noon, Apr. 12, by the Board of Commissioners of Lake County, for the sale of $17,000 in bonds, the proceeds of which will be used for paving Arnold and Ridge Rd. with brick. W. Albert Davis is County Audr.

Paulding, Ohio—Bids will be received until Mar. 20 by Edward McGarahan, Audr. Paulding County, for grading, draining and macadamizing about 40 miles of pike.

Upper Sandusky, Ohio—(Official)—Bids will be received until 11:30 a.m., Mar. 23, by Jay Marguerat, County Audr. of Wyandot County for improving the Salem-Crawford Township Rd.

✚Warren, Ohio—Contracts have been awarded for paving West Market St. to the SMITH ENGINEERING & CONSTRUCTION CO., $16,665, and Niles Ave. to TURNER & OLSON, Youngstown, $25,000. Noted Feb. 25.

Wooster, Ohio—Press reports state that bids will be received about June 1 by the Board of Commissioners of Wayne County for paving 1¾ miles of road. The estimated cost is $28,000. W. Fahr is Clk. of the Comn.

Wooster, Ohio—Bids will be received about Apr. 1 by Max Bloomburg, Dir. Pub. Ser. for paving North Beaver St. The estimated cost is $20,000.

Danville, Ind.—(Official)—Bids will be received until 10 a.m., Apr. 19 by the Commissioners of Hendricks County for constructing six roads. L. W. Borders is County Audr.

Indianapolis, Ind.—(Official)—Bids will be received until 10 a.m., Mar. 22, by the Board of Public Works for improving Gray St.

✚Paoli, Ind.—The contract for constructing the French Lick Township gravel road has been awarded to EVERETT LANKFORD, Paoli, Ind., at $4444.

✚Warsaw, Ind.—The contract for constructing a road in Lake Township has been awarded to MILES & SHAFFER, Upland, Ind., at $22,847. Noted Feb. 18.

Champaign, Ill.—(Official)—The city plans to pave several streets with brick on concrete base. L. N. Sizer is City Engr.

Chicago, Ill.—Bids will be received until Mar. 20 by the Department of Public Works for approximately 1,500,000 gal. road oil. L. E. McGann is Comr.

✚Glencoe, Ill.—A contract for constructing 2900 sq.yd. of concrete pavement has been awarded to the WAUKEGAN IMPROVEMENT CO., Waukegan, Ill., at $7490.

✚Minonk, Ill.—A contract for laying two miles of repressed brick pavement has been awarded to I. D. LAIN, Bloomington, Ill.

Pekin, Ill.—Bids will soon be received for 23,790 sq.yd. of brick paving on Second and State St. The estimated cost is $49,813. B. F. Smith is City Engr.

✚Peoria, Ill.—A contract for paving Underhill St. from Main to Russell St. and Windom St. from Bourland to Elmwood St. has been awarded to JOHN McALLISTER.

✚Jefferson, Wis.—The Board of Public Works awarded to L. LARSEN CONSTRUCTION CO., Oshkosh, Wis., contracts for vitrified brick paving on parts of Milwaukee, Dodge and First St., and reinforced-concrete paving on parts of Main St. and several alleys, at $24,744. Noted Feb. 11.

Marinette, Wis.—(Official)—Bids will be received until 2 p.m., Apr. 7, by A. L. Hillis, City Engr., for constructing about 11,000 sq.yd. of concrete pavement.

Milwaukee, Wis.—Bids will be received until 11 a.m., Mar. 22, by Louis G. Widule, County Clk., for constructing the Beloit, Mukwanago and Watertown Rd. of the Milwaukee County highway system. H. J. Kuelling is County Highway Comr.

+Mt. Horeb, Wis.—A contract for laying 19,300 sq.yd. of concrete pavement has been awarded to N. QUINN, Madison, at $21,359.

Prairie du Chien, Wis.—(Official)—Bids will be received until 8 p.m., Apr. 14, by W. H. Turbitt, City Clk., for constructing 9106 sq.yd. of permanent pavement on concrete foundation.

Racine, Wis.—James Mutter, County Highway Comr., Racine, is completing plans for reinforced-concrete, tar macadam and bitulithic paving on Racine County highway system for 1915. Bids will be received about Mar. 22. Estimated cost, $60,000.

Sheboygan, Wis.—Bids were received Feb. 27 for paving North Fourth St. as follows: John Braun, Sheboygan, $22,044; J. Rasmussen, Oshkosh, $22,349; Franz Radloff, Plymouth, $23,327. Noted Feb. 25.

+Watertown, Wis.—A contract for constructing reinforced-concrete pavement has been awarded to LEHMAN BROS. at $8704.

+Manchester, Iowa—A contract for improving Howard and Butler St. has been awarded to WILLIAM JEWELL, Manchester.

+Tipton, Iowa—A contract for paving 40,000 sq.yd. has been awarded to THOMAS CAREY & SONS, Clinton, Iowa, at $80,800.

+Holton, Kan.—A contract for paving has been awarded to JAMES STANTON, Leavenworth, Kan., at $29,391. Noted Mar. 11.

Larned, Kan.—The City Council contemplates paving a number of streets.

Alliance, Neb.—Bids will be received until 8 p.m., Mar. 30, by George F. Snyder, City Clk., for improving a number of streets. The estimated cost is $5700.

★Fargo, N. D.—(Official)—Bids will be received until 10:30 a.m., Mar. 31 by the Board of Commissioners for the sale of $140,000 in warrants for paving. A. R. Watkins is City Audr. For particulars see advertisement under "Contracts to Be Let."

Thompson Falls, Mont.—Bonds for $65,000 were sold Mar. 1, the proceeds of which will be used for constructing roads.

Bryan, Tex.—At the election held Mar. 3 the citizens voted in favor of issuing $400,000 in bonds for constructing and improving roads in Brazos County. Noted Feb. 4.

Houston, Tex.—Press reports state that the City Council has approved the plans for paving Maple and German St.

Terrell, Tex.—Bids will be received until Mar. 23 by J. Truehart, City Secy., for improving North Rockwell Ave. from Moore Ave. to Howard St.

Wichita Falls, Tex.—Bonds for $45,000 have been sold, the proceeds of which will be used for improving a number of streets. Noted Jan. 28.

+Brighton, Colo.—Press reports state that a contract for constructing a gravel road in Adams County has been awarded to PLEASANT DES PAIN, Westminster, Colo.

Soda Springs, Idaho—The Town Council contemplates paving 1½ miles of Dillon St. with block concrete. Work will start in the early spring.

Price, Utah—An election will be held Apr. 12 to vote on the question of issuing $31,000 in bonds for constructing roads.

+Buckley, Wash.—A contract for completing the paving on River Ave. has been awarded to D. A. TROLSON.

Davenport, Wash.—Bids have been received by the Commissioners of Lincoln County for constructing Highway No. 1-A as follows: Jacobsen-Bede Co., Portland, low bidder, $42,534; Spokane Asphalt Macadam Paving Co., Spokane, $44,243; A. H. Zane Co., North Yakima, $45,424; Carlson-Chindahl Co., Spokane, $46,492; H. L. Wilson, Walla Walla, $46,985; G. L. Stickler, Davenport, $50,560. Noted Feb. 18.

Port Townsend, Wash.—Bids have been received by the Commissioners of Jefferson County for constructing permanent highway No. 2-A as follows: J. Coyne, Port Townsend, $8900; Gerch & Gass, Seattle, $10,748; Rowan & Anderson, Seattle, $11,400; Atlas Construction Co., Everett, $11,741; Keenan & Doyle, Seattle, $12,194.

North Bend, Ore.—Bids will be received until Mar. 23 by the City Engineer for paving Sherman Ave. and Washington St.

Portland, Ore.—Press reports state that the City Council plans to repave Russell St. from Gantenbein to Williams Ave.

Belvedere, Calif.—Plans have been prepared by the City Engineer for constructing a waterfront road. The estimated cost is $150,000.

+Brawley, Calif.—The contract for improving Main and other streets has been awarded to the CALIFORNIA-ARIZONA CONSTRUCTION CO., Los Angeles, Calif., at $71,608. Noted Feb. 4.

+East San Diego, Calif.—A contract for improving sections of University Ave., Steiner, and other streets has been awarded to the FEDERAL CONSTRUCTION CO., Sharon Bldg., San Francisco, at $97,185.

Hanford, Calif.—Press reports state that an election will be held May 6 to vote on the question of issuing $672,500 in bonds for constructing and improving roads in Kings County.

+Los Angeles, Calif.—R. F. WYCKOFF, 408 Consolidated Realty Bldg., has been awarded the contract at $65,708 for improvements in the Los Feliz Ave. and Harvard Blvd. improvement district.

Oroville, Calif.—Bids will be received until Mar. 25 by the City Clerk for paving various streets.

Portersville, Calif.—The supervisors of Tulare County, Visalia are contemplating the construction of a 12-mile, 22-ft. highway from Portersville, through Plano to the Deer Creek foothills.

+San Francisco, Calif.—The Board of Public Works has awarded contracts for street work as follows: Grading and paving of Taraval St. from 37th Ave. to the Great Highway, to the SUNSET CONSTRUCTION CO., at $23,900; Balboa St. from 45th to 46th Ave., to the BLANCHARD-BROWN CO., at $6400, and paving of Columbus Ave. from Bay to North Point St., to D. L. BIENFIELD, at $4150.

+Nanaimo, B. C.—The contract for paving Haliburton, Skinner and Front St. has been awarded to H. S. KAISER, 718 Granville St., Vancouver, at $50,000.

INDUSTRIAL WORKS

North Adams, Mass.—According to press reports, the Hoosac Cotton Co. contemplates the construction of an addition to its plant. Estimated cost, $1,000,000.

Hartford, Conn.—William Ruinick, 26 Clark St., has had plans prepared by George Zunner, Arch., 756 Main St., for the construction of a two-story, 37x100-ft. garage at 278 Main St.

★Delhi, N. Y.—(Official)—Bids will be received until 2 p.m., Mar. 26, by William H. Maynard, Pres. of Bd. of Control, State School of Agriculture and Domestic Science, for the construction of a dairy building for the institution. Lewis E. Pilcher, Capitol, Albany, N. Y., is Arch.

+New York, N. Y.—(Borough of Brooklyn)—The general contract for the construction of a two-story addition to the factory at 271 Lexington Ave. for F. C. Meyer has been awarded to EDWARD J. FELGENHAUER, 1199 Carroll St. Estimated cost, $15,000.

New York, N. Y.—(Borough of Brooklyn)—Plans are being prepared by W. B. Tubby, 81 Fulton St., New York, for the construction of a four-story addition to the factory at 1155 Manhattan Ave. for the Chelsea Fibre Mills, 33 Union Sq. W., New York, N. Y. Estimated cost, $30,000.

+New York, N. Y.—(Borough of Manhattan)—The contract for the foundation work of the six-story storage building at 438 East 91st St. for William P. Cunningham, has been awarded to the UNDERPINNING & FOUNDATION CO., 290 Broadway. Estimated cost, $50,000. Noted Jan. 28.

Jamestown, N. Y.—Bids will soon be received for the construction of a three-story, 50x106-ft. factory for the Crescent Tool Co. Estimated cost, $55,000.

Jamestown, N. Y.—Wilson & Craig, Arch., is preparing plans for the construction of a three-story, 50x80-ft. warehouse for the Ames Transfer Co. Estimated cost, $25,000.

Rochester, N. Y.—Bids will be received by Cord & Ives, Arch., for the construction of a two-story, 90x100-ft. plant for Henry Connolly & Co., 42 Stone St. Estimated cost, $12,000.

+Syracuse, N. Y.—The contract for the construction of a warehouse for George C. Buell & Co., Exchange St., has been awarded to E. K. FENNO, at $120,000.

White Plains, N. Y.—Plans are being prepared by Frank Horton Brown, First National Bank Bldg., Mt. Vernon, N. Y., for the construction of a two-story, reinforced-concrete storage building on North St. for the Bloomingdale Hospital. Estimated cost, $20,000.

Yonkers, N. Y.—Roger S. Conant, 14 South Broadway, is preparing plans for the construction of a storage building and machine shop at 350 South Broadway for the Terrace City Motor Car Co., Inc.,14 South Broadway.

Newark, N. J.—Plans are being prepared by Frank Grad, 245 Springfield Ave., for the construction of a two-story factory on Halsey St. for the Essex Realty & Investment Co., 142 Market St. Estimated cost, $10,000.

Newark, N. J.—Plans are being prepared for the construction of a one-story, 70x200-ft. addition for Heller & Merz Co., Hamburg Pl. Estimated cost, $18,000.

Erie, Penn.—Plans are being prepared by Armin Schott, Arch., Erie Trust Bldg., for the construction of a one-story, 250x300-ft. factory for the Erie Stove & Mfg. Co.

+New Castle, Penn.—The contract for the construction of an addition to the plant of the Carnegie Steel Co. has been awarded to the PENNSYLVANIA ENGINEERING CO. Estimated cost, $2,000,000.

Philadelphia, Penn.—Bids will be received by Edward J. Schoettle Co., 237 N. Sixth St., for the construction of an eight-story, reinforced-concrete factory at 11th and Brandywine St. Day & Klauder, 925 Chestnut St., is Arch. Noted Feb. 4.

Newport News, Va.—According to press reports the International Tool Co. plans to construct a plant. Estimated cost, $20,000. I. H. Case is Pres.

Richmond, Va.—Preliminary plans are being prepared for the construction of a warehouse at Fifteenth and Franklin St. for Fleming & Christian. Estimated cost, $20,000.

Norwood, W. Va.—The Norwood Glass Co., Clarksburg, plans to construct an addition to its plant for the manufacture of hard-blown glass. Estimated cost, $75,000.

+Macon, Ga.—The contract for the construction of an addition to the plant of the Bibb Mfg. Co. has been awarded to the GALLIVAN BUILDING CO., Greenville, S. C. Estimated cost, $20,000.

Rome, Ga.—An addition will be constructed to the plant of the Anchor Duck Mills. The estimated cost is $20,000.

Decatur, Ala.—The Decatur Car Wheel Co. plans to construct an addition to its plant for manufacturing frogs and switches. Estimated cost, $200,000.

Troy, Ala.—Preliminary plans are being prepared for the construction of a feed mill for L. M. Bashinsky and Ewell C. Bassett. Estimated cost, $50,000.

Natchez, Miss.—Bids will be received soon by Neely Bros. Corn & Grist Mill Co., for the construction of a grain elevator. Estimated cost, $30,000.

Memphis, Tenn.—Plans are being prepared for the construction of a cottonseed oil mill for Edward Tilden, Chicago, Ill. Estimated cost, $100,000.

+Cleveland, Ohio—The contract for the construction of an addition to the plant of the Electric Welding Co., 2206 Clarkwood Ave., has been awarded to L. A. DAUTEL & SONS CO., 5710 Hough Ave. Estimated cost, $16,000.

Cleveland, Ohio—The National Acme Manufacturing Co. is having plans prepared for the construction of a factory on Santon Ave. Estimated cost, $125,000.

Cleveland, Ohio—Preliminary plans are being prepared for the construction of a four-story, 200x322-ft. factory for the Richman Bros. Co., 1299 West Ninth St. Estimated cost, $300,000.

Lima, Ohio—The National Peat Refining Co. will construct a $20,000 refinery.

Springfield, Ohio—The Elwood Myers Co. contemplates the construction of a two-story addition to its plant on Main St.

Tippecanoe City, Ohio—The Atlas Portland Cement Co. plans to construct a plant having a capacity of 5000 bbl. of cement per day. Estimated cost, $1,000,000.

Youngstown, Ohio—The Republic Iron & Steel Co. is having plans prepared for the construction of a benzol plant. Estimated cost, $300,000.

Evansville, Ind.—The Crescent Stove Co. plans to construct an addition to its plant. Estimated cost, $50,000.

Mishawaka, Ind.—The Mishawaka Woolen Mfg. Co. plans to construct two factory buildings. Estimated cost, $500,000.

+Detroit, Mich.—Contracts for the construction of a four-story, reinforced-concrete warehouse for the Endicott Johnson Co. have been awarded as follows: M. I. FORD, Binghamton, N. Y., concrete and cement work; FRANK E. WHITTEMORE, Lestershire, N. Y., foundation work; N. P. BRINK, Binghamton, structural steel. Estimated cost, $150,000.

Chicago, Ill.—Paul Gerhardt is preparing plans for the construction of a five-story, 100x100-ft. warehouse at 218 West Ohio St. for Carl Marty. Estimated cost, $150,000.

+Chicago, Ill.—The contract for the construction of a four-story, 50x95-ft. factory at Harrison and Fifth Ave. for J. & B. Moos, has been awarded to the SOLOMON-WATERTON CONSTRUCTION CO., 343 S. Dearborn St., at $40,000.

Chicago, Ill.—Marshall Field & Co., 22 East Washington St., is having plans prepared by William Ernest Walker, Arch., 38 South Dearborn St., for the construction of an addition to its garage at 4347 Ravenswood Ave. The estimated cost is $20,000.

De Pere, Wis.—The Western Steel & Iron Works has had plans prepared for the construction of a two-story brick addition on Main Ave.

Milwaukee, Wis.—Plans have been prepared for the construction of an addition to the shoe factory on East Water St. for R. Weyenberg. Estimated cost, $80,000.

Faribault, Minn.—According to press reports, the Faribault Packing & Provision Co. plans to construct a packing plant. Estimated cost, $500,000.

+Minneapolis, Minn.—The S. R. Sikes Co. has awarded the contract for the construction of a three-story factory to ELSON-WILLIAMS, 830 Hennepin Ave., Minneapolis, Minn.

Kansas City, Mo.—E. C. Sooy, Pres. of the Kansas City Hay Press Co., Eighth and Mill St., will construct a 100x160-ft. garage and machine shop. The estimated cost is $15,000.

San Antonio, Tex.—The Linnartz & Frey Co. will construct a fireproof warehouse at Dakota and Walnut St. Estimated cost, $15,000.

+Seattle, Wash.—R. W. Pridham, White Bldg., has awarded the contract for constructing the first unit of a paper board factory to H. D. STEWART, American Bank Bldg., at $55,000. The entire plant will cost $140,000.

Seattle, Wash.—Bids will be received until 1:30 p.m., Mar. 24, by the Port Commission for the construction of a fish and ice storage building at Whatcom Ave. and Spokane St. Estimated cost, $50,000. Noted Mar. 4.

Tacoma, Wash.—Henry Hewitt, Jr., and D. D. Bleyker contemplate the construction of a plant for the manufacture of writing paper. Estimated cost, $300,000.

Armona, Calif.—Preliminary plans are being prepared for the construction of a packing plant for the Kings County Packing Co. Estimated cost, $75,000.

+Los Angeles, Calif.—The contract for the construction of a factory on East Eighth St. for the General Chemical Co. has been awarded to the DAVIDSON CONSTRUCTION CO., 16th and Tennessee St., at $14,000. Noted Feb. 18.

San Fernando, Calif.—The San Fernando Heights Lemon Co. is having plans prepared by H. J. Knauer, 441 Wesley Roberts Bldg., Los Angeles, Calif., for the construction of a 80x172-ft. packing plant. Estimated cost, $12,000.

San Francisco, Calif.—O'Brien Bros., Arch., is preparing plans for the construction of an addition to a garage at Bush and Taylor St. for Dolson & Anderson. Estimated cost, $25,000.

+San Francisco, Calif.—The Western Sugar Refining Co. has awarded the contract for the structural steel work on its proposed factory to the GOLDEN WEST IRON WORKS, at $56.75 per ton. Noted Dec. 31 and Jan. 21.

Hamilton, Ont.—The United States Horse Shoe Co., Erie, Penn., contemplates the construction of a plant in Hamilton. Estimated cost, $125,000.

FEDERAL GOVERNMENT WORK

Building—Portland, Maine—Bids will be received by Oscar Wenderoth, Superv. Arch., Washington, D. C., for the construction of the steerage barracks and storehouse for the U. S. quarantine station at Portland.

Post Office—Greenfield, Mass.—Bids were received for the construction of a post office at Greenfield, (a) limestone, (b) sandstone, as follows: Conners Bros. Co., New York, (a) $62,710, (b) $63,710; Daniel O'Connell Sons, Holyoke, Mass., (a) $85,278, (b) $88,124; Charles W. Wright, Lynn, Mass., (a) $73,939; James Miles & Son Co., Worcester, Mass., (a) $71,747, (b) $72,447; C. M. Leach, Boston, Mass., (a) $77,873, (b) $79,673; Sarubbi Building & Construction Co., Springfield, Mass., (a) $82,000, (b) $82,000; Louis P. Fluhrer Co., New York, (a) $67,500; Thomas W. Cissel, Wooster, Ohio, (a) $59,000, (b) $62,000; Westchester Engineering Co., White Plains, N. Y., (a) $59,661, (b) $63,000; W. H. Fissell & Co., New York, (a) $60,400, (b) $62,900; E. T. Abbott Construction Co., New York, (a) $66,500, (b) $68,300; Charles E. Currier Co., Boston, Mass., (a) $60,900, (b) $61,300; Damon & Boutwell, Fitchburg, Mass., (a) $84,270, (b) $85,195; H. L. Hemenway Co., Boston, Mass, (a) $64,973, (b) $65,973; Horton & Hemenway, Boston, Mass., (a) $64,688; Woodbury & Leighton, Boston, Mass, (a) $66,970. Noted Feb. 11.

Structural Steel—Newport, R. I.—The following are the bidders for furnishing and erecting 2,050,000 lb. of steel at the Newport torpedo factory, price being per lb.: Phœnix Bridge Co., 0.0234c.; Belmont Iron Works, 0.0244c.; Lewis Shoemaker & Co., 0.0249c.; McClintic-Marshall Co., 0.0253c.; Darling-Slade Construction Co., 0.0261c.; Milliken Bros., Inc., 0.0264c.; Riter-Conley Mfg. Co., 0.02725c.; New England Structural Steel Co., 0.0284c.; Pittsburgh-Des Moines Steel Co., 0.0295c.; American Bridge Co, 0.0305c.; Penn Steel Co., 0.0285c.

+Post Office—Danbury, Conn.—The contract for the construction of a post office at Danbury has been awarded to the CHARLES McCAUL CO., Philadelphia, Penn., at $61,900. Noted Sept. 24 and Nov. 12.

Earthwork—New London, Conn.—The following are the bids received for bank revetment on the Connecticut River: Frederick S. Wardwell, Stamford, Conn., $25,510; Daniel O'Connell's Sons, 480 Hampden St., Holyoke, Mass., $16,770; C. R. Simpson, 170 Broadway, New York, N. Y., $30,060; Pierson Engineering & Construction Co., Hartford, Conn., $26,300; A. C. Sternberg, West Hartford, Conn., $19,990; Ralph M. Brown, 62 William St., New York, $20,780; Estate of John Beattie, Leete Island, Conn., $17,100; Elmer H. Brown, Hempstead, N. Y., $32,300; Olsen & Klavens, 336 61st St., Brooklyn, N. Y., $16,090; E. S. Belden & Sons, 217 Laurel St., Hartford, Conn., $21,490. Noted Feb. 4.

★Dredging—Buffalo, N. Y.—Bids will be received until 11 a.m., Apr. 15, by Col. J. G. Warren, Federal Bldg., Buffalo, for dredging in Niagara River.

★Supplies—New York, N. Y.—(Governors Island)—Bids will be received until 11 a.m., Apr. 14, by the Department Quartermaster, for furnishing forage and straw (three months' and a year's supply) and fuel, gasoline, mineral oil, beef and mutton.

Steel Tanks—New York, N. Y.—The following are the bids received by Col. S. W. Roessler, Army Bldg., New York, for furnishing at the manufacturers plant, 20 steel tanks: Standard Gas Power Corporation $12,000; Theodore Smith & Sons Co., $9625; Franklin Machine & Steam Boiler Works, $9997; M. H. Treadwell Co., $8900; S. Freeman & Sons Mfg. Co., $7300; Lake Erie Boiler Works, $9600; Steacy Schmidt Mfg. Co., $7850; Turl Iron & Car Co., Inc., $8950; Robert S. Hall, Warren, Penn., $6520; James Loppon Mfg. Co., $8746; Ruemmli Dawley Mfg. Co., $7625; Cruse Temper Co., $8000; The Ohio Co., $9876; A. D. Granger Co., $8425; Coltesville Boiler Works, $9760; D. B. M. Dillon Boiler Works, $11,130; McAllenan Bros. Co., $7961; Standard Boiler Plate & Iron Co., $7600.

+★Cement—New York, N. Y.—The contract for furnishing and delivering 32,000 bbl. of American cement has been awarded to the ALPHA PORTLAND CEMENT CO., Easton, Penn. Noted Feb. 18 and Mar. 4.

+★Dredging—Portchester, N. Y.—The contract for dredging in Portchester Harbor has been awarded to JOHN H. SEELY, at 31c. per cu.yd., scow measurement. Noted Feb. 18 and Feb. 25.

Experiment Station—Pittsburgh, Penn.—Bids were received for the construction and mechanical equipment for the experiment station of the Bureau of Mines, Pittsburgh, as follows: Construction, (a) clearing site and necessary excavation; (b) construction proper: George B. Wills & Co., New York, (a) $43,000, (b) $257,922; Bothwell & Carson, Pittsburgh, (a) $47,000; John F. Casey Co., Pittsburgh, (a) $29,200; Irwin & Leighton, Philadelphia, Penn., (a) $38,400, (b) $264,400; Golden & Crick, Pittsburgh, (b) $315,205; George A. Fuller Co., New York, (a) $44,000, (b) $309,464; David T. Riffle, Pittsburgh, (a) $43,269, (b) $342,552; C. A. Riffle, Pittsburgh, (a) $27,242; James L. Stuart, Pittsburgh, (a) $38,000, (b) $330,400; Conners Bros. Co., Lowell, Mass., (a) $54,800, (b) $289,450, both $339,450; George Hogg Co., Pittsburgh, (a) $36,411, (b) $304,683; Henry Shenk Co., Pittsburgh, (a) $39,000, (b) $309,399; Thompson-Starrett Co., New York, (b) $317,000; Booth & Flinn, Ltd., Pittsburgh, (a) $43,884; Lathrop, Shea & Henwood Co., Scranton, (a) $59,300; W. G. Costin, Pittsburgh, (a) $37,800; For the mechanical equipment, bids were as follows: W. G. Cornell Co., Washington, D. C., $63,795; S. Faith & Co., Philadelphia, $71,773; Standard Engineering Co., Washington, D. C., $67,150; Thompson-Starrett Co., New York, $76,770; Chris Irving Plumbing & Heating Co., Denver, Colo., $78,656; John W. Danforth Co., Buffalo, N. Y., $72,847; Fitzpatrick & Hoepfner, Columbus, Ohio, $72,688; Hanley-Casey Mechanical Equipment Co., Chicago, Ill., $63,900.

+Bridge—Washington, D. C.—The contract for substituting a through span for deck span in the Penn. Ave. bridge across the Anacostia River, has been awarded to the PENN BRIDGE CO., Beaver Falls, Penn., at $6780. Noted Jan. 21 and Feb. 25.

+Cement—Washington, D. C.—The following contracts have been awarded by the U. S. Reclamation Service for furnishing cement at its various projects: COLORADO PORTLAND CEMENT CO., Denver, Colo., 1500 bbl., for Grand and Uncompahgre projects, Colo., at $1 per bbl.; INTERNATIONAL PORTLAND CEMENT CO., Spokane, Wash., 10,000 bbl. for use on Okanogan and Yakima Storage projects, Wash., and Umatilla project, Ore., at $1.18; LEHIGH PORTLAND CEMENT CO., Allentown, Penn., 6000 bbl. for Flathead project, Mont., and Sunnyside project, Wash., at $1; PACIFIC PORTLAND CEMENT CO., San Francisco, Calif., 1300 bbl. for Klamath and Orland projects, Calif., at $1.40; THREE FORKS PORTLAND CEMENT CO., Ogden, Utah, 11,000 bbl. for projects in Montana, at $1.20; UNION PORTLAND CEMENT CO., Ogden, Utah, 24,000 bbl. for Boise and Minidoka projects, Idaho, and Strawberry Valley project, Utah, at $1.10.

Heating System—Washington, D. C.—Bids were received Mar. 12 by the Commissioners of the District of Columbia for installing a heating and ventilating system in connection with the reconstruction of the Western High School, as follows: Monarch Ventilating Co., 30 Church St., New York, $17,625; Biggs Heating Co., 917 H St., N. W., Washington, D. C., $18,125; Detroit Heating Co., Detroit, Mich., $17,863; W. G. Cornell Co., Southern Bldg., Washington, D. C., $14,740. Noted Nov. 5 and Dec. 3.

Grading—Washington, D. C.—Bids were received for grading certain streets in the District, the work aggregating about 30,000 cu.yd., as follows: Chesapeake Construction Co., Chesapeake, Md., 35c.; Harper & Voight, 34¾c.; Warren F. Brenizer Co., 22c.; George Hyman, 39c.; William F. Cush, 58c.; R. P. Dendy, Norfolk, Va., 34½c.; G. B. Mullen Co., 27⅞c.; Edward G. Gummel, 34c.; F. B. Beasman, Baltimore, Md., 33c. Above bidders are of Washington unless otherwise specified. Noted Mar. 11.

Retaining Wall—Washington, D. C.—Bids were received for the construction of a retaining wall along the west (16th St.) side of the Meridian Hill Park between W and Euclid St., N. W., as follows: National Foundation & Engineering Co., Cleveland, Ohio, $24,100; Kennedy-Campbell Co., 2504 Irving St., $23,425; Fred Drew, Inc., Woodward Bldg., $24,795; W. H. McCray, Bond Bldg., $24,600; R. J. Beall Construction Co., 734 15th St., $23,649; Davis Construction Co., Union Trust Bldg., $32,757; Arthur L. Smith, Woodward Bldg., $29,672; Boyle-Robertson Construction Co., 1416 H St., N. W., $23,397. All of the above bidders are of Washington unless otherwise specified. Noted Feb. 11.

✚Building—Arlington, Va.—The contract for furnishing the marble for the Arlington memorial has been awarded to the VERMONT MARBLE CO., Proctor, Vt. The contract price is about $750,000. Noted Nov. 19, Dec. 24 and Feb. 18.

Garbage Incinerator—Norfolk, Va.—Bids will be received until Mar. 30 by the Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., for constructing a garbage incinerator at the Navy Yard, Norfolk.

★Dredging—Wilmington, N. C.—Bids have been received for dredging (a) Neuse River, (b) waterway, Pamlico Sound to Beaufort Inlet, (c) harbor at Beaufort. Prices are per cu.yd., as follows: Simons-Mayrant Co., Charleston, S. C., (a) 16.8c., (b) 16.8c., (c) 30c.; Coastwise Dredging Co., Norfolk, Va., (a) 13.9c., (b) 13.9c.; Norfolk Dredging Co., Norfolk, Va., 15.69c.; Ricards Dredging Co., Philadelphia, Penn., (a) 14.5c., (b) 10.5c., (c) 12.8c. Noted Feb. 11.

✚★Jetty Construction—Savannah, Ga.—The contract for placing stone in jetty at Savannah Harbor has been awarded to R. S. SALAS, Savannah, Ga., at $79,600. Noted Jan. 28.

★Stone—New Orleans, La.—Bids will be received until 11 a.m., Apr. 13, by Maj. Edward H. Schulz, U. S. Engineer Office, New Orleans, for furnishing and delivering about 10,000 cu.yd. of stone at South Pass and Southwest Pass, Mississippi River.

Earthwork—New Orleans, La.—Bids will be received until 11 a.m., Mar. 25, by Maj. W. G. Caples, U. S. Engineer Office, New Orleans, for constructing about 309,000 cu.yd. of earthwork in the Lower Tensas and Atchafalaya levee districts.

Post Office—Covington, Tenn.—The following are the bids received for the construction of the post office at Covington, (a) using limestone for all stonework, except where granite is required, (b) using sandstone for all stonework, except where granite is required: George W. Stiles Construction Co., Chicago, Ill., (a) $36,500; J. L. Crouse, Greensboro, N. C., (a) $37,990, (b) $38,490; Colonial Construction & Supply Co., Charlottesville, Va., (a) $38,279; Rogers & Kaiser, Chicago, Ill., (a) $38,422, (b) $39,500; Algernon Blair, Montgomery, Ala., (a) $38,472, (b) $40,000; Potter's Lumber Co., East Liverpool, Ohio, (a) $38,700, Newport Contracting & Engineering Co., Newport News, Va., (a) $39,193; R. S. Moore, LaFayette, Ind., (a) $39,554, (b) $40,444; W. H. Fissell & Co., New York, N. Y., (a) $39,990, (b) $40,990; V. E. Taylor, Huntington, W. Va., (a) $40,350; Mayben & Freuchtel, Gadsden, Ala., (a) $40,504, (b) $41,000; E. T. Abbott Construction Co., New York, N. Y. (a) $41,500, (b) $42,000; Thomas W. Cissel, Wooster, Ohio, (a) $41,760, (b) $42,850; George Hinchliff Co., Chicago, Ill., (a) $42,690. Noted Jan. 14.

★Steel Gates—Nashville, Tenn.—Bids will be received until 11 a.m., Apr. 12, by Maj. H. Burgess, U. S. Engineer Office, Nashville, for the construction and erection of steel gates for locks B and C, Cumberland River.

Post Office—Alliance, Ohio—Bids were received for the construction of a post office at Alliance, (a) limestone, (b) sandstone, as follows: Ohio Building & Construction Co., Cincinnati, Ohio, (a) $89,575, (b) $89,990; M. Yeager & Sons, Danville, Ill., (a) $90,969, (b) $91,769; R. S. Moore, LaFayette, Ind., (a) $85,575, (b) $86,349; John G. Unkefer & Co., Minerva, Ohio, (a) $89,525, (b) $90,275; J. G. Rogers Co., Moorestown, N. J., (a) $94,250, (b) $95,370; William H. Fissell, New York, (a) $84,900, (b) $86,500; Potter's Lumber Co., East Liverpool, Ohio, (a) $86,345, (b) $87,000; Torbert Construction Co., Hampton, Va., (a) $91,275, (b) $92,250; James Devault, Canton, Ohio, (a) $94,873, (b) $95,750; Charles W. Gindele Co., Chicago, Ill., (a) $84,000, (b) $84,600; James I. Barnes, Logansport, Ind., (a) $98,110, (b) $98,355; Thomas W. Cissel, Wooster, Ohio, (a) $93,968, (b) $94,742; E. T. Abbott Construction Co., New York, (a) $77,500, (b) $77,950; F. Schellenburg, Pittsburgh, Penn., (a) $82,000, (b) $83,000; J. L. Crouse, Greensboro, N. C., (a) $89,704, (b) $90,354. Noted Jan. 21.

✚★Towboats—Cincinnati, Ohio—The contract for constructing and delivering two steel hull sternwheel towboats has been awarded to the CHARLES BARNES CO., Cincinnati, Ohio, at $42,789. Noted Jan. 28 and Mar. 4.

Fuel Flats and Barge—Cincinnati, Ohio—The following are the bids received for constructing and delivering two steel fuel flats, Nos. 18 and 19 and one steel barge No. 15: Pittsburgh Des Moines Steel Co., Pittsburgh, Penn., (a) for two fuel flats, delivered at Cincinnati, $7743, (b) for one barge delivered at Cincinnati, $7509, (c) for two fuel flats delivered at bidders' yards, $7543, (d) for one barge, delivered at bidders' yards, $7309; Dubuque Boat & Boiler Works, Dubuque, Iowa, (a) $7142, (b) $7509, (c) $6902, (d) $6882; Milwaukee Bridge Co., Milwaukee, Wis., (a) $8997, (b) $8745; Charles Hegewald Co., New Albany, Ind., (a) $7899, (b) $7699, (c) $7799, (d) $7599; Hartman-Greiling Co., Green Bay, Wis., (a) $8185, (b) $8105, (c) $7685, (d) $7605; Rock Island Bridge & Iron Works, Rock Island, Ill., (a) $8450, (b) $8450, (c) $8250, (d) $8250; Edward J. Howard, Jeffersonville, Ind., (a) $7993, (b) $7349, (c) $7918, (d) $7274; American Bridge Co., Cincinnati, (a) $7850, (b) $7600, (c) $7600, (d) $7350. Noted Feb. 4.

✚Post Office—Tiffin, Ohio—The contract for the construction of a post office at Tiffin has been awarded to the COLONIAL CONSTRUCTION & SUPPLY CO., Charlottesville, Va., at $71,916. Noted Dec. 17 and Feb. 18.

Remodeling Post Office, Courthouse and Customhouse—Toledo, Ohio—Bids will be received until 3 p.m., Apr. 23, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the extension, remodeling, etc., of the post office, courthouse and customhouse at Toledo.

Fir Timber—Michigan—The following are the bids received for furnishing fir timber for river and harbor work at Ontonagon, Grand Marais and Keeweenaw Point, Mich.: Martin Bros., Duluth, Minn., $6262; Ward Lumber Co., Lynchburg, Va., $25,830; Corey Bros. Lumber Co., Superior, Wis., $6262; James Pryor & Son, Houghton, Mich., $6614; J. O. Nessen Lumber Co., Chicago, Ill., $6457; G. Elias & Bro., Inc., Buffalo, N. Y., $6575; Hoquiam Lumber & Shingle Co., Hoquiam, Wash., $7045; A. V. Holahan, Superior, Wis., $6457; Lord & Bushnell Co., Chicago, Ill., $7685; Mutual Lumber Co., Minneapolis, Minn., $7045; H. B. Waite Lumber Co., Minneapolis, $6184; Union Lumber Co., Union Mills, Wash., $6371; Henry D. Davis Lumber Co., Portland, Ore., $6262; White Star Lumber Co., Whites, Wash., $6347; Eatonville Lumber Co., Tacoma, Wash., $6575; Charles L. Spaulding Logging Co., Portland, Ore., $6449; Keystone Lumber Co., Minneapolis, Minn., $7045; Pacific States Lumber Co., Tacoma, Wash., $7427; Woodruff Lumber Co., Duluth, Minn., $6215; Pacific Fir Co., Seattle, Wash., $6849. Bids were opened by Maj. E. D. Peek, U. S. Engineer office, Duluth, Minn.

Post Office—Miles City, Mont.—The following are the bids received for constructing the post office at Miles City, (a) using limestone for all exterior stonework, except where granite is required, the building to be stone-faced design, (b) using sandstone for all exterior stonework, except where granite is required, the building to be stone-faced design, (c) using limestone for all exterior stonework, except where granite is required, the building to be of the brick-faced design with stone trimmings, (d) using sandstone for all exterior stonework, except where granite is required, the building to be of the brick faced design with stone trimmings; Hiram Lloyd Building & Construction Co., Odd Fellows Bldg., St. Louis, Mo., (a) $92,517, (b) $98,517, (c) $85,517, (d) $89,517; Gray Construction Co., Watertown, S. D., (a) $94,177, (b) $108,990, (c) $89,302, (d) $96,487; William O'Neill & Son Co., Faribault, Minn., (a) $94,785, (c) $92,285; Campbell Building Co., of Utah, Salt Lake City, Utah, (a) $96,938, (b) $107,000, (c) $93,000, (d) $97,00; John Lauritzen, Fergus Falls, Minn., (a) $96,990, (c) $91,990, Frank L. Johnson & Co., Duluth, Minn., (a) $97,046, (b) $103,946, (c) $93,096, (d) $95,496; Olson & Johnson Co., Missoula, Mont., (a) $99,285, (b) $103,885, (c) $94,650, (d) $97,800; Sound Construction & Engineering Co., Seattle, Wash., (a) $100,193, (b) $101,693, (c) $93,548, (d) $94,548; J. H. Wiese, Omaha, Neb., (a) $107,730, (c) $103,500; Liegland, Kleppe & Co., (a) $111,970, (b) $119,470, (c) $105,850, (d) $109,850; Bailey-Marsh Co., Minneapolis, Minn., (a) $112,896, (c) $108,196; J. W. Miller, St. Paul, Minn., (a) $116,724, (b) $129,924, (c) $111,954. Noted Jan. 7.

✚Remodeling Building—St. Louis, Mo.—The contract for the construction of an extension to the custom house at St. Louis, Mo., has been awarded to the WHARTON BUILDING & SUPPLY CO., St. Louis, Mo. Noted Dec. 17 and Jan. 28.

Post Office and Court House—Lawton, Okla.—Bids were received for the construction of a post office and court house at Lawton, (a) light-colored limestone, (b) light-colored sandstone, (c) Oklahoma limestone, as follows: Thomas W. Cissel, Wooster, Ohio, (a) $132,497, (b) $140,000; R. S. Moore, LaFayette, Ind., (a) $121,946; Hiram Lloyd Bldg. & Construction Co., St. Louis, Mo., (a) $129,917, (b) $133,917, (c) $131,917; M. Yeager & Sons, Danville, Ill., (a) $123,835, (b) $128,335, (c) $125,971; King Lumber Co., Charlottesville, Va., (a) $149,300, (b) $139,100, (c) $179,700; Campbell Building Co., Salt Lake City, Utah, (a) $120,500, (b) $134,000; George A. Shaul, Seneca Falls, Kan., (a) $129,352; Kreipke-Schafer Construction Co., El Reno, Okla., (a) $152,219; Volney T. Taylor, Huntington, W. Va., (a) $147,000, (b) $155,000; Dieter & Wenzel Construction Co., Wichita, Kan., (a) $124,727; W D. Lovell, Minneapolis, Minn., (a) $130,000; William O'Neill & Son Co., Faribault, Minn., (a) $123,340; R. P. Farnsworth & Co., Owensboro, Ky., (a) $153,000. Noted Jan. 7.

✚Canal Work—Payson, Utah—The contract for the construction of Schedule 4 of the Highline Canal, Strawberry Valley project, Utah, has been awarded to the REYNOLDS-ELY CONSTRUCTION CO., Springville, Utah. The work consists of approximately 155,000 cu.yd. of excavation for canals, 26,000 cu.yd. of excavation for structures, 1250 cu.yd. of reinforced concrete, 467,000 sq.ft. of concrete canal lining and other miscellaneous items. Noted Jan. 28.

✚Excavation, Etc.—Payson, Utah—The contract for construction, involving 158,000 yd. of excavation, 7000 yd. of concrete and other items has been awarded to the REYNOLDS-ELY CONSTRUCTION CO., Springville, Utah, at $82,625. Noted Jan. 7 and Feb. 18.

Canal Work—Payson, Utah—Bids will be received until 2 p.m., Apr. 8, by the U. S. Reclamation Service, Provo, Utah, for canal work involving about 8000 yd. of excavation and 1350 yd. of concrete. The work is located near Payson on the San Pedro, Los Angeles & Salt Lake R.R. and the Tintic branch of the Denver & Rio Grande R.R. H. P. Davis is Ch. Engr.

Slide Gates—Glendale, Ariz.—The following bids were received by the U. S. Reclamation Service, Los Angeles, Calif., for furnishing bronze slide gates, Salt River project; Pelton Water Wheel Co., San Francisco, Calif., $6660, at San Francisco Calif.; Llewellyn Iron Works, Los Angeles, Calif., $6950, Los Angeles; Fulton Engine Works, San Francisco, $6957, Los Angeles; Joshua Henry Iron Works, San Francisco, $8212, Sunnyside, Calif.

✚Cofferdam—Seattle, Wash.—The contract for excavating and removing an existing cofferdam and constructing a new cofferdam at the Puget Sound-Lake Washington lock site, has been awarded to the ERICKSON CONSTRUCTION CO., Seattle, Wash., at $56,777. Noted Jan. 28.

✚Wireless Towers—San Diego, Calif.—Contracts have been awarded for the construction of wireless towers, three each at San Diego, Calif., Pearl Harbor, Hawaii and Cavite, P. I., as follows: San Diego, Calif., LLEWELLYN IRON WORKS, Los Angeles, Calif., at 4.85c. per lb. and at Pearl Harbor, Hawaii, at 5.15c. per lb.; Cavite, P. I.: CHICAGO BRIDGE & IRON CO. and PITTSBURGH-DES MOINES STEEL CO., Pittsburgh, Penn., at 5.7c. The towers are to be each 600 ft. high and will weigh 300 tons. Noted Mar. 4.

Miscellaneous Supplies—Panama—Bids will be received by Maj. F. C. Boggs, Gen. Pur. Officer of the Panama Canal, Washington, D. C. until Mar. 30 for furnishing steel reinforcing bars, steel cable, chain, poultry netting, coupler knuckle pins, machine bolts, pipe fittings, copper sheathing, shovels, track chisels, hasps and staples, hinges, engine lubricators, starting compensator for motor, grease cups, basin traps, valves, cocks, paintbrushes, flax packing, doormats, chair seats, water coolers, chinaware, agate pitchers, teaspoons, cardboard, paper, sulphate of copper, gasoline, and lard oil. Delivery is to be made on dock either at Colon or Port of Ancon.

Foundations—Cavite, P. I.—The only bid received at the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of foundations of the wireless towers at Cavite was that of Henry Monk, Pensacola, Fla., at $26,640. Noted Jan. 28.

✚Water Supply Pipe Line—Honolulu, H. T.—The contract for installing a water supply pipe line at Honolulu has been awarded to the HAM-YOUNG CO., Honolulu, at $4895.

MISCELLANEOUS

✚Fire Station—Hopedale, Mass.—The contract for the construction of the proposed fire station has been awarded to WALTER L. MELLEN, Worcester, at about $50,000.

Seawall—Bridgeport, Conn.—The Board of Park Commissioners has decided to construct 450 additional ft. of seawall at Seaside Park this spring. The Board of Apportionment has allowed the Commissioners $15,000 for the work.

River Improvement—Buffalo, N. Y.—The Board of Aldermen has voted $130,000 in bonds to be issued for river improvement. Noted Dec. 10.

Dock—Dunkirk, N. Y.—Bids will be received about Apr. 15 for the purchase of bonds, the proceeds of which will be used in constructing the proposed municipal dock. The plans have already been prepared and the government has made an appropriation of $90,000 for harbor improvements contingent upon its construction. The estimated cost is $100,000. W. H. Shelton is City Engr. Noted Sept. 10, Nov. 5.

Creek Improvement—New York, N. Y.—(Borough of Queens)—The Board of Aldermen has approved an appropriation of $28,294 for the construction of a covering for Beaver Creek where it passes through the South Jamaica section. Originally $120,000 was asked to clean Beaver Pond as well as the creek but this amount was deemed excessive at this time.

✚Pier—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for the construction of a pier at 46th St. and North River has been awarded by the Department of Docks and Ferries to the HOLBROOK, CABOT & ROLLINS CORPORATION, 331 Madison Ave., at $244,449.

Ladder Dredge and Pumps—New York, N. Y.—(Official)—The Eastern Gravel Corporation, 111 Broadway, will build a ladder dredge. This company also wishes to rent or purchase a dredge for temporary use. Catalogs and price lists are desired from manufacturers of pumps, boilers and screening apparatus, suitable for installation on its ladder dredge.

Motor Trucks—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., Mar. 24, by William Williams, Supt. Water Supply, Gas and Electricity, Municipal Bldg., for furnishing and delivering nine 1½-ton motor trucks with bodies and other appurtenances complete.

★Animal Building—New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until 11:30 a.m., Mar. 31, by Joseph J. O'Connell, M. D., Health Officer of the Port of New York, at Quarantine Station, Rosebank, for the construction of an animal building. For details see advertisement under "Contracts To Be Let."

Fire Station—Syracuse. N. Y.—Plans have been revised and bids will be received until Mar. 23 for the construction of a two-story, 40x114-ft. fire station. The estimated cost is $16,000. J. A. Randall is City Arch.

Fire Station—White Plains, N. Y.—The village of White Plains plans the construction of a two-story fire station. The estimated cost is $12,000. F. H. Brown, First National Bank Bldg., is Arch.

Pier—Bayonne, N. J.—The city is considering the construction of a recreation pier at 25th St. and Newark Bay. Edward Nelson, Councilman, is interested.

★Seawall, Jetty and Bulkhead—Bradley Beach, N. J.—(Official)—Bids will be received until 8 p.m., Mar. 22, by the Council Chamber, Main St., for the construction of 66 lin.ft. of either reinforced-concrete or creosoted timber seawall; 140 lin.ft. of creosoted or plain timber jetty and bulkhead; about 800 lin.ft. w.-i. outlet pipe with special fittings laid into the ocean from sewage tank. For details see advertisement under "Contracts To Be Let."

★Repairs and Additions to Beach Protection—Cape May, N. J.—(Official)—The city of Cape May will receive bids until 8 p.m., Mar. 22, at the Council Chamber, for the renewal, repair and additions to the boardwalk, beach drive, bulkhead and additional protection to the beach front. For details see advertisement under "Contracts To Be Let."

Elimination of Grade Crossing—Elizabeth, N. J.—The Public Utility Commissioners plan to eliminate 24 grade crossings of the Central R.R. of New Jersey in the city of Elizabeth.

Package Elevators—Philadelphia, Penn.—The lowest bid received by the Department of Wharves, Docks & Ferries for the installation of package platform elevators at Piers 38 and 40, South Delaware wharves, was that of the Link Belt Co., Nicetown, at $15,250. The lowest bid for elevators for Southwark Piers was that of the Abre-Clem Elevator Co., at $12,630.

Subway—Philadelphia, Penn.—The bill providing for an election Apr. 29 to vote on a loan of $6,000,000 for subway work has been signed by the Mayor. Noted Mar. 11.

Mausoleum—Reading, Penn.—The Pennsylvania Mausoleum Co., Berks County Trust Bldg., Reading, will receive bids about June 1 for the construction of a one-story, 60x110-ft. mausoleum in Memorial Park. The estimated cost is $100,000. U. J. Smith is Gen. Mgr. D. M. Rothenburg, Lancaster, is Arch.

Retaining Wall—Wilkes-Barre, Penn.—The City Engineering Department is preparing plans for a retaining wall to be constructed along both banks of Solomon's Creek between South Franklin and Vulcan St.

Levee—Augusta, Ga.—The River and Canal Commission has authorized Nisbit Wingfield, City Engr., to prepare plans at once for the construction of that portion of the proposed levee work between the Charleston & West Carolina Ry. and Sands Bar Ferry. Noted Dec. 10.

Wharves—Jacksonville, Fla.—Local press reports state that bids will be received until Mar. 22 by the Board of Port Commissioners for the construction of timber marginal wharves at the Municipal Terminal Docks. About 110,000 sq.ft. of work will be necessary. The appropriation available is $25,000. Noted Dec. 24.

✚Ditch—Westover, La.—The Bayou Nolan Drainage District has awarded the contract for the construction of drainage ditches, about 135,000 cu.yd. of earth removal, to G. A. McWILLIAMS, Chicago.

✚Drainage—White Castle, La.—The White Castle Drainage District has awarded the contract for the construction of the proposed drainage canal to W. H. LAWS, Plaquemine. A bond issue of $60,000 has been voted for the work.

Drainage—Dresden, Tenn.—Middle Fork and Spring Creek Drainage District, G. T. Mayo, Chn., will receive bids until Apr. 8 for the construction of a drainage system. The following work will be necessary: Contract No. 1,364,700 cu.yd. of levee embankment in north levee, floating dredge work: Contract No. 2,543,550 cu.yd. excavation in Spring Creek ditch, 270,615 cu.yd. embankment in south levee and 41,300 cu.yd. embankment in back water levee No. 2, all with floating dredge; Contract No. 3, clearing about 500 acres floodway between levees. Morgan Engineering Co., Memphis, Tenn. prepared the plans.

✚Drainage—Owensboro, Ky.—The contract for the construction of five miles of ditches, about 116,000 cu.yd. of earth removal, has been awarded to J. N. FORGY, at about $12,500.

Creosoted Wood Block Floor—Canton, Ohio—(Official)—Bids will be received until noon, Mar. 24, by R. J. Kunkel, Dir. Pub. Safety, City Hall, for furnishing and laying a creosoted wood block floor in the Central Engine House.

Comfort Stations—Cleveland, Ohio—The city plans to issue bonds to the extent of $1,000,000 for the erection of comfort stations. If the City Council approves the recommendation of the special committee the proposition will be submitted to the voters at the November election.

Elimination of Grade Crossings—Cleveland, Ohio—The Council has approved the plan to advance the city's share of the cost in eliminating grade crossings between Fulton Rd., and Detroit Ave. along the tracks of the New York, Chicago & St. Louis Ry. Work is expected to be begun about Apr. 15. The cost, $2,900,000, is to be borne by the railroad and the city at the ratio of 65% and 35%.

Dancing Pavilion—Cleveland, Ohio—Fred H. Betz, City Arch., 420 City Hall, is preparing preliminary plans for a one-story dancing pavilion to be constructed in Washington Park. The estimated cost is $20,000.

Ditch—Defiance, Ohio—W. T. Wisda, Engr., is preparing plans for the construction of 25 miles of open ditches, for which bids will soon be received. Separate bids will also be received for the construction of a dredge ditch. The estimated cost is $50,000.

Road Graders—Brownstown, Ind.—(Official)—Bids will be received until 2 p.m., Apr. 5, by the Commissioners of Jackson County for furnishing six medium weight road graders. Albert Leudtke is County Audr.

Flood Protection—Indianapolis, Ind.—The city will receive bids on Apr. 23 for flood protection work along the west bank of White River. Plans have been prepared and adopted by the Board of Public Works. The work will include the construction of levees 75 ft. wide. J. T. Jeup, City Engr., states that plans are nearing completion for a levee and street on the east side of White River. The estimated cost of all contemplated protection work is $750,000.

Stone Crusher and Equipment—Salem, Ind.—(Official)—Bids will be received until 1:30 p.m., Mar. 29, by the Commissioners of Washington County for furnishing one mounted stone crusher with elevator and straight chute screen complete. Ira H. Rutherford is County Audr.

✚Drain—Walkerville, Mich.—The contract for the construction of the Beaver Drain, involving 230,000 cu.yd. of earth removal, has been awarded to HUGH WOOLMAN, Sandusky, Mich., at $13,000. O. A. Rhodes is County Drain Comr. Noted Feb. 25.

Park Improvements—Chicago, Ill.—The South Park Commissioners, 57th St. and Cottage Grove Ave., will receive bids about Mar. 24 for the construction of formal gardens, ornamental concrete towers, columns, fountains, terraces and balustrades.

Recreation Pier—Chicago, Ill.—Plans are nearing completion for a two-story, 240x600-ft. recreation pier to be constructed at the foot of Grand Ave. for the city. The estimated cost is $150,000. Charles S. Frost, 105 South La Salle St., is Arch. E. C. Shankland, 139 North Clark St., is Chn. of the Com.

Fire Station—Chicago, Ill.—The city plans to construct a two-story fire station at 2322 Foster Ave. The estimated cost is $18,000. C. W. Kallal is Arch.

✚Grading—Chicago, Ill.—(Official)—The Pennsylvania R.R. has awarded a contract for grading its property between 12th and Polk St., west of the Chicago River, to P. T. CLIFFORD & SON, Valparaiso, Ind. This is the first contract awarded in connection with the terminal improvements at this point.

Pumping Station—Oquawka, Ill.—Bids will be received until Mar. 20 by County Drainage District No. 3 for the construction of an oil or gas-driven pumping station. The plant will include two duplicate unit pumps having a combined capacity of not less than 16,000 gal. per min. against a maximum static head of 16 ft.

★✚Pumping Station—Quincy, Ill.—The South Quincy Drainage and Levee District has awarded the contract for the construction of an electric pumping station to the FARRAR PUMP & MACHINERY CO., St. Louis, Mo., at $23,040. Noted Jan. 14.

Motor Fire Apparatus—Independence, Kan.—(Official)—George E. Weaver, City Engr., advises us that the fire department expects to be equipped soon with motor fire apparatus.

★✚Drainage—Edina, Mo.—The Supervisors of the Fabius River Drainage District have awarded the contract for the construction of channels, 500,000 cu.yd. of excavation, for District No. 3 to H. K. JOHNSON, Kahoka, Mo., at 5.3c. per cu.yd. The Harmon Engineering Co., Peoria, Ill., prepared the plans. Noted Feb. 1.

Drainage—Osceola, Ark.—The Commissioners of Grassy Lake and Tyronza Drainage District No. 9 will receive bids until Mar. 24 for the construction of 21,600 cu.yd. of levee embankment near Marked Tree; 6700 cu.yd. levee embankment and 9000 cu.yd. of ditches, about 13 miles southwest of Blytheville; 7300 cu.yd. ditches and installation of 62 ft. 12-in. sewer pipe, 50 ft. 18-in. sewer pipe and 198 ft. 24-in. sewer pipe, with concrete bulkheads amounting to 20 cu.yd. at Osceola; furnishing steel for or erecting complete, on concrete abutments, 5 steel bridges. The Magan Engineering Co., Memphis, Tenn., prepared the plans. S. E. Simonson is Chn.

✚Drainage—Bay City, Tex.—County Drainage District No. 5 has awarded the contract for the construction of 225,246 cu.yd. of open ditches to J. P. ARPIN DREDGING CO., Houston, at $41,129. E. N. Gustafson is Engr. Noted Jan. 28.

Fire Stations—Ft. Worth, Tex.—The City Commission has acted favorably on the recommendation of the erection of two fire stations. The first will be located at 16th St. and Homan Ave., the other at North and Penn St. The estimated cost is $32,000.

✚Wharf and Warehouse—Houston, Tex.—The contract for the construction of the wharf and warehouse, the first unit of the harbor improvement plan, has been awarded to HORTON & HORTON, Houston, at $218,840. Bids were received for this work on Oct. 28, but because of lack of an appropriate site, the award has been held up. Noted Sept. 17, Oct. 8 and Nov. 12.

Dock—Hoquiam, Wash.—Bids will probably be received the latter part of March for the construction of the proposed dock. It will be 150x1250 ft. The estimated cost is $75,000. E. G. Hunt, Aberdeen, is Engr. Noted Mar. 4.

Dikes—South Bend, Wash.—The Board of Commissioners, Diking District No. 2, Pacific County, will receive bids until Mar. 30 for the construction of a system of dikes. Plans are on file at the office of H. A. Bibbs, Engr. of the Dist.

✚Oil Tanks—Portland, Ore.—The Shell Oil Co., of California has awarded the contract for the construction of four oil storage tanks to the WILLAMETTE IRON & STEEL WORKS, at about $60,000.

Jetty—Suislaw, Ore.—Bids will soon be received for the construction of the proposed jetty for the Port of Suislaw. The estimated cost is $250,000. Bonds have been sold and the money will be available by Apr. 1.

✚Oil Tanks—Martinez, Calif.—The Shell Oil Co. has awarded a contract for the construction of thirty oil tanks to the LACEY MFG. CO., of Los Angeles, at $78,000.

Canal and Tunnels—Springville, Calif.—See item under "Light, Heat and Power."

Wharf Reconstruction—Halifax, N. S.—The Furness Withy Co., Halifax, plans to rebuild its wharf at an estimated cost of $75,000.

Salt Water Baths—Vancouver, B. C.—Bids will be received by Emil Guenther, Arch., Northwest Trust Bldg., Vancouver, for the construction of a salt water bath at English Bay for the Vancouver Salt Water Baths. Work will be of reinforced-concrete, brick and marble. The estimated cost is $75,000.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

✚Athol, Mass.—The contract for the construction of two wings for the high school at Athol has been awarded to LELAND B. TAYLOR. Estimated cost, $55,000. Noted Feb. 4.

Boston, Mass.—Plans have been prepared by Clarence H. Blackwell, Arch., for the construction of a six-story, 23x95-ft. mercantile and office building at 364 Washington St. The estimated cost is $315,000.

Boston, Mass.—Plans are being prepared by Wells & Dana, Arch., 29 Central St., for the construction of an addition and alterations to the Parental School of the City of Boston. The estimated cost is $225,000.

Jamaica Plain, Mass.—(Boston post office)—Plans are being prepared by E. T. P. Graham, Arch., 20 Beacon St., Boston, for the construction of a chapel, industrial school and power house at South Huntington Ave. for the Brothers of Charity. The estimated cost is $100,000.

✚Malden, Mass.—The contract for rebuilding the First Baptist Church recently destroyed by fire has been awarded to RENTON WHIDDEN, 70 Devonshire St., Boston. Estimated cost, $80,000.

Springfield, Mass.—A permit has been granted for the construction of a four-story, 59x116-ft. building at 236 North Main St. for Joseph B. Lupien. The estimated cost is $50,000.

✚Worcester, Mass.—The contract for the construction of a two-story gymnasium at Penn Ave. and Dorchester St. for the Worcester Polytechnic Institute has been awarded to the EDWARD F. MINER BUILDING CO., 25 Foster St., Worcester. Estimated cost, $100,000. Noted Nov. 19, Dec. 10 and Jan. 7.

✚New London, Conn.—The First Baptist Society has awarded the general contract to H. R. DOUGLAS, INC., 73 Jefferson Ave., for the construction of a four-story parish house at State and Washington St. Noted Feb. 4.

Waterbury, Conn.—George W. Kramer & Son, 1 Madison Ave., New York, N. Y., has prepared plans for the construction of an 83x113-ft. building at Grove St. and Central Ave. for the First Baptist Society. Loren R. Carter, 11 East Main St., is Chn. of Bldg. Comn.

Beacon, N. Y.—(Official)—Homer H. Stuart, Pres. of Bd. of Education, informs us that contracts for the construction of a two-story high school, will be awarded about Apr. 1. Noted Jan. 14 and Feb. 18.

Edgewood, N. Y.—Plans are being prepared by Cohn Bros., 361 Stone Ave., Brooklyn, N. Y., for the construction of a four-story, 75x100-ft. apartment house for Oscar Palmleaf, 842 Flatbush Ave. Estimated cost, $45,000.

Lake Placid, N. Y.—The Bank of Lake Placid plans to construct a building on Main St. Estimated cost, $40,000. George A. Stevens is Pres.

New York, N. Y.—(Borough of Bronx)—Bids are being received by Heidelberg & Levy, Arch., 12 West 31st St., New York, for the construction of a three-story, 100x200-ft. market at 149th St. and Courtlandt Ave. for Samuel E. Jacobs, care of the Hudson Realty Co., 30 East 42d St.

New York, N. Y.—(Borough of Bronx)—M. W. Del Gaudio, 401 East Tremont Ave., is preparing plans for the construction of a five-story, 40x88-ft. apartment house on Fordham Rd. near Cambrelling Ave. for the Terrace Construction Co. Estimated cost, $40,000.

✚New York, N. Y.—(Borough of Brooklyn)—The contract for rebuilding St. Luke's Protestant Episcopal Church on Clinton Ave. between Fulton St. and Atlantic Ave. has been awarded to HENRY J. BROWN & SON, 257 Jefferson Ave. Dodge & Morrison, 135 Front St., New York, is Arch.

New York, N. Y.—(Borough of Brooklyn)—Plans have been passed upon for the construction of several ten-story concrete loft buildings from 84 Broadway to Wythe Ave., Williamsburg. The cost will be between $500,000 and $600,000. The manufacturers-Citizens Trust Co., 84 Broadway, Brooklyn, is interested.

New York, N. Y.—(Borough of Brooklyn)—Hyman Horowitz has purchased a site on Fifth Ave. between 43d and 44th St. for the construction of a 100x200-ft. motion picture theater. The estimated cost is $100,000.

New York, N. Y.—(Borough of Brooklyn)—Shampan & Shampan, Arch., 772 Broadway, Brooklyn, has prepared plans for the construction of a five-story, 87x100-ft. apartment house at Ross St. near Bedford Ave. for I. Haft. The estimated cost is $83,000.

✚New York, N. Y.—(Borough of Brooklyn)—The contract for the construction of the two-story, 76x193-ft. building at Sterling Pl. and Brooklyn Ave. for the St. Gregory's Church has been awarded to PETER CLEARY, 115 Marion St. The estimated cost is $90,000.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by Hopkins & McEntee, Arch., 37 East 28th St., New York, for the construction of a building at Bushwick Ave. between Cooper and Moffat St. for the St. Thomas Episcopal Church, Bushwick Ave. The estimated cost is $40,000.

✚New York, N. Y.—(Borough of Manhattan)—The contract for the construction of a nine-story apartment house for the 149 East 40th St. Corporation has been awarded to BING & BING, 119 West 40th St. The estimated cost is $150,000. Robert E. Moss, 126 Liberty St., is Structural Engr.

New York, N. Y.—(Borough of Manhattan)—James C. Green, 2 Columbus Circle, has prepared plans for the construction of a 12-story store and office building at 1562 Broadway, near 47th St., for George B. Burnett, Hotel St. Denis, Broadway and 11th St. Estimated cost, $65,000. Noted Mar. 4.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Donn Barber, Arch., 101 Park Ave., for the construction of a ten-story, 100x100-ft. building at Lexington Ave. and East 53d St., for the Central Branch of the Y. W. C. A. The estimated cost is $600,000. F. A. Burdett & Co., 16 East 33d St., is Engr.

New York, N. Y.—(Borough of Manhattan)—The Finch School for Girls, 61 East 77th St., will construct an addition to its building at 52 East 78th St.

New York, N. Y.—(Borough of Queens)—Bids will be received about Mar. 20 by Edward Hahn, Arch., Bridge Plaza, Long Island City, for the construction of a one-story, 90x100-ft. theater at Steinway and Jamaica Ave., Long Island City, for the Reliable Building Co., 1404 Second Ave., New York. Estimated cost, $50,000.

New York, N. Y.—(Borough of Queens)—(Official)—The bids received by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., New York, for the construction of P. S. No. 41 on Crocheron and Franklin Ave., Bayside, were as follows: M. Farrell, $88,000; T. A. Clarke Co., 122 Livingston St., Brooklyn, $86,300; H. C. Stowe Construction Co., 221 Greenpoint Ave., Brooklyn, $91,250; Frank J. Felgenhauer Co., Inc., 4 Court Sq., Brooklyn, $81,879; W. D. Moore, $84,990; James MacArthur Co., 22 Ormond Pl., Brooklyn, $92,262; J. Kressi, $88,850. Noted Mar. 4.

Rochester, N. Y.—Bids will be received until noon, Mar. 26, by the Board of Education, Municipal Bldg., Fitzhugh St., for the construction of a two-story, 64x120-ft. addition to the Whitney School No. 17 on Orange and Saxton St. Edwin S. Gordon is Arch. and J. S. Mullan is Secy. of Bd. of Education Estimated cost, $60,000.

Rome, N. Y.—The lowest bid received for the construction of a dormitory at the Rome State Custodial Asylum was submitted by the J. F. Growe Construction Co., Albany, at $94,575. R. T. Ford Co., 206 South Ave., Rochester at $18,767 submitted the lowest bid for the heating work.

Utica, N. Y.—Preliminary plans are being prepared by Gouge & Ames, Arch., 70 Genesee St., for the construction of a grade school. The estimated cost is $140,000. Noted Feb. 4.

Utica, N. Y.—Plans are being prepared by F. F. Barnett Co., Arch., Central National Bank Bldg., St. Louis, Mo., for the construction of a three-story building for St. Elizabeth's Hospital. Estimated cost, $200,000. Matthew A. Carton Abbiston is Chn. of Bldg. Com.

West Haverstraw, N. Y.—(Official)—Bids received Mar. 4 by George Blagden, Pres. of Bd. of Mgrs., New York State Hospital for Crippled and Deformed Children, exceeded the appropriation for the construction of a building. New bids will soon be received. Noted Feb. 11.

Asbury Park, N. J.—Contracts will be awarded about Apr. 1 by Leon Cubberley, Arch., Record Bldg., Long Branch, for the construction of a theater for the Butcher Amusement Co. Estimated cost, $70,000. Noted Mar. 11.

Atlantic City, N. J.—Plans are being prepared by William S. Hewitt, Arch., Bartlett Bldg., for the construction of a three-story building for the Ocean View Co., 271 South Connecticut Ave. Estimated cost, $40,000.

Bayonne, N. J.—Bids will soon be received for the construction of a parental home for the Hudson County Parental Home, Jersey City, N. J. Estimated cost, $40,000.

Camden, N. J.—Press reports state that the Philadelphia & Reading Ry. will rebuild its terminal destroyed by fire last January. The estimated cost is $1,000,000 and construction will begin early in 1916. William Hunter, Philadelphia, Penn., is Ch. Engr.

Camden, N. J.—The City Council has been petitioned by the Board of Estimate to call an election for the issuing of $412,000 in bonds. The proceeds will be used for the construction of a high school on Haddon Ave. Noted Dec. 17.

Harrison, N. J.—Plans are being prepared for the construction of a school at Jersey and South Fourth St. for the Church of the Holy Cross. George L. Fitzpatrick is Rector.

+Hoboken, N. J.—MARTIN FARRELL & SON, 1108 Warden St., has been awarded the general contract for the construction of a three-story, 78x78-ft. convent on Clinton St. for the Lady of Grace Church, 400 Willow Ave. Estimated cost, $65,000.

Irvington, N. J.—The city has sold bonds for $80,000, the proceeds to be used for the construction of a school at Irvington.

Jersey City, N. J.—Bids will soon be received by the Board of Chosen Freeholders of Hudson County for the construction of a county jail at Newark Ave. and Willow Court. The estimated cost is $1,000,000, and construction will probably begin about May 1. John T. Rowland, Jr., 98 Sip Ave., is Arch. Noted Dec. 17.

+Jersey City, N. J.—The Zerman Realty & Construction Co. has awarded the contract for the construction of a four-story apartment house on Glenwood Ave. to SAMUEL ZERMAN. Noted Feb. 11.

Jersey City, N. J.—Plans have been prepared by Nathan Welitoff, Arch., 222 Washington St., Newark, for the construction of a five-story, 50x80-ft. apartment house at 121 Garrison Ave. for Mrs. Rose Bergoff. Estimated cost, $50,000.

Jersey City, N. J.—It is reported that the Jersey City Grocers' Association, Colt Bldg., will construct a five-story, concrete building on Merseles St

Jersey City, N. J.—The Carteret Club, Bergen Ave., plans to enlarge its building.

Kearney, N. J.—(Arlington post office)—Preliminary plans are being prepared by Joseph Kennedy, 10 North Fourth St., Harrison, for the construction of a one-story, 62x140-ft. building at Hoyt St. and Kearney Ave., for St. Cecelia's Church. Estimated cost, $45,000.

Montclair, N. J.—Plans are being prepared by Holmes & Winslow, 103 Park Ave., New York, N. Y., for the construction of a one-story, 29x80-ft. building at 493 Bloomfield Ave. for the Essex National Bank. Estimated cost, $45,000. William Grant is Pres. of the bank.

Montclair, N. J.—The Claremont Co. plans to construct a three-story apartment house on Claremont Ave., near Highland Ave. Estimated cost, $45,000.

Newark, N. J.—The State Senate has passed a bill providing for the construction of a memorial building in connection with the 250th anniversary—in 1916—of the city's founding. The estimated cost is $2,000,000. Franklin Murphy, is Chn. of Bldg. Comn.

Newark, N. J.—Plans are being prepared by Edward V. Warren, Arch., 22 Clinton St., for making alterations and remodeling the Family Theater at Washington and Marshall St. Estimated cost, $40,000.

New Brunswick, N. J.—Bids will be received until 8 p.m., Apr. 6, by the Board of Education for the construction of a high school. Noted Dec. 3 and Jan. 28.

Princeton, N. J.—The Directors of Princeton University plan to construct a dormitory building between the Art Museum and Dodd Hall. The estimated cost is $220,000. John G. Hibben is Pres.

+Trenton, N. J.—METZGER & FIELD, 47th and Spruce St., Philadelphia, Penn., has been awarded the contract for the construction of a three-story, 34x250-ft. addition for the House of Detention for Convict and Criminal Insane at the State Hospital. The estimated cost is $50,000. Noted Feb. 18.

West Orange, N. J.—Preliminary plans are being prepared for the construction of a two-story store and apartment building at Valley Rd. and Washington St. Estimated cost, $40,000.

Woodbury, N. J.—Bids will soon be received by Charles R. Peddle, Arch., for the construction of a two-story, 23x88-ft. bank building for the Woodbury Trust Co. The estimated cost is $45,000.

+Allentown, Penn.—The contract for the construction of a building for the Second National Bank has been awarded to GEORGE H. HARDNER. Estimated cost, $70,000.

+Allentown, Penn. — The OCHS CONSTRUCTION CO., at $41,434, was awarded the contract for the construction of a building at 15th and Walnut St. for the St. James Reformed Church.

Carbondale, Penn.—Contracts will be awarded about May 1 by E. H. Davis, Arch., Connell Bldg., Scranton, for the construction of a four-story high school for the Carbondale School District. The estimated cost is $200,000. Noted Dec. 31 and Jan. 14.

+Conshohocken, Penn.—The contract for the construction of a one-story, 56x138-ft. building for St. Matthew's Church has been awarded to WILLIAM R. DOUGHERTY. Estimated cost, $100,000.

Dickson City, Penn.—An election will be held Mar. 30 to vote on the issuing of $75,000 in bonds for the construction of a school in the First Ward.

+Easton, Penn.—R. T. & C. D. STEWART CONSTRUCTION CO. has been awarded the contract for the construction of a seven-story building for William Laubach & Sons, Inc.

Meadville, Penn.—Plans are being prepared by Harry D. Whitfield, New York, N. Y., for the construction of Carnegie Hall of Chemistry at Allegheny College. Estimated cost, $40,000.

Myerstown, Penn.—Plans are being prepared by A. A. Richter, Arch., Reading, for the construction of a three-story, 75x150-ft. building for the Albright College. The estimated cost is $90,000.

+Philadelphia, Penn.—The contract for the construction of an addition to the Sharswood School has been awarded to P. J. HURLEY, 1233 Cherry St., at $98,900.

Philadelphia, Penn.—Henry L. Brown, 1714 Sansom St., at $279,597, submitted the lowest bid for the general contract for the construction of the three-story, 132x315-ft. school at 56th St. and Kingsessing Ave.

+Philadelphia, Penn.—The contract for the construction of an apartment house at 21st and Venango St. for H. K. Read has been awarded to I. T. SHOEMAKER, 1309 Walnut St., at about $72,000.

Pittsburgh, Penn. — McClure & Spahr, Arch., 320 Fourth Ave., is preparing plans for the construction of a ten-story 45x72-ft. store and office building at Fourth Ave. and Ross St. for B. F. Jones, Jr., of the Jones & Laughlin Steel Co.

Pottsville, Penn.—Walter Wertley & Son, at $44,250, submitted the lowest bid for the construction of a three-story, 65x122-ft. high school. Francis X. Reilly is Arch. Noted Dec. 24.

Radnor, Penn.—A. J. Drexel Paul will construct a 2½-story, 80x167-ft. building. The estimated cost is $100,000. Charles A. Platt, 11 East 24th St., New York, N. Y., is Arch.

Scranton, Penn.—Plans are being prepared by Edward Langeley, Arch., Connell Bldg., for the construction of an eight-story office building for the Scranton Life Insurance Co., Connell Bldg. The estimated cost is $400,000. Noted Feb. 11.

South Bethlehem, Penn.—Bids will soon be received by Dr. Yost, Secy. of School Bd., Fourth and Vine St., for the construction of a three-story high school. Estimated cost, $175,000. A. W. Leh, Post Office Bldg., is Arch. Noted Feb. 25.

Wilkes-Barre, Penn.—Bids are being received by Sturdevant & Poggi, Arch., Coal Exchange Bldg., for the construction of the five-story, 54x120-ft. Masonic Temple. The estimated cost is $75,000. Noted Nov. 19.

Wilmington, Del.—The Y. W. C. A. plans to construct a fireproof building to cost about $125,000.

Washington, D. C.—Plans are being prepared for the construction of a three-story addition to the Casualty Hospital on Massachusetts Ave. Estimated cost, $40,000.

Warwood, W. Va.—Plans are being prepared by Fred F. Faris, Wheeling, W. Va., for the construction of the Central Warwood School. Estimated cost, $40,000.

Columbia, S. C.—An election will be held Mar. 23 by the School Commission, to vote on issuing $250,000 in bonds for the construction of a high school and additions to the grammar schools.

Ridgeland, S. C.—Bids will be received until noon Apr. 6, by J. E. Gill, County Super., for the construction of the county courthouse and jail. William A. Edwards, 633 Candler Bldg., Atlanta, Ga., is Arch.

Conyers, Ga.—Plans are being prepared by W. A. Edwards, Arch., 633 Candler Bldg., Atlanta, Ga., for the construction of a school. Estimated cost, $50,000.

Louisville, Ky.—(Official)—Bids will be received by Samuel D. Jones for the construction of a two-story school. Estimated cost, $75,000. John E. Henry is Arch. Noted Mar. 11.

Cleveland, Ohio—Plans are being prepared for the construction of a building at West 65th St. and Lorain Ave. for the Ohio State Telephone Co., Electric Bldg. Estimated cost, $200,000. Charles Y. McVey is Mgr.

Cleveland, Ohio—Bids will be received until noon, Mar. 22, by the Board of Education for the construction of a three-story addition to the Hazeldell School at East 123d St. and St. Clair Ave. Estimated cost, $150,000.

Cleveland, Ohio—Willard Hirch, Arch., 1302 Swetland Bldg., has prepared plans for the construction of a four-story, 55x183-ft. apartment house at 3147 Prospect Ave. S. E. for the United Improvement Co. The estimated cost is $75,000.

Cleveland, Ohio—Edward Curtis, Stoneman Bldg., is preparing plans for the construction of a three-story apartment house at Whitehorn Ave. and East 77th St. for the Addison Square Realty Co. Estimated cost, $40,000.

+Columbus, Ohio—(Official)—The contract for the construction of the Studer Ave. School has been awarded to D. W. McGRATH, at $182,385. Edward B. MacFadden is Clk. of Bd. of Education. Noted Mar. 11.

Fostoria, Ohio—McLaughlin & Hulsken, Arch., Lima, is preparing plans for the construction of a three-story high school. The estimated cost is $130,000.

+Rittman, Ohio—The Board of Education awarded the general contract for the construction of the $40,000 high school to FORAKER BROS., Barberton. Noted Aug. 13, Sept. 17 and Feb. 25.

Toledo, Ohio—The Board of Education contemplates the construction of a school on Sherman St. Estimated cost, $200,000.

Willoughby, Ohio—Bids will be received until Mar. 20 by the Board of Education for the construction of a three-story, 101x121-ft. high school. F. C. Warner, Hippodrome Bldg., Cleveland, is Arch. Noted Oct. 8, Jan. 21 and Feb. 4.

Ben Davis, Ind.—(Bridgeport post office)—G. W. Gordon, Arch., 1438 Park Ave., Indianapolis, has prepared plans for the construction of a two-story, 96x108-ft. school for Joseph M. Hillman, R. F. D. 21, West Indianapolis (Indianapolis post office). Estimated cost, $50,000.

Goshen, Ind.—The Board of Education contemplates the construction of a vocational school at Goshen. Estimated cost, $50,000.

Detroit, Mich.—Plans are being prepared by W. B. Stratton, Arch., 1103 Union Trust Bldg., for the construction of a theater at Woodward and Horton Ave. for the Regent Theater Co. The theater will have a seating capacity of 3500 and cost about $150,000.

Detroit, Mich.—Bids will be received until Mar. 30 by Charles A. Gadd, Secy. of Bd. of Education, 50 Broadway, for the construction of the Southeastern High School.

Detroit, Mich.—Joseph P. Jogerst, Arch., 1402 Kresge Bldg., is preparing plans for the construction of a six-story, 71x75-ft. apartment house for Sam Plotkin, 410 Moffat Bldg. The estimated cost is $150,000.

Detroit, Mich.—Bids will be received until 4:30 p.m., Mar. 23, by Charles A. Gadd, Secy. of Bd. of Education, 50 Broadway, for the construction of an addition to the Garfield School.

Lansing, Mich.—The State Senate has passed a bill for an appropriation of $600,000 for the construction of a state building. Noted Feb. 4.

Lowell, Mich.—Contracts will be awarded about Apr. 1 for the construction of a high school to cost about $50,000. E. M. Wood, Alma, is Arch.

Chicago, Ill.—Joseph E. Swanson, 3122 Sheridan Rd., has purchased a site at Lincoln Park West and Fullerton Parkway, for the construction of an apartment house. The estimated cost is $200,000.

Palestine, Ill.—Plans have been prepared by Hewitt & Emerson, Arch., 321 Main St., Peoria, for the construction of a two-story, 100x140-ft. high school. The estimated cost is $50,000. Contracts will be awarded about Apr. 20.

La Crosse, Wis.—Bids will be received about Mar. 25 by Parkinson & Dockendorff, Arch., for the construction of two wings to the hospital of the Sisters of St. Francis. One will be four stories, 45x46 ft. and the other three stories, 41x88 ft. Estimated cost, $100,000. Noted Mar. 11.

Manson, Iowa—Bids will be received until Mar. 25 by the Clerk of the Board of Education for the construction of a high school. The estimated cost is $40,000. E. O. Damon, Jr., Ft. Dodge, is Arch.

Missouri Valley, Iowa—Bonds to the amount of $80,000 have been voted for the construction of a high school. Noted Feb. 11.

Duluth, Minn.—Bids will be received until 1 p.m., Mar. 29, by the Board of Education for the construction of the Lincoln High School. Noted Dec. 31.

Glenwood, Minn.—Citizens voted in favor of issuing $50,000 in bonds for the construction of a high school. Noted Dec. 31.

+Minneapolis, Minn.—(Official)—C. H. Johnston, Arch., 715 Capital Bank Bldg., St. Paul, informs us that the HODGIN CONSTRUCTION CO., St. Paul, at about $131,000, has been awarded the contract for the construction of the biology building at the University of Minnesota. Noted Oct. 22, Dec. 31 and Feb. 4.

St. Paul, Minn.—C. H. Johnston, Arch., 715 Capital Bank Bldg., has prepared plans for the construction of ward buildings for a hospital. The estimated cost is $80,000.

Manhattan, Kan.—H. B. Winter, Arch., has prepared plans for the construction of a two-story, 64x97-ft. building for the First Presbyterian Church. Estimated cost, $40,000.

Marysville, Kan.—The Board of Education plans to construct a $45,000 school at Marysville. E. O. Webber is Pres. of Bd. of Education.

Winfield, Kan.—Plans have been prepared by William Mampe for the construction of a four-story, 60x175-ft. dormitory at St. John's College.

Omaha, Neb.—The Masonic Lodges plan to construct an eight-story fireproof building on 16th St. and Capitol Ave. The estimated cost is $300,000.

Canton, S. D.—Miller, Fullenweider & Dowling, Arch., 116 South Michigan Ave., Chicago, Ill., has prepared plans for the construction of a high school. The estimated cost is $65,000.

Douglas, Wyo.—Plans have been prepared by W. N. Bowman, Arch., 915 Central Savings Bank Bldg., Denver, Colo., for the construction of a two-story, 60x80-ft. county court house. Estimated cost, $40,000.

Butte, Mont.—Work will be started about Apr. 1 on the construction of a depot at Montana St. for the Chicago, Milwaukee & St. Paul Ry. The estimated cost is $250,000. A. J. Earling is Pres. and C. F. Loweth is Ch. Engr.

Jefferson City, Mo.—The Legislature has made appropriations for constructing additions and making alterations to the state educational institutions as follows: Kirksville, $289,750; Warrensburg, $232,150; Cape Girardeau, $199,000; Springfield, $261,000; Maryville, $141,500; Lincoln, $116,000; University of Missouri, Columbia, $1,108,300; Missouri School of Mines and Metallurgy, Rolla, $166,200. Floyd Tuggle is Chn. of the House Appropriations Com. Noted under **Columbus**, Mo., Jan. 14.

Kansas City, Mo.—According to press reports **W. E. Halsell**, T. H. Thompson and S. H. Hogsett propose to construct a six-story interurban railway station at 14th, 15th and Main St. and Baltimore Ave. The estimated cost **is $1,000,000.** Samuel B. Tarbet, 507 Republic Bldg., is Arch.

St. Joseph, Mo.—(Official)—Plans have been prepared by Eckel & Aldrich, Arch., for the construction of a five-story, 140x170-ft. building for the Methodist Episcopal Hospital. Noted Nov. 12 and 26.

+Austin, Tex.—The First Baptist Church awarded the contract to JAMES WATTERSON for the construction of a one-story, 80x130-ft. building at 10th and Colorado St. Estimated cost, $65,000.

Dallas, Tex.—Plans are being prepared by William B. Ittner, Arch., 408 Board of Education Bldg., St. Louis, Mo., for the construction of the South Dallas High School and the Winnetka Ward School. J. M. McCormick is Pres. of Bd. of Education.

(Buildings continued on page 140)

MYSTIC VALLEY PARKWAY, MEDFORD, MASS.

Contract No. 174

Bids were received Feb. 9 by John R. Rablin, Engr., 15 Beacon St., Boston, for grading, surfacing and other work of the Mystic Valley Parkway from Main St. to Mystic Ave., Medford, from: (A) M. Russo & Son Co., Boston; (B) Joseph McCormick, East Providence, R. I.; (C) John Landis, Boston; (D) George T. Rendle Co. and Rendle & Stoddard, Boston; (E) Lawler Bros., Charlestown; (F) Susi & Williams, Boston; (G) Michael D. Russo, Boston; (H) William R. Farrell, Allston; (I) John P. Cavanagh Co., Dorchester; (J) Peter Bombiani & Co., West Quincy; (K) Middlesex Contracting Co., Framingham; (L) Hugh Nawn Contracting Co., Roxbury; (M) B. Perini & Co., Ashland; (N) William J. McCarthy Co., Somerville; (O) John Cashman & Sons Co., Boston; (P) William B. Mullen, Belmont; (Q) Timothy B. Moynihan, South Hamilton; (R) Charles A. Kelley, Somerville; (S) Rowe Contracting Co., Brighton; (T) James H. Fannon, Somerville; (U) Richmond F. Hudson, Melrose; (V) COLEMAN BROS., Boston (awarded contract). The item bids were as follows:

GRADING AND SURFACING—MYSTIC VALLEY PARKWAY, MEDFORD, MASS.

	A	B	C	D	E	F	G	H	I	J	K
4000 cu.yd. earth grading	$0.40	$0.75	$0.53	$0.80	$0.75	$0.55	$0.48	$0.75	$0.35	$0.50	$0.50
45,000 cu.yd. filling material	1.35	1.20	1.16	1.00	0.85	0.95	0.93¾	0.75	0.84	0.92	1.00
850 lin.ft. 10-in. vitrified pipe drain	0.50	0.45	0.45	0.36	1.50	0.60	0.41½	0.57	0.50	0.52	0.30
800 lin.ft. 12-in. vitrified pipe drain	0.50	0.50	0.55	0.41	1.60	0.75	0.45	0.61	0.50	0.58	0.35
400 lin.ft. 24-in. vitrified pipe drain	1.50	3.00	0.65	1.19	2.50	2.00	1.35	1.57	1.60	1.26	1.50
26 catch-basins and manholes	35.00	40.00	30.00	65.00	125.00	30.00	23.50	50.00	40.00	55.00	35.00
170 lin.ft. straight edgestone	1.25	1.25	1.00	1.00	1.10	1.00	1.25	1.38	2.00	1.49	1.10
140 lin.ft. curved edgestone	1.65	1.60	1.25	1.00	1.75	1.25	1.55	1.95	2.00	1.79	1.25
3000 cu.yd. loam	1.35	1.50	1.50	2.80	1.60	1.50	2.15	2.58	2.25	1.25	1.25
11,000 sq.yd. roadway surfacing	0.56	0.57	0.58	0.70	0.85	0.70	0.79	1.15	0.75	0.68	0.55
3200 sq.yd. walk surfacing	0.30	0.30	0.45	1.00	1.00	0.75	0.78	0.87	0.65	0.50	0.20
750 cu.yd. stone masonry	5.50	6.50	10.00	7.00	10.00	10.70	7.10	8.00	8.50	5.25	4.75
Extended totals	$80,423	$77,064	$76,347	$75,860	$73,337	$70,610	$69,362	$69,332	$65,780	$63,511	$63,409

	L	M	N	O	P	Q	R	S	T	U	V
4000 cu.yd. earth grading	$1.00	$0.47	$0.35	$0.45	$0.50	$0.35	$0.30	$0.50	$0.40	$0.60	$0.40
45,000 cu.yd. filling material	0.75	0.85	0.85	0.65	0.78	0.85	0.75	0.67½	0.69	0.62	0.56
850 lin.ft. 10-in. vitrified pipe drain	0.60	0.47	0.45	0.40	0.45	0.40	0.35	0.50	0.40	0.40	0.30
800 lin.ft. 12-in. vitrified pipe drain	0.70	0.57	0.55	0.50	0.55	0.45	0.45	0.60	0.50	0.45	0.40
400 lin.ft. 24-in. vitrified pipe drain	2.00	2.50	1.40	1.50	1.35	1.50	1.35	2.00	1.50	1.25	1.25
26 catch-basins and manholes	100.00	30.00	35.00	60.00	45.00	35.00	35.00	30.00	25.00	30.00	50.00
170 lin.ft. straight edgestone	1.05	1.10	1.00	1.25	0.95	1.00	1.00	1.10	1.10	1.25	1.00
140 lin.ft. curved edgestone	2.00	1.25	1.25	1.40	1.40	1.75	1.10	1.50	1.40	1.75	1.50
3000 cu.yd. loam	1.50	1.10	1.15	2.00	1.15	1.00	1.15	1.20	1.25	1.00	1.00
11,000 sq.yd. roadway surfacing	0.75	0.47	0.50	0.75	0.60	0.60	0.45	0.60	0.60	0.55	0.49
3200 sq.yd. walk surfacing	0.90	0.47	0.30	0.70	0.25	0.20	0.30	0.35	0.35	0.40	0.30
750 cu.yd. stone masonry	6.00	6.00	7.00	8.10	6.50	4.00	6.00	6.00	3.00	5.00	6.50
Extended totals	$62,808	$57,601	$57,447	$56,923	$55,715	$55,515	$51,241	$51,077	$48,743	$46,817	$43,780

Denton, Tex.—The citizens of Denton have voted in favor of issuing $110,000 in bonds for the construction of a school.

Pocatello, Idaho—Bonds to the amount of $200,000 will soon be voted on by the citizens for rebuilding the high school recently destroyed by fire.

Carson City, Nev.—The University of Nevada plans to construct an agricultural building. The estimated cost is $80,000. Bliss & Faville, Balboa Bldg., San Francisco, Calif., is Arch.

Fall City, Wash.—Bids will be received about Mar. 20 by the School Board for the construction of a school to cost about $50,000. Stephen & Stephen, New York Blk., Seattle, is Arch.

Olympia, Wash.—The Olympia National Bank is having preliminary plans prepared for the construction of a fireproof bank building at Fifth and Main St. Estimated cost, $50,000.

Pomeroy, Wash.—The Knights of Pythias contemplate the construction of a building. The estimated cost is $40,000. C. A. Thompson is Member of Bldg. Com.

Seattle, Wash.—A. V. Williams, New York Blk., is Representative for a number of Chinese capitalists of Portland, Ore. They plan to construct a three-story hotel at Seventh Ave. and King St. Estimated cost, $50,000.

✚Portland, Ore.—The contract for the construction of the four-story office building on East Ankeny St. for the Blake-McFall Co. has been awarded to JOHN ALMETER, at about $90,000. Noted Dec. 24 and under "Industrial Works," Nov. 19.

✚Colton, Calif.—The contract for the construction of a school for the Colton School Board has been awarded to NANCE PHELPS CO., Los Angeles, at $50,383. Noted Oct. 22.

Long Beach, Calif.—Plans have been prepared by W. H. Austin, Arch., Elm Ave., for the construction of six additional stories to the wing and two additional stories to the center building of Hotel Schuyler on Ocean Ave. near Pine St., Estimated cost, $60,000.

Los Angeles, Calif.—Plans are being prepared by Morgan, Walls & Morgan, Van Nuys Bldg., for the construction of a two-story school on East Seventh St. The estimated cost is $75,000.

✚Los Angeles, Calif.—L. T. MAYO, Story Bldg., has been awarded the contract for the construction of a three-story hotel on Hope St. for Bertha M. Fisher and Elizabeth Hodgkins. The estimated cost is $50,000.

Los Angeles, Calif.—Eisen & Son, Arch., Wilcox Bldg., has prepared plans for the construction of a two-story brick school on 20th St. The estimated cost is $50,000.

Los Angeles, Calif.—The Board of Education will construct a two-story school on 14th St. C. H. Russell, 1114 Story Bldg., is Arch. The estimated cost is $100,000.

Pasadena, Calif.—Train & Williams, Arch., Exchange Bldg., Los Angeles, is preparing plans for the construction of an apartment house at Orange Grove Ave., and Elevando Drive for the F. R. Kellogg Co., Douglas Bldg., Los Angeles. The estimated cost is $150,000.

Sacramento, Calif.—The Sacramento Country Club has purchased a site in the Carmichael Colony. The club plans to construct a $50,000 building. George W. Peltier is interested.

San Diego, Calif.—Harrison Albright, Arch., Laughlin Bldg., Los Angeles, has prepared preliminary plans for the construction of a five-story, 100x200-ft. reinforced-concrete building for city uses on Broadway for John D. Spreckles. Estimated cost, $500,000.

Municipal Bond Sales during February totaled $38,000,000, compared with $34,606,000 in the corresponding month of last year. In the first two months of the year, however, there is a decrease, which is not so much a falling off as it is the comparison with unusual sales during January, 1914.

The Railway & Contractors Supply Permanent Exhibit, Chicago, Ill., has leased an entire floor in the Lytton Bldg., State and Jackson St. This organization maintains show space and offices for manufacturers having no office in the business district. Space may be rented at $3.50 per sq.ft. per year, including office equipment, telephone service, etc. A public stenographer is present, while a clerk is employed to forward all communications during a tenant's absence. The following companies have rented exhibit and office space: Novo Engine Co., Troy Wagon Works, Pulsometer Steam Pump Co., Wemlinger Steel Piling Co., Gold Car Heating & Lighting Co., Chicago Steel Car Co., William Sellers & Co., Bessemer Gas Engine Co., Eynon Continuous Crossing Co., O. M. Edwards Co., W. H. Anderson Tool & Supply Co., Chicago Steel Tape Co., American Cement & Machine Co.

BROAD ST. BRIDGE, PHILADELPHIA, PENN.

Contract No. 201

✚★Bids were received Feb. 25 by Morris L. Cooke, Dir. Dept. of Pub. Wks., for the construction of a concrete bridge to carry Broad St. over the joint four-track railway, South Philadelphia track elevation, from: (A) MacArthur Bros. Co. and Mason & Hanger Co., 11 Pine St., New York; (B) Charles P. Bower, Wayne and Roberts Ave., Philadelphia; (C) Robert Grace Contracting Co., 514 Smithfield St., Pittsburgh; (D) American Paving & Construction Co., 211 South Ninth St., Philadelphia; (E) M. & J. B. McHugh, 714 Commercial Trust Bldg., Philadelphia; (F) Snare & Triest Co., 233 Broadway, New York; (G) Carl R. Camp, Crozer Bldg., Philadelphia; (H) E. E. Smith Contracting Co., 101 Park Ave., New York; (I) William H. Millard, 12th St. and City Line, Philadelphia; (J) A. L. Guidone & Co., 131 East 23d St., New York; (K) McHarg-Barton Co., 171 Madison Ave., New York; (L) Francis J. Boas, 201 North Broad St., Philadelphia; (M) Thomas F. Reilly, 50th St. and City Ave., Philadelphia; (N) Kelley-McFeeley Co., 432 Market St., Camden, N. J.; (O) ARTHUR McMULLEN CO., INC., 149 Broadway, New York (awarded contract); (P) Edwin H. Vare, 1120 Race St., Philadelphia. The item bids were as follows:

BROAD ST. BRIDGE, PHILADELPHIA, PENN.

Contract No. 201

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
100 cu.yd. excavation, unclassified	$1.15	$1.65	$5.00	$2.00	$1.50	$1.50	$2.00	$4.00	$1.50	$1.00	$1.50	$1.00	$2.25	$1.50	$3.00	$2.50
100 cu.yd. 1-3-6 concrete below neat lines	5.80	10.00	7.50	6.00	6.50	7.50	15.00	7.00	6.50	6.00	5.00	10.00	5.75	9.00	7.00	6.00
100 cu.yd. 1-3-6 concrete above neat lines	5.80	10.00	7.50	7.00	7.50	7.00	8.00	9.00	7.50	5.00	6.00	8.00	6.85	10.00	7.00	6.00
100 cu.yd. 1-2½-5 concrete in place	7.05	10.00	7.50	7.00	8.00	8.00	9.00	9.00	8.50	5.00	6.50	9.00	9.00	11.00	8.00	7.00
100 cu.yd. 1-2-5 concrete in place	7.30	10.00	8.00	7.00	8.00	8.00	9.00	10.00	8.50	5.00	5.00	9.00	9.00	11.00	8.25	7.00
100 cu.yd. 1-2-4 concrete	7.75	10.00	8.50	9.00	9.00	8.00	10.00	9.00	10.00	5.00	5.00	9.00	10.00	11.00	8.50	8.00
1000 lb. steel rods	0.03	0.03½	0.05	0.05	0.04	0.03	0.04	0.03	0.03	0.03	0.03½	0.08	0.03	0.05	0.03	0.10
100 sq.ft. bush hammering	0.10	0.08	3.60	0.12	0.09	0.20	0.08	0.10	0.10	0.10	0.10	0.25	0.07	0.04	0.05	0.20
1000 M wooden railings	50.00	75.00	100.00	60.00	100.00	50.00	50.00	75.00	100.00	50.00	80.00	80.00	70.00	60.00	40.00	125.00
100 sq.ft. corrugated asbestos boards	0.10	0.12	1.00	0.05	0.12	0.25	0.02	0.25	0.15	0.03	0.20	0.10	0.02	0.03	0.12	0.25
10 sq.yd. granite block paving	4.50	2.50	3.00	3.00	2.90	3.50	3.00	3.50	3.50	3.75	1.50	2.50	2.50	3.50	2.50	2.80
10 sq.yd. macadam paving	1.50	2.00	2.50	1.25	1.25	1.20	2.00	1.50	1.50	1.75	1.25	1.50	0.95	1.50	2.00	1.20
100 sq.ft. asphaltic mastic waterproofing	0.25	0.20	0.50	0.20	0.25	0.12	0.20	0.25	0.20	0.18	0.15	0.25	0.15	0.10	0.20	0.18
10 sq.yd. vitrified brick gutter	2.50	2.50	3.00	2.50	2.50	2.50	1.60	2.50	2.50	1.85	2.00	3.50	1.75	2.50	2.00	2.00
10 lin.ft. 5-in. straight bluestone curb	1.00	1.00	1.00	0.67	0.75	1.20	0.70	1.50	0.80	1.50	1.00	1.50	0.65	0.80	1.00	0.60
10 lin.ft. 8-in. steel-bound grano curb	1.00	1.00	1.25	1.50	1.25	1.20	1.50	1.50	1.50	0.70	0.75	2.00	0.85	0.85	1.00	0.70
100 lin.ft. 4-in. vitrified clay pipe	0.15	0.15	0.45	0.25	0.50	0.35	0.30	0.35	0.25	0.15	0.15	0.50	0.10	0.15	0.50	0.15
1000 lb. pig lead	0.07	0.07	0.15	0.06	0.06	0.08	0.06	0.07	0.10	0.06	0.06	0.10	0.05	0.06	0.12	0.04½
100 lb. jute gasket	0.10	0.07	0.20	0.08	0.06	0.20	0.07	0.15	0.15	0.06	0.15	0.10	0.40	0.06	0.25	0.06
Foreman, per hour	0.75	0.60	0.80	0.60	0.60	0.60	0.60	0.60	1.00	0.50	0.50	0.75	0.50	0.60	0.60	0.60
Laborer, regular hours	0.35	0.25	0.30	0.22½	0.20	0.30	0.20	0.25	0.30	0.25	0.20	0.25	0.20	0.25	0.25	0.20
Laborer, overtime	0.55	0.25	0.50	0.22½	0.30	0.40	0.30	0.40	0.60	0.30	0.20	0.40	0.30	0.38	0.25	0.20
Carpenter, regular hours	0.65	0.60	0.60	0.50	0.60	0.70	0.60	0.75	0.70	0.55	0.50	0.65	0.55	0.60	0.40	0.55
Carpenter, overtime	1.30	0.90	1.00	0.50	0.90	1.00	0.80	1.00	1.40	1.10	1.00	1.00	0.80	0.90	0.60	0.55
Cement finisher, regular hours	0.80	0.60	0.60	0.60	0.50	0.60	0.60	0.70	0.50	0.50	0.45	0.65	0.50	0.50	0.30	0.45
Cement finisher, overtime	1.60	0.90	1.00	0.60	0.75	0.90	0.80	1.00	1.00	1.00	0.90	1.00	0.75	0.75	0.45	0.45
Bricklayer, regular hours	0.80	0.75	1.00	0.75	0.75	0.70	0.75	0.90	1.00	0.62½	0.75	0.75	0.70	0.70	0.70	0.70
Bricklayer, overtime	1.60	1.50	2.00	0.75	1.13	1.40	1.50	1.40	2.00	1.25	1.00	1.00	1.00	1.05	1.05	0.70
Plumber, regular hours	0.65	0.60	1.00	0.60	0.60	0.70	0.70	0.90	1.00	0.50	0.60	0.65	0.60	0.80	0.70	0.40
Plumber, overtime	1.30	0.90	2.00	0.60	0.90	1.00	1.40	1.40	2.00	1.00	1.00	1.00	0.90	0.90	1.05	0.40
Plumber's helper, regular hours	0.35	0.35	0.60	0.25	0.35	0.40	0.30	0.50	0.60	0.40	0.30	0.35	0.40	0.30	0.30	0.30
Plumber's helper, overtime	0.70	0.50	0.90	0.25	0.50	0.70	0.60	0.75	1.20	0.80	0.60	0.60	0.60	0.45	0.45	0.30
Use of team and driver, per hour	1.00	0.65	0.80	0.70	0.60	0.90	0.75	0.75	1.00	0.60	0.70	0.70	0.60	0.70	0.70	0.50
Amount added to net cost of material	15%	20%	20%	15%	15%	10%	25%	20%	20%	10%	10%	20%	15%	15%	10%	10%
Time of completion in months	15	20	20	14	18	12	17	16	20	24	22	22	11	16	18	18
Extended totals	$309,956	$344,614	$299,339	$318,719	$343,543	$263,287	$298,533	$369,328	$260,731	$360,596	$290,717	$327,212	$291,835	$307,656	$242,256	$251,153

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

RAILWAYS

Maryland—Cumberland Valley R.R.—According to press reports surveys are being made by this company for the improvement of its line from Hagerstown to the Potomac River, about 10 miles. T. B. Kennedy, Chambersburg, Penn., is Engr.

✚North Carolina—The contract for constructing a railway from Shelby to Casar, N. C., about 21 miles, recently awarded to W. T. Clement and L. J. Hawley has been rescinded and reawarded to S. S. ROYSTER and O. ELAM, Shelby. Noted Nov. 26.

✚Georgia—Flint River R.R. & Navigation Co.—This company has awarded a contract for the construction of a railway from Hawkinsville through Unadilla and Byromville to Albany, Ga., about 80 miles, to RICKS & CO., Lilly, Ga.

Illinois—Illinois Central R.R.—This company is preparing plans for double-tracking its St. Louis & Paducah division from Carbondale to Metropolis, Ill. A. S. Baldwin, Chicago, Ill., is Ch. Engr.

Wisconsin—Balsam Lake & Eastern R.R.—This company has applied to the Wisconsin Railroad Commission for permission to construct a railway from Balsam Lake to Centuria, Wis. R. H. Sublette, Minneapolis, Minn., is Ch. Engr.

Texas—Texas Midland R.R.—Plans are being prepared for electrifying this company's line which runs from Paris to Ennis, Tex., about 135 miles. L. W. Wells, Terrell, Tex., is Ch. Engr.

Idaho—Gilmore & Pittsburg R.R.—According to press reports this company will construct a railway from Salmon to Lewiston, Idaho. Work will be started this spring. The company has offices at Salmon, Idaho.

Arizona—El Paso & Southwestern R.R.—Plans are being considered by this company for the extension of its line from Tucson to Ajo, Ariz., about 125 miles. H. J. Simmons, El Paso, Tex., is Gen. Mgr.

California—Atchison, Topeka & Santa Fé Ry.—This company plans to make extensive improvements to its terminal yards at Richmond, Calif. F. M. Bisbee, Amarillo, Tex., is Ch. Engr. Western Lines.

Saskatchewan—Regina Northwestern R.R.—This company plans to start work soon on the extension of its line from Regina, Sask., to Red Deer, Alta. The Board of Directors includes G. L. Kavanagh, O. L. Brunelle, J. Whitesell, J. Clyma and G. Bordeau, Montreal, Que.

ELECTRIC RAILWAYS

Buffalo, N. Y.—Plans are being prepared by the International Ry. Co. for the purpose of double-tracking its line on Virgil Ave. to Kenmore Ave. J. C Sheldon is Pur. Agt.

Geneva, N. Y.—The Geneva, Seneca Falls & Auburn Ry. Co., Inc., has requested the City Council to grant a franchise to double-track Exchange St. from Seneca to the New York Central tracks in Geneva. George Everill, Waterloo, is Ch. Engr.

Ithaca, N. Y.—Surveys are now being made by the Ithaca Traction Corporation for the Mitchell St. and Stewart Ave. lines. R. L. Post is Asst. Gen. Mgr.

Middletown, N. Y.—The Wallkill Transit Co. is considering plans for an extension from Midway Park to connect with the extension of the Newburgh line from the Walden terminal, taking in the towns adjacent, including Maybrook, Montgomery and Campbell Hall. W. D. Van Inwegen is Ch. Engr.

✚Johnstown, Penn—The Somerset St. Ry. Co. has awarded a contract to J. A. VANDEGRIFT & CO. for the construction of an electric railway connection between Rockwood and Johnstown. About $1,500,000 has been raised to finance the proposition.

Lancaster, Penn.—The Conestoga Traction Co. has completed surveys for a 13-mile line to be a branch of the Lancaster and Coatesville Division. R. B. Hull is Gen. Mgr.

New Castle, Penn.—James L. Freeble is interested in plans to build an electric railway from the corner of Haywood St. in Farrell to Mercer and New Castle.

Reading, Penn.—The Reading Transit & Light Co. will make improvements to its lines to cost about $200,000. H. H. Reigel is Pur. Agt.

Washington, D. C.—A request has been made to the Public Utilities Commission by the Washington & Maryland Ry. for permission to extend its lines from Third St. and Kennedy St. to 13th St. and Ohio Ave., N. W. T. F. Schumacher, Belair Rd. and Rittenhouse St., is Supt.

Washington, D. C.—The Capital Traction Co. plans to build a line on 17th St. D. S. Carll is Gen. Mgr.

Petersburg, Va.—The Petersburg & Appomattox Ry. Co. has been chartered to build an electric railway from Petersburg to City Point, about five miles. The company is capitalized at $100,000, and J. M. Wortham is Pres.

Asheville, N. C.—The Asheville Power & Light Co. plans to extend its lines in Kenilworth Park. J. C. Donald is Supt.

Florence, Ala.—The Florence & Huntsville Interurban Ry. Co. is making surveys and preliminary plans are being made for a 75-mile line to connect Florence, Rogersville, Athens and Huntsville. Three power stations will be located along the line and repair shops will be in Florence. The authorized capital stock is $100,000, and S. Jacobs, Birmingham, is Pres.

West Point, Ky.—The Louisville & Interurban Ry. Co. plans to extend its Orell line into West Point. T. J. Minary, 316 West Jefferson St., Louisville, is Gen. Mgr.

Cincinnati, Ohio—An ordinance has been adopted by the City Council, which requires the Cincinnati St. Ry. Co. and the Cincinnati Traction Co. to extend the Warsaw Ave. route along Glenway Ave. from Wilder Ave. to Seton Ave. in Cincinnati. Thomas Elliott is Ch. Engr. for the Cincinnati Traction Co.

Youngstown, Ohio—The New Castle Traction Co. is considering plans for building a line on Atlantic Ave. also to construct a terminal loop on the public square in New Castle. This company is controlled by the Republic Ry. & Light Co., 15 Exchange Pl., Jersey City, N. J.

Houston, Tex.—Preliminary plans have been formed for constructing an interurban electric railway between Houston and Richmond, about 30 miles.

Los Angeles, Calif.—The City Council has granted a franchise to the Pacific Electric Ry. Co. for an extension on Central Ave. J. McMillan is Gen. Mgr.

Oakland, Calif.—According to reports, the city will construct a belt line along the estuary quay wall from Clay to Market St. Harry S. Anderson is Comr. of Pub. Wks.

Pasadena, Calif.—The Pacific Electric Ry. Co. will soon lay tracks on North Fair Oaks Ave. in Pasadena. J. McMillan, Los Angeles, is Gen. Mgr.

Stellarton, N. S.—The Pictou County Electric Co., Ltd., will start work some time during April on its extension to Parkdale. Leonard T. Flaherty is Gen. Mgr.

Three Rivers, Que.—The City Council has granted a 23-year franchise to the Three Rivers Traction Co. This company plans to build, in the future, a 30-mile railway, and at present intends to lay 5½ miles of track within the city limits.

Baysville, Ont.—The Council and Board of Trade of Bracebridge and the Councils of Baysville, Sherbourne, Nightingale and Clintock have indorsed a project for the construction of a hydro-electric radial railway from Bracbridge to the Wa Wa Hotel, a distance of about 24 miles.

Perth, Ont.—The Ottawa & St. Lawrence Electric Ry. Co., according to press reports, will soon start work on the Perth and Smith Falls section of its proposed railway. The line is to extend through Rideau Ferry.

St. Catharines, Ont.—The Niagara, St. Catharines & Toronto Ry. plans to build an extension on Bridge St. of the Falls Division from Erie to Victoria Ave. in Niagara Falls. E. F. Seixas is Gen. Mgr.

LIGHT, HEAT AND POWER

Waterville, Maine—It is reported that the City Council contemplates the installation of a municipal electric-light and power plant. Eugene W. Crawford is City Engr.

Brockton, Mass.—The Edison Electric Illuminating Co. of Brockton contemplates the construction of a new substation in the northern part of the city, and building two transmission lines from Brockton to North Easton. A. F. Nelson, Brockton, is Mgr.

✚Bristol, Conn.—(Official)—The contracts for plumbing and electrical work for the new school on Maple St. have been awarded to ROBERTS & ARNOLD, Bristol, at $4498, and W. E. THROOP, Bristol, at $2179, respectively. The contract for heating and ventilating will soon be awarded. Walter P. Crabtree, 272 Main St., New Britain, is Arch.

✚Albany, N. Y.—The Municipal Gas Co. has awarded the contract for the construction of a 108x146-ft. power house to the PETER KEELER BUILDING CO., Albany, at about $60,000.

★Kings Park, N. Y.—(Official)—Bids were received Mar. 18 by the State Hospital Commission, Albany, for heating, plumbing and drainage, and electrical work in a new building for chronic patients at the Kings Park State Hospital. The three lowest bids for each contract are given below, Proposals Nos. (1) and (2): Heating, W. B. Armstrong Co., Albany, (1) $5531, (2) $1900; Walker & Chambers, New York, N. Y., (1) $5540, (2) $1985; E. Rutzler Co., New York, N. Y., (1) $5690, (2) $1999, and nine others; plumbing and drainage; Arthur S. Gaynor Co., 168 West 99th St., New York, (1) $7381, (2) $2065; George E. Gibson Co., 49 East 21st St., New York, (1) $7630, (2) $1980; W. B. Armstrong Co., (1) $7943, (2) $2255, and seven others; electrical work, S. G. Waterman, 817 Broadway, New York, (1) $909, (2) $332; Isador Fajans, 122 East 25th St., New York, (1) $1179, (2) $449; Murphy & Walsh, (1) $1194, (2) $418, and four others. Noted Mar. 11.

Newark, N. Y.—It is reported that an appropriation of $15,000 has been made for extensions to the street-lighting system, and plans for the work are now under consideration.

New York, N. Y.—(Borough of Bronx)—Bids were opened Mar. 22 by the Department of Health for plumbing and gasfitting, and steam-heating plant for two concrete pavilions on the grounds of the Department of Health, Riverside Hospital, North Brother Island, Borough of Bronx. The bids for plumbing and gasfitting were as follows: E. Kraus, $7900; William Young Plumbing Co., $10,665; A. S. Gaynor Co., $8195; T. E. O'Brien, $11,700; J. B. Brady, $9662; J. S. Murphy, $8787; George E. Gibson, $8187; Harry Kline, $9010; J. J. Kenny, $9175; J. F. Hook, $9285; J. G. Barth Plumbing & Heating Co., $11,729. Bids for the heating plant were as follows: A. B. Demerest, $9876; Philp & Paul, $11,944; Leslie & Tracy, $8900;

Raisler Heating Co., $10,300; E. Rutzler, $10,279; Adam Britz, $10,840; George E. Gibson, $8200; Walker & Chambers, $7260; J. G. Barth Plumbing & Heating Co., $9025; J. A. Scollay, $11,995. Noted Mar. 18.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until noon, Apr. 2, by the Board of Trustees, Bellevue and Allied Hospitals, for lighting fixtures in Pavilions "I" and "K" of the new Bellevue Hospital, 26th to 29th St., First Ave. to East River, Borough of Manhattan. John W. Brannan, M. D., is Pres. Bd. of Trustees.

Wellsville, N. Y.—Press reports state that the Wellsville Electric Light, Heat & Power Co. has accepted the offer of the village to purchase the local plant. H. B. Sweet, Utica, is preparing plans for remodeling and improving the plant.

Jersey City, N. J.—It is reported that the City Commission has decided to install a conduit system to eliminate overhead wires and poles. The estimated cost of the work is $1,500,000. Charles A. Van Keuren is City Engr.

+Newark, N. J.—The Public Service Electric Co. has awarded contracts for equipment for its new power plant on the Passaic River at Point-no-Point, at a total cost of about $125,000, to the following: Steel foundations for turbines, PENNSYLVANIA STEEL CO.; four underfeed stokers and four economizers, B. F. STURTEVANT CO.; cast iron motor-operated valves for low pressure condensers, PITTSBURGH VALVE, FOUNDRY & CONSTRUCTION CO.; steel valves for high pressure steam lines, PRATT & CADY CO.; boiler feed pumps, H. R. WORTHINGTON CO. Noted July 2, 1914; Jan. 14 and Feb. 11, 1915.

Perth Amboy, N. J.—The City Council has engaged Runyon & Carey, 845 Broad St., Newark, to prepare plans for the construction of the proposed municipal electric-light plant. Noted Nov. 19 and Jan. 21.

+Trenton, N. J.—The Public Service Gas Co. has awarded the contract for the construction of a two-story addition to its gas generating plant on New York Ave. to W. J. & J. H. MORRIS.

Everett, Penn.—It is reported that the citizens of Everett are promoting the installation of a municipal electric-light plant. Service is now furnished by the Everett Light, Heat & Power Co.

Baltimore, Md.—Plans have been prepared by Charles L. Reeder, 921 Equitable Bldg., for additions and improvements to the power plant and laundry of the Hebrew Hospital. The work will include the construction of an addition to the power house, new boilers, engines, laundry machinery, etc.

Westminster, S. C.—The Town Council is reported to have authorized the issue of $16,000 in bonds, the proceeds of which will be used for the installation of a municipal electric-light plant. Noted Aug. 14, 1914.

St. Petersburg, Fla.—It is reported that the citizens will be asked to vote on the question of installing a municipal electric-light plant. If the vote is favorable, a bond issue of $150,000 for the purpose will be submitted to the voters.

Jackson, Miss.—At a special election held Mar. 13, the citizens defeated a bond issue of $160,000 for the construction of a municipal electric-light and power plant. M. L. Culley is City Engr. Noted Oct. 8 and 22, 1914, and Feb. 25, 1915.

Clay, Ky.—It is reported that the Clay Light & Ice Co. will build a transmission line to Dixon, a distance of about eight miles. An additional boiler and generator will be installed. C. R. Clark is Supt.

Cincinnati, Ohio—It is reported that Walter H. Hutzler, 116 West Elder St., and associates, will apply to the City Council for a franchise to establish and operate an electric-light plant in the vicinity of Findlay Market. It is stated that $50,000 has already been subscribed for the construction of a steam-driven plant.

Cleveland, Ohio—The city plans to build a new municipal power station at 7616 Woodland Ave. S. E., to cost about $25,000. It will be two stories, of reinforced concrete and brick, and will contain 4914 sq.ft. of floor space.

Peebles, Ohio—The Village Council is considering plans for the establishment of a municipal electric-light plant, for the construction of which bonds for $11,500 have been issued.

East St. Louis, Ill.—(Official)—Contracts will be awarded about Apr. 19 for the construction of a two-story high school. Low bids were received as follows: Plumbing, McEvilly & Flynn, East St. Louis, $10,520; heating, Peters, Eichler Co., St. Louis, Mo., $31,007; electrical work, F. E. Newberry Electric Co., St. Louis, $11,930.

Manitowoc, Wis.—It is reported that the Oslo Power & Light Co., Manitowoc, has increased its capital stock from $5000 to $30,000 for the purpose of rebuilding its hydro-electric plant which was damaged by floods a few months ago. A. O. Anderson is Pres.

Rose Hill, Iowa—It is reported that bids are being received by A. L. Zink, representing the Town Council, for the construction and operation of an electric-light plant.

+West Bend, Iowa—The Town Council has awarded the contract for the installation of an electric-light plant to the ALAMO ENGINE & SUPPLY CO., 1122 Farnam St., Omaha, Neb., at $8270. W. H. Grover, Ames, Iowa, is Engr.

Hibbing, Minn.—Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., has recommended to the Water and Light Board improvements to the electric-light plant and water-works to cost from $100,000 to $157,000. E. D. Hawley is City Engr. Noted May 14 and June 11, 1914, Feb. 4, 1915.

Edgar, Neb.—The citizens have voted in favor of issuing $13,500 in bonds for the purpose of constructing a municipal electric-light plant. V. S. Hollister, Lincoln, is Engr.-in-Charge.

+Kansas City, Mo.—The Board of Education has awarded the contract for heating equipment in the William Cullen Bryant School to the WOODLING HEATING & VENTILATING CO., Reliance Bldg., Kansas City, at $15,847. For heating equipment in the Mark Twain School, the contract was awarded to the CAPLAN GALVANIZED IRON CO., St. Louis, at $14,375.

+Poplar Bluff, Mo.—The City Council has awarded the contract for the construction of the municipal electric-light plant to the FULLER-COULT CO., Chemical Bldg., St. Louis. Bonds for $75,000 will be sold for the purpose. Noted Apr. 2, 1914.

Austin, Tex.—George S. Westerfield, Engr., and Charles T. Boelhawe, Arch., who were employed to ascertain the cost of installing a new heating plant, power plant, elevators, sanitation and ventilating systems, telephone exchange, and other improvements in the State Capitol, have submitted a report to the Legislature. Their recommendations entail an expenditure of about $450,000. An appropriation for the purpose will probably be made.

Mission, Tex.—See item under "Water Supply—Irrigation."

Walter, Okla.—The town has abandoned the idea of installing a municipal electric-light plant, and is negotiating with the Comanche Light & Power Co to furnish electrical service.

+Yale, Okla. — See item under "Water Supply — Irrigation.

Oakland, Calif.—The Pacific Gas & Electric Co. has taken out permits for the construction of a one-story boiler house and a one-story generator house, to be located at the plant at First and Market St. They will cost $5000 each. F. A. Leach, Jr., Oakland, is Dist. Mgr.

Venice, Calif.—It is reported that the Abbot-Kinney Co. will equip an electric generating plant at a cost of about $70,000. J. B. Griffen is Engr. for the company

Montreal, Que.—Bids will be received until noon, Apr. 6, by the Board of Control for the installation of a street-lighting system on St. Catherines and Bleury St. to cost about $40,000.

Tara, Ont.—It is reported that the City Council is considering the installation of a hydro-electric light and power plant. W. J. Taylor is Clk.

BRIDGES

Claremont, N. H.—The Board of Selectmen has passed a resolution calling for a bond issue of $26,000 to be used for building steel bridges across the Sugar River at Broad St. and the Lower Village.

New York, N. Y.—(Borough of Bronx)—It is reported that plans are being prepared for a new bridge over Westchester Creek at East 177th St. It will have two steel spans and a double-leaf bascule span with granite abutments. The estimated cost is $170,000. F. J. H. Kracke, Municipal Bldg., is Comr., Dept. of Bridges.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., Apr. 1, by F. J. H. Kracke, Comr., Dept. of Bridges, for wood paving blocks for the Department of Bridges.

Rochester, N. Y.—Press reports state that the Buffalo, Rochester & Pittsburgh Ry. will build six new steel bridges this year. One will be a viaduct over the tracks of the Erie R.R. at Silver Lake Junction, and the others will be located on the Buffalo division. About 1163 tons of steel will be required. E. F. Robinson, Rochester, is Ch. Engr.

Hightstown, N. J.—It is reported that the Common Council and the Board of Chosen Freeholders of Mercer County are negotiating for rebuilding the Main St. Bridge. It is estimated to cost $20,000. Noted Jan. 28 and Mar. 11.

★+Mt. Holly, N. J.—The Boards of Chosen Freeholders of Burlington and Atlantic Counties have awarded the contract for repairing the Mullica River Bridge on Chestnut Neck Rd. between the two counties, to EDWARD FAY & SON, Philadelphia, at about $69,000. Noted Feb. 18 and Mar. 11.

Newark, N. J.—(Official)—Bids will be received until 3 p.m., Mar. 30, by a joint committee of the Boards of Chosen Freeholders of Essex and Hudson Counties, at the Essex County Court House, Newark, for rebuilding the fenders of the center and rest piers of the Jackson St. Bridge between Jackson St., Newark, and Fourth St., Harrison.

West New York, N. J.—The New York Central R.R. plans to build a viaduct over its tracks opposite the West New York Ferry. James L. Wolfe is Town Clk.

+Albany, Penn.—The Philadelphia & Reading Ry. has awarded the contract for the construction of a reinforced-concrete bridge near Albany to the READING CONTRACTING CO., Reading. The bridge will be 189 ft. long and 15 ft. wide.

Emaus, Penn.—Plans have been prepared by E. R. Wenner, Borough Engr., for the construction of a new bridge at Chestnut St.

+West Chester, Penn.—(Official)—The contract for repairing two bridges over Brandywine Creek, south of Chadds Ford, has been awarded to GEORGE DALE, 102 East 12th St., Wilmington, Del. Noted Mar. 4.

+York, Penn.—(Official)—The Board of County Commissioners has awarded the contract for the construction of a bridge over the south branch of Muddy Creek on the road between Muddy Creek and Gatchelville to M. D. PORMAN, York. Noted Mar. 4.

Elkins, W. Va.—(Official)—We are advised by Thaddeus Pritt, Clk. of Elkins County, that the opening of bids for seven bridges, advertised for Mar. 1, was postponed, and will be readvertised about Apr. 1. Noted Jan. 28.

Durham, N. C.—(Official)—Bids will be received until 2 p.m., Apr. 6, by P. C. Crompton, Audr. of Durham County, for the construction of four steel bridges with concrete substructures. The estimated cost is $5000 each. Noted Mar. 18.

Sumter, S. C.—Sumter County will issue $10,000 in bonds, the proceeds of which will be used for bridge construction. P. M. Pitts is Chn. of County Comrs. R. L. McLeod is Clk.

Clearwater, Fla.—(Official)—Bids will be received until Apr. 6 by the Board of Commissioners of Pinellas County for furnishing corrugated iron culverts of various sizes. Clements McMullen is County Highway Engr.

Jasper, Ala.—(Official)—All bids received Mar. 15 by the Commissioners of Walker County for the construction of four bridges over the Black Warrior River at Cordova, Sipsey Fork, Mulberry and Town Creek, have been rejected. Charles M. Sartain is Chn. of Comrs. Noted Mar. 4.

Baton Rouge, La.—Bids will be received until noon, Apr. 13, by the Police Jury of East Baton Rouge Parish for the construction of a steel bridge across Baton Rouge Bayou on the Irene Rd., and for a wooden bridge over the Amite River on Benton Ferry Rd.

Cambridge, Ohio—(Official)—Bids will be received until noon, Apr. 13, by the Board of Commissioners of Guernsey County for building abutments for the Dewey Ave. Bridge over Wills Creek in the City of Cambridge. T. C. White is County Audr.

Canton, Ohio—(Official)—Bids will be received until 10 a.m., Apr. 14, by the Board of Commissioners of Stark County for the construction of the James Steele reinforced-concrete bridge over Pigeon Run on the Massillon-Millersburg Rd. in Tuscarawas Township. C. L. Stoner is Clk. of Comrs.

+Harrisburg, Penn.—The Cumberland Valley R.R. Co. early in the year sent out invitations to about 40 contractors to bid on a 4300-ft. reinforced-concrete double track roadway. One trackway is to be built this season which involves the placing of 40,000 cu.yd. of concrete. The foundations were built by the railway company last year. The work involves enveloping 23 old piers and building 22 new ones. There will be 23 arches of 77 ft. and 22 arches of 74 ft. 6 in. with 20 ft. rise. Sand will cost $1.08 per net ton delivered and stone $1. The number of bidders, and the size of the work make the figure submitted of unusual interest and they are reproduced herewith. The contract was awarded to ROBERT GRACE CONTRACTING CO., 514 Smithfield St., Pittsburgh, Penn., at $270,290.

Danville, Ind.—(Official)—Bids will be received until 10 a.m., Apr. 19, by the Commissioners of Hendricks County for the construction of seven steel, and nine concrete bridges. L. W. Borders is Audr.

Scottsburg, Ind.—(Official)—Bids will be received until 1 p.m., Apr. 5, by the Commissioners of Scott County for the construction of several concrete bridges and culverts and two steel bridges. Robert Blunt is Audr.

Winchester, Ind.—Bids will be received until 10 a.m., Apr. 1, by Charles E. Tillson, Audr. of Randolph County, for 31 bridges, abutments and repairs.

Custer Park, Ill.—(Official)—Bids will be received until 2 p.m., Apr. 13, by the Bridge Committee and Superintendent of Highways of Will County for the construction of four reinforced-concrete bridges in Custer Township. W. H. Smith, Joliet, is County Supt. of Highways. Alex Cooper is Clk. of Custer Township.

+McLeansboro, Ill.—(Official)—The Highway Commission of Hamilton County has awarded the contract for the construction of a reinforced-concrete bridge in Mayberry Township to the VINCENNES BRIDGE CO., Vincennes, Ind., at $4273. The Engineer's estimate was $5600. Five other bids were received. Gregg Garrison is County Supt. of Highways. Noted Feb. 25.

Murphysboro, Ill.—(Official)—Bids will be received until 2 p.m., Mar. 31, at the Court House, Murphysboro, for the construction of the Rattlesnake Ferry Bridge between Grand Tower and Pomona Townships, Jackson County. It will be a 180-ft. steel span on reinforced-concrete abutments. The estimated cost, including piling, is $13,600. Thomas G. Dunn, Gorham, Ill., is County Supt. of Highways. Noted Mar. 4.

De Pere, Wis.—It is reported that a special election will be held Apr. 6 to vote on the question of issuing $15,000 in bonds, the proceeds of which will be used for rebuilding the drawbridge at Main Ave. and George St. The estimated cost of the work is $21,000, of which $6000 is now available.

BIDS FOR THE DOUBLE-TRACK CONCRETE ARCH OF THE CUMBERLAND VALLEY R.R. CO. BRIDGE OVER SUSQUEHANNA RIVER

Firm	* Concrete Masonry, 56,000 Cu.Yd., Price	Waterproofing, 102,000 Sq.Ft., Price	Conduit, 7,800 Lin.Ft., Price	Manhole Frames and Covers, 21 Sets, Price	Removing Old Masonry, 100 Cu.Yd. (Est.), Price	Total
Robert Grace Contracting Co.	$4.73	$0.025	$0.30	$20.00	$1.00	$270,290
E. Purcell	4.74	0.02	0.40	8.00	2.00	270,968
W. W. Boxley & Co	4.77	0.05	0.60	25.00	20.00	279,425
Booth & Flinn, Ltd	4.93	0.025	0.50	13.00	5.00	283,303
T. L. Eyre	5.12	0.04	0.30	10.00	3.00	293,650
O'Hagan & Lake, Inc	5.10	0.07	0.60	20.00	2.00	298,040
Hardaway Contracting Co	5.45	0.06	0.45	20.00	10.00	316,250
MacArthur Bros. Co	5.75	0.04	0.60	14.00	10.00	332,054
Walter F. Patterson	5.89	0.02	0.29	18.00	2.50	334,770
Charles McDermot Co	5.93	0.03	0.40	40.00	3.25	339,425
Thomas Sheahan	6.00	0.035	0.35	22.00	1.10	342,872
The Dravo Contracting Co	6.05	0.026	0.31	28.50	1.20	344,588
The H. C. Brooks Co., Inc	5.90	0.10	0.50	40.00	3.00	345,640
Frazer, Brace & Co	6.10	0.035	0.60	20.00	4.00	350,670
H. S. Kerbaugh, Inc	6.30	0.03	0.40	50.00	10.00	361,030
Patterson-Moran Co	6.50	0.04	0.50	25.00	3.00	372,805
The National Foundation & Engineering Co	6.05	0.12	3.00	30.00	5.00	375,570
H. Denburger Construction Co	6.50	0.035	1.00	21.00	3.00	376,111
John Goll & Co	6.90	0.05	0.50	35.00	5.00	396,635
Bates & Rogers Construction Co	7.00	0.035	0.15	70.00	5.00	398,710
Smith-McCormick Co	6.94	0.05	0.50	50.00	5.00	399,190
The Dunn-McCarthy Co	7.00	0.05	0.25	12.00	1.50	399,452
Sanford & Brooks Co	7.11	0.05	0.10	25.00	5.00	405,065
Rinehart & Dennis Co., Inc	7.00	0.15	1.00	25.00	2.00	415,825
The Snare & Triest Co	7.28	0.05	0.60	30.00	10.00	419,090
Merrill-Ruckgaber Co	7.35	0.03	0.50	20.00	3.50	419,330
Sparks & Evans	7.50	0.045	0.33	38.00	2.00	428,162
E. E. Smith Contracting Co	7.50	0.03	0.50	65.00	6.00	428,925
Arthur McMullen	7.50	0.03	0.75	20.00	20.00	431,330
Degnon Contracting Co	7.50	0.04	0.75	60.00	12.00	432,390
Raymond Concrete Pile Co	7.67	0.03	0.85	35.00	3.00	440,245
James McGraw Co	7.70	0.06	0.52	40.00	5.75	442,791
F. M. Talbot Co	7.95	0.0225	0.60	35.00	2.50	453,160
Hyde, McFarlin, Burke Co	8.00	0.25	0.75	35.00	2.50	480,335
The Jobson-Gifford Co	8.45	0.025	0.40	70.00	3.00	480,640
A. L. Anderson & Bros., Inc	9.25	0.10	0.50	50.00	3.00	533,450
Geo. H. Curtis Construction Corporation	9.25	0.10	0.60	50.00	6.00	534,530
L. H. Focht & Son	11.17	0.035	0.45	40.00	2.50	633,690

* Cement, reinforcing steel and anchor bolts to be furnished on cars, at site of bridge by the railroad company.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Apr. 14, by William Leimann, City Audr., for the purchase of a bond issue of $165,000, the proceeds of which will be used for the construction of a viaduct over Kemper Lane at the Park Ave. entrance to Eden Park. Noted Oct. 22, Nov. 26 and Dec. 10, 1914.

Cleveland, Ohio—(Official)—Bids will be received until 10 a.m., Apr. 14, by the Board of Commissioners of Cuyahoga County for the construction of a concrete bridge, Report No. 3487. W. A. Stinchcomb is County Surv. E. G. Krause is Clk. of Comrs.

+Lima, Ohio—The Board of Administration has awarded the contract for the construction of the Pine St. bridge to the BURKE CONSTRUCTION CO., Newcastle, Ind., at $20,363. There were 20 bids submitted, ranging from that of the successful contractor to $29,765. The engineer's estimate was $28,232. Chester & Fleming, Union Bank Bldg., Pittsburgh, Penn., is Engr.-in-Charge. Noted Feb. 11 and 25.

Youngstown, Ohio—(Official)—We are advised by F. M. Lillie, City Engr., that the railways interested in the construction of the East Federal St. Viaduct have appealed to the higher courts from the recent decision that the bridge shall be built according to plans prepared by the City Engineer, rather than those of the railway engineering forces. The estimated cost is $500,000. Noted Mar. 18.

Crawfordsville, Ind.—The Board of Commissioners of Montgomery County will advertise about May 1 for bids for the construction of six reinforced-concrete flat top bridges. M. L. Nees is County Surv.

Des Moines, Iowa—(Official)—Bids will be received until noon, Mar. 29, by the Board of Supervisors of Polk County for the construction of four reinforced-concrete bridges. H. L. Barquist is Chn. of the Bd.

+Dubuque, Iowa—The Board of Supervisors of Dubuque County has awarded the contract for the construction of 122 bridges and culverts in the county to J. J. LEONARD, Dubuque, at $36,100.

Dubuque, Iowa—(Official)—Bids will be received until 2 p.m., Mar. 31, by the Board of Supervisors of Dubuque County for the construction of 75 concrete box culverts on the Iowa Post Rd., locally known as the "Hawkeye Highway." John Inghram is County Audr.

Ft. Madison, Iowa—The Board of Supervisors of Lee County has passed a resolution of necessity for the construction of four reinforced-concrete bridges and six reinforced-concrete culverts at an estimated total cost of $15,669.

Lone Tree, Iowa—Press reports state that the Boards of Supervisors of Johnson County, Iowa City, and Louisa County, Wapello, are considering the construction of a $10,000 bridge over the Iowa River about seven miles from Lone Tree, to replace the structure carried away recently by floods and ice floes. The two counties will share the cost equally.

+Marengo, Iowa—The Board of Supervisors of Iowa County has awarded the contract for the construction of 45 county bridges to M. O. BURNETT, Marengo, at about $26,000.

Sibley, Iowa—Bids will be received until 1 p.m., Apr. 7, by G. W. Creighton, Audr. of Osceola County, for the construction of two steel bridges, and 36 concrete bridges and culverts.

Tipton, Iowa—Press reports state that the Board of Supervisors of Cedar County plans to build several concrete bridges this year. The estimated total cost is $22,000.

+Caledonia, Minn.—(Official)—The Board of Commissioners of Houston County has awarded the contract for constructing several bridges to the JOLIET BRIDGE CO., Joliet, Ill., at $6044. Four other bids were received, ranging from $6550 to $8287. E. N. Newhouse is County Audr. Noted Mar. 4.

+Minneapolis, Minn.—(Official)—The Board of Commissioners of Hennepin County has awarded the contract for the construction of a bridge over County Ditch No. 10, Rd. No. 83, to WILLIAM O'SHEA & SONS, 129 East 25th St., Minneapolis. F. E. Haycock is County Surv. Noted Mar. 11.

+Garfield, Kan.—(Official)—The Board of Commissioners of Pawnee County has awarded the contract for the construction of a reinforced-concrete bridge over the Arkansas River at Garfield to the TOPEKA BRIDGE & IRON CO., Topeka, at $12,350. Noted Oct. 22, Dec. 24, 1914, and Feb. 25, 1915.

McCook, Neb.—Bids will be received until noon, Mar. 30, by C. K. Dutcher, Clk. of Redwillow County, for bridge work in the county during the ensuing year.

Columbus, Mont.—(Official)—Bids will be received until 10 a.m., Apr. 12, by the Board of Commissioners of Stillwater County for the construction of five reinforced-concrete bridges, Nos. 9, 11, 12, 13 and 14, ranging from 22 to 95 ft. long. R. W. Barr is County Surv. B. F. Harris is Chn. Bd. of Comrs.

Rockport, Mo.—Bids will be received until 2 p.m., Apr. 12, by J. A. Krusor, Highway Engr. of Atchison County, for bridge work in the county.

Belton, Tex.—The Commissioners Court of Bell County has ordered the construction of two new county bridges, one over Cedar Creek on the Moffat Air Line Rd., and the other on the Belton-Sulphur Springs Rd.

Dallas, Tex.—The Board of City Commissioners has voted to appropriate $22,000 for constructing the east approach of the Commerce St. Bridge. J. M. Preston is City Engr.

+Floresville, Tex.—The Commissioners Court of Wilson County has awarded the contract for the construction of two steel bridges, one over the San Antonio River, and the other over Picosa Creek, to the ALAMO CONSTRUCTION CO., San Antonio, at $10,500.

Robert Lee, Tex.—(Official)—Bids will be received until Apr. 12 by the Commissioners Court of Coke County, for the construction of two county bridges. The estimated cost is $8000. S. B. Kemp is County Judge.

Hoquiam, Wash.—It is reported that bids will be received until Apr. 7 by the Commissioner of Public Works for repairs to the Eighth St. Bridge. C. E. Fowler, Central Bldg., Seattle, is Engr.

Wenatchee, Wash.—The Board of Commissioners of Chelan County has instructed the County Engineer to prepare plans for a steel bridge to be known as the Wenatchee River Bridge. The estimated cost is $35,000, and it is reported that construction will be begun some time during the summer. Fred A. Warren is County Engr.

Fairfield, Calif.—Press reports state that bids for the construction of four bridges on the State Highway in Solano County will be received at the April meeting of the Board of County Supervisors. One bridge will span American Canon Creek near Cordelia, one over Sweeney Creek near Benicia, and one each across Gibson and McCune Creeks near Batavia.

Holtville, Calif.—Bids will be received until 2 p.m., Mar. 29, by M. S. Cook, Clk. of the Bd. of Supervisors of Imperial County, El Centro, for the construction of a reinforced-concrete bridge over the Alamo River on the extension of Sixth St. in the City of Holtville. Noted Feb. 4.

Red Bluff, Calif.—It is reported that the Board of Supervisors of Tehama County is having plans prepared for the construction of a bridge over Sand Slough. The estimated cost is $35,000. W. F. Luning, Red Bluff, is County Surv.

Riverside, Calif.—(Official)—We are advised by A. P. Campbell, City Engr., that, as no appropriation has been made for the purpose, bids for the construction of a bridge over Tequesquite Wash will probably not be asked before next summer, as the yearly budget is made in July. Noted Mar. 4.

Stockton, Calif.—The Board of Supervisors of San Joaquin County is having plans prepared for a bridge across Middle and Old Rivers. The estimated cost is $122,000. Frank E. Quail, Stockton, is County Surv.

Visalia, Calif.—Bids will be received until Apr. 7 by the Board of Supervisors of Tulare County, for the construction of a bridge over Cameron Creek at Mooney Grove. George R. Prestige is County Clk.

Lunenburg, N. S.—Bids will be received until noon, Mar. 27, by E. H. Armstrong, Minister of Pub. Wks., Halifax, for the construction of 277 culverts in Lunenburg County.

Toronto, Ont.—The Board of Control will shortly call for bids for a bridge to be built over Merton St. in connection with the extension of Mt. Pleasant Rd. It will have steel girders on concrete abutments. The estimated cost is $41,000.

Calgary, Alta.—(Official)—We are advised by J. M. Miller, City Clk., that the construction of the Louise Bridge at Ninth St. has been indefinitely postponed. It will be a steel structure costing about $40,000. Noted Jan. 14 and Feb. 25.

The Pulsometer Steam Pump Co., 17 Battery Pl., New York, is having a most satisfactory run of business. According to W. J. Berow, of that company, the amount of business booked during February exceeded that of any month in the history of the company, and that for the first two months of the year was almost as satisfactory. This business does not come from any particular section but is general all over the United States and Canada with a fair amount of export business sprinkled in.

WATER SUPPLY—IRRIGATION

Scarboro, Maine—An election will be held to vote on the question of constructing a water system.

Greenville, N. H.—At a recent election the citizens voted to issue bonds for $18,000, the proceeds of which will be used for the construction of a water system. H. J. Taft is Chn. Bd. of Water Comrs. Noted Apr. 30, 1914.

Troy, N. H.—Bonds for $40,000 have been voted, the proceeds of which will be used for the construction of a water system. Dudley & Sawyer, Manchester, is Engr. Melvin T. Stone is Chn. of Comrs. Noted Nov. 5.

Boston, Mass.—Bids will be received until Apr. 2 by the Public Works Department for laying 5800 ft. of 30-in. high-service water pipe. L. K. Rourke is Comr.

Boston, Mass.—Bid will be received until Apr. 1 for the construction of a tower of Quincy granite around the steel water tower on Mt. Bellevue St., West Roxbury. Dexter Brackett, 1 Ashburton Pl., is Engr.

Cambridge, Mass.—The citizens contemplate installing a filtration plant to filter water from Stony Brook. L. M. Hastings is City Engr. Timothy W. Good is Mayor.

Middleton, Mass.—The Water Commissioners will spend $8000 for laying water mains this summer.

New Britain, Conn.—The city will retain engineers to prepare plans for the construction of the Burlington reservoir. William H. Hall, City Engr., will make an inspection of the reservoir site.

Bellmore, N. Y.—The State Conservation Commission has approved the application made by the Bellmore Citizens' Water Co. for the construction of a water system. Noted Oct. 22.

Elmsford, N. Y.—Plans have been prepared for the construction of a water system but have not as yet been submitted to the Board of Trustees. J. E. Murray is City Clk.

Le Roy, N. Y.—Bonds for $105,000 have been voted by the citizens. The proceeds will be used for the extension of the water system. J. P. Wells, Rochester, is Engr. and C. A. Chapman is Village Clk. Noted Dec. 3 and Feb. 25.

Madrid, N. Y.—A filtration plant and a water tank on a 60-ft. tower will be constructed. The estimated cost is $22,000. A. D. White is Village Pres. Noted Feb. 25.

+New York, N. Y.—(Borough of the Bronx)—(Official)—The contract has been awarded to H. E. FOX CONSTRUCTION CO., 81 East 125th St., at $15,608, for laying a water main across the East River and in 140th St. Noted Mar. 4 and 18.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 3 p.m., Apr. 1, by the Park Board, Municipal Bldg., Manhattan, for laying water mains in Forest Park.

Rochester, N. Y.—The only bid received Mar. 3 by the Board of Contract and Supply for 2350 tons of specials and pipe for the water department was that of the United States Cast Iron Pipe & Foundry Co., at $51,148.

★Atlantic City, N. J.—(Official)—Bids were received Mar. 11 for an 18,000,000-gal. centrifugal pump for the Absecon pumping station as follows: Kerr Turbine Co., $14,317; Dravo-Doyle Co., $17,100; Westinghouse Machine Co., $15,000; Southwark Foundry & Machine Co., $14,000 and Ingersoll-Rand Co., $14,931. Noted Mar. 4.

Jersey City, N. J.—The city is considering the installation of a high-pressure water system for lower Jersey City.

Newark, N. J.—Runyon & Carey, Consult. Engr., Newark, has been instructed by the Essex County Board of Freeholders to revise the specifications for the construction of a water system at the Overbrook Hospital. Noted Dec. 3, Feb. 18 and Mar. 4.

+Allentown, Penn.—The contract for valves for the water department has been awarded to the RENSSELAER VALVE CO., Troy, N. Y.

Barnesboro, Penn.—According to press reports bids will soon be received by the Borough Council for the construction of a reservoir for the municipal water system. The estimated cost is $7000. Noted Oct. 29.

Conemaugh, Penn.—(Official)—Plans have been approved by the State Department of Health for the construction of a storage reservoir and for the installation of a disinfection plant for the Conemaugh & Franklin Water Co.

Dubois, Penn.—Press reports state that C. W. McKnight, Rome, is preparing plans for the enlargement of the reservoir. H. A. Daly is Chn. of Water Comn.

Hellertown, Penn.—(Official)—The State Department of Health has approved plans for additional sources of water-supply and for the construction of a gravity main.

Philadelphia, Penn.—(Official)—The State Department of Health has approved plans for the construction of loop main extensions to the distributing system in the commercial district.

Williamsport, Penn.—(Official)—Plans have been approved by the State Department of Health for making improvements at the wells and for pumping equipment.

+Petersburg, Va.—The contract has been awarded to TUCKER & LAXTON, Charlotte, N. C., at $9100 by the Directors of the Central State Hospital, for installing a filtration plant.

Wheeling, W. Va.—A report will be submitted by the Board of Control on the relaying of the 42-in. intake pipe and for the installation of a coal heating system at the water-works in place of the gas heating system. W. J. Scoggins is Supt. of Water Wks.

Southport, N. C.—Bids will soon be received, according to press reports, for the materials for the construction of water and sewer systems. The J. B. McCrary Co., Atlanta, Ga., is Engr. Noted Feb. 18.

Union, S. C.—Bids will be received until Mar. 30 by the city for making extensions to the water system. About 21,120 ft.

of 8-in., 1600 ft. of 6-in. and 2000 ft. of 4-in. pipe, as well as valves and hydrants will be required. Noted Feb. 4 and Mar. 4.

Dadeville, Ala.—An election will be held to vote on the question of issuing $15,000 in bonds, the proceeds of which will be used for the construction of a water system. W. C. Roeck is City Clk.

Dresden, Tenn.—Bids are being received, according to press reports, for material and machinery for the construction of a water system and electric-light plant. The estimated cost is $27,000. P. Porter, Clinton, Ky., is Engr. Noted Nov. 4 and Dec. 3.

Maryville, Tenn.—R. C. Huston & Co., Exchange Bldg., Memphis, has been retained by the city to prepare plans for the construction of a water system. Bonds for $55,000 have been voted. Noted Apr. 30, 1914, and Mar. 4, 1915.

Spring City, Tenn.—The citizens contemplate constructing a water system.

Alliance, Ohio—Chester & Fleming, Pittsburgh, Penn., has been retained to prepare plans for the construction of an elevated reinforced-concrete tank.

Cleveland, Ohio—Bids will be received until noon, Apr. 2, by A. R. Callow, Comr. of Pur. and Supplies, for excavating Baldwin reservoir.

+Cleveland, Ohio—The contract has been awarded by the Board of Control to the WALSH CONSTRUCTION CO., Davenport, Iowa, at $272,636, for constructing a clear water reservoir.

Coshocton, Ohio—An ordinance, providing for the construction of a 3,000,000-gal. reservoir, has been vetoed by L. N. Staats, Mayor. Noted Mar. 11.

Fostoria, Ohio—Bids will be received until Mar. 31 by E. K. Cunningham, Dir. of Pub. Serv., for the purchase of $65,000 in bonds, the proceeds of which will be used for the construction of a reservoir. Charles Latshaw is City Engr. Noted Sept. 17, 1914, and Jan. 7.

Sandusky, Ohio—(Official)—Bids will be received until noon, Apr. 3, by John J. Molter, Dir. of Pub. Ser., for constructing a 42-in. intake in Sandusky Bay, a concrete intake and crib.

Sebring, Ohio—The water company has retained Chester & Fleming, Pittsburgh, Penn., to appraise the water system in connection with an expert appointed by the city with a view of selling the system.

+South Newburg, Ohio—(Cleveland post office)—The contract has been awarded for constructing a water main in Granger Rd. to WILLIAM SMITH, Cleveland. Noted Dec. 31 and Feb. 18.

+Paoli, Ind.—The contract for constructing a pumping station and reservoir has been awarded to the NORWOOD ENGIGEERING CO., Florence, Mass. Noted Feb. 4.

Chicago, Ill.—Bids will be received until Mar. 26 by the Board of Local Improvements for constructing water mains in North 48th Ave., South May St., South Carpenter St. and in various other streets. E. J. Glackin is Secy.

+★Chicago, Ill.—Bids were received Mar. 12 by the Board of Public Works for erecting five pumping engines at Mayfair pumping station as follows: Filer Stowell, Milwaukee, Wis., $497,900; ALLIS-CHALMERS CO., Milwaukee, Wis., at $448,750 (awarded contract); Holly Mfg. Co., Buffalo, N. Y., $489,679; Hooven, Owens, Rentschler Co., Hamilton, Ohio, $498,700; Nordberg Mfg. Co., Milwaukee, Wis., $464,800, and William Tod Co., Youngstown, Ohio, $629,800. Noted Feb. 25.

+Joliet, Ill.—The contract for constructing a 5,000,000-gal. reservoir has been awarded to H. L. WINSLOW CO., Old Colony Bldg., Chicago, at about $19,500. List of bidders noted Mar. 11.

Menomonee Falls, Wis.—An election will be held Apr. 6 to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for laying water mains, constructing a standpipe and a reservoir. J. W. Cannon is Clk.

Milwaukee, Wis.—Plans will be completed about Mar. 27 by George F. Stall, City Engr., for the construction of a 9-ft. shore tunnel to connect the new Linnwood Ave. intake with the North Point pumping station. The estimated cost is $225,000. Noted Nov. 5 and Mar. 11.

+Milwaukee, Wis.—The contract for laying water mains has been awarded to MICHAEL O'DONNELL, 1215½ Clybourn St., Milwaukee, by the Department of Public Works. Bids were opened Mar. 10. Noted Mar. 4.

+Clear Lake, Iowa—The contract has been awarded to the NATIONAL CO., West Bend, Iowa, for installing a high-pressure filtration plant and for making changes to the pumping system.

+Duluth, Minn.—The contract has been awarded by the City Commission to the UNITED STATES CAST IRON PIPE & FOUNDRY CO., at $28,377 for c.-i. pipe.

+New Ulm, Minn.—The contract has been awarded to J. G. ROBERTSON, St. Paul, at $4755, for installing a deep well pump, 60-hp. motor and for connecting the well with the reservoir pipe line. Noted Feb. 25.

+Burton, Kan.—The contract for constructing a power house for the water-works, engine and motor, pumps, pipe, valves, hydrants, tower and tank has been awarded to the CONNOR CONSTRUCTION CO., 4008 Montgall Ave., Kansas City, Mo., at $20,500. Noted Dec. 24 and Mar. 4.

+Holton, Kan.—The contract for constructing a water system has been awarded to the B. C. S. CONSTRUCTION CO., Kansas City, Mo., at $11,527. Worley & Black, Reliance Bldg., Kansas City, Mo., is Engr. Noted Nov. 5.

+Osborne, Kan.—The contract for constructing a water system has been awarded to the EBY CONSTRUCTION CO., Wellington, at $16,203. E. T. Archer & Co., Kansas City, Mo., is Engr.

+Cook, Neb.—The contract for constructing a water system has been awarded to the ALAMO ENGINE & SUPPLY CO., Omaha, at $12,256. L. H. Frank is Clk.

Sioux Falls, S. D.—A report has been made by Dabney H. Maury, Consult. Engr., Monadnock Blk., Chicago, Ill., to the City Commissioners for the improvement of the water system. The estimated cost is $175,000. Noted Oct. 15 and 29.

★Kansas City, Mo.—(Official)—Bids will be received until 2 p.m., May 5, by J. P. Langan, Pur. Agt., for a steam turbine, reduction gear, centrifugal pump.

Montrose, Colo.—(Official)—The city will advertise about Apr. 19 for bids for the construction of 13,650 ft. of 12-in. and 7600 ft. of 10-in. pipe and for seven miles of 4- to 10-in. c.-i. pipe. J. W. Pinkerton is City Mgr. Noted Feb. 18 and Mar. 11.

Ft. Smith, Ark.—A water system will be constructed in District No. 2 by the Municipal Commissioners. The estimated cost is $28,000. George T. C. Carnall is City Clk.

Malvern, Ark.—Plans, prepared by the J. B. McCrary Co., Atlanta, Ga., have been accepted by the City Council for the construction of a water system and a sewer system. An election will soon be held to vote on the question of issuing $115,000 in bonds for the construction of the systems.

McGehee, Ark.—An election will be held May 1 to vote on the question of issuing $90,000 in bonds the proceeds of which will be used for the construction of water and sewer systems and for an electric-light plant. J. J. Simmons is Mayor.

Mission, Tex.—Hamilton & Horlock, Houston, has been granted a franchise to construct a water system and electric-light plant. The estimated cost is $60,000. Noted Jan. 7.

Timpson, Tex.—Bonds for $17,000 have been voted. The proceeds will be used for the construction of a water system. Noted Aug. 20.

+Yale, Okla.—The contract has been awarded to the REINHART & DONOVAN CO., Oklahoma, for making extensions to the water system and for constructing an electric-light plant. Noted Jan. 21 and Feb. 11.

Pueblo, Colo.—S. F. Reno, Chn. of the Trustees of the North Side Water Works, has made a report on a mountain water supply. An election will be held to vote bonds, the proceeds of which will be used for making the improvement.

Anacortes, Wash.—(Official)—At a recent election the citizens defeated the bond issue for the purchase and improvement of the plant of the water company. Noted Dec. 3 and Jan. 28.

Bellingham, Wash.—Plans have been prepared for the construction of 5000 ft. of concrete conduit, 30-in. diameter, at the intake on Lake Whatcom.

Kent, Wash.—The Council contemplates constructing a 16-in. steel or c.-i. water main, parallel to the present water main on the west side of the hill. The estimated cost is $7000.

Raymond, Wash.—Bids will be received until Mar. 31 by J. E. Elwood, City Clk., for the purchase of $117,500 in bonds, the proceeds of which will be used for purchase and improvement of the system of the Raymond Water Co. Noted Jan. 28 and Mar. 18.

Tacoma, Wash.—P. S. Savidge, Supt. of Water-Wks., advises the connection of the Hood St. reservoir to South Tacoma pumping station. The estimated cost is $90,000.

Dallas, Ore.—An election will be held May 10 to vote on the question of issuing $52,000 in bonds, the proceeds of which will be used for the purchase and improvement of the local water system.

Portland, Ore.—Bids were received by the Water Department for 50,000 ft. of 2½-in. galvanized iron pipe and fittings as follows: Gauld Co., $7379; Peerless-Pacific Co., $7455; Crane Co., $7713; M. L. Kline, $6318 and Marshall-Wells Co., $6723.

Corning, Calif.—(Official)—Bids will be received until 7:30 p.m., Apr. 6, by E. S. Randall, City Clk., for the purchase of $30,000 in bonds, the proceeds of which will be used for the extension of the water and sewer systems. Noted Nov. 26 and Jan. 28.

+Modesto, Calif.—The contract has been awarded to the CHICAGO BRIDGE & IRON WORKS, at $5350, by the City Council for constructing a water tank. Noted Mar. 11.

Yorba, Calif.—(Anaheim post office)—The Yorba Water Co., according to press reports, will spend $100,000 for pumping machinery and for the construction of pipe line. Noted Jan. 15, 1914.

Vancouver, B. C.—Extensions will be made to the water system during 1915 at an estimated cost of $30,000.

SEWERS

Boston, Mass.—Bids will be received until Mar. 26 by the Public Works Department for constructing sewers and drains in Alther St., Roxbury, and in Augustus Ave., Crandall and Fletcher St. and in Monticello Rd., West Roxbury. L. K. Rourke is Comr.

Greenwich, Conn.—Plans are being prepared for the construction of a sewage disposal plant, the estimated cost of which is $180,000. Clyde Potts, 30 Church St., New York, N. Y., is Engr. Albert S. Mead is Clk. of Sewer Comn. Noted Feb. 25.

New Haven, Conn.—Bids will be received until Mar. 29 by F. L. Ford, City Engr., for constructing sewers in Tyler, Peck and Miller St. and in King Pl.

Fredonia, N. Y.—(Official)—Plans, prepared by Frederick Wing, White Bldg., Buffalo, for the construction of a sewer system, have been approved by the State Board of Health. Noted Dec. 10.

Hunter, N. Y.—(Official)—A sewer system will be constructed, plans for which have been approved by the State Board of Health.

+★Mt. Morris, N. Y.—The contract has been awarded to DESIDVEIO & SATTLER, 47 Ward St., Rochester, at $37,317, for constructing a sewer system and a sewage disposal plant. Noted Feb. 18 and Mar. 11.

New York, N. Y.—(Borough of the Bronx)—(Official)—George M. Dunn, 2608 Briggs Ave., was low bidder at $9087, for constructing a sewer in Plimpton Ave. Bids were opened Mar. 16. Noted Mar. 11.

New York, N. Y.—(Borough of Manhattan)—(Official)—The Beaver Engineering Co., 51 Chambers St., submitted the lowest bid at $5000, for sewerage work in 111th St. Bids were opened Mar. 19. Noted Mar. 11.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m., Mar. 31, by Maurice Connolly, Borough Pres., for constructing sewers in Joslin St., Sanford Ave., Steinway Ave., Irving Ave., Decatur St., Brevoort St., Cuthbert Pl., Lefferts Ave., and Audley St.

Pine Bush, N. Y.—(Official)—Plans have been approved by the State Board of Health for the construction of a sewer system.

Port Chester, N. Y.—(Official)—Bids will be received until 8 p.m., Apr. 5, for the construction of a sewer system and sewage disposal plant, estimated to cost $100,000. F. S. Odell, Port Chester, is Engr. R. L. Burns is City Clk.

Ravena, N. Y.—(Official)—The State Board of Health has approved plans for the construction of a sewer system. Morrell Vrooman, Gloversville, is Engr. Noted Dec. 24.

Rochester, N. Y.—Bids will soon be received, according to press reports, by the Board of Contract and Supply, for constructing a sewer tunnel in Main and Front St. The estimated most is $145,000.

Rochester, N. Y.—Plans have been approved by the State Department of Health for constructing the Brighton sewage disposal plant. The estimated cost is $100,000. F. T. Elwood is City Engr. Noted Jan. 21 and Feb. 4.

Wappingers Falls, N. Y.—(Official)—Plans have been approved by the State Board of Health for sewerage work.

Bradley Beach, N. J.—Bids, received Mar. 8 for the construction of an outlet sewer, have been rejected. Bids will be readvertised.

Glen Rock, N. J.—(Ridgewood post office)—The installation of a sewer system and sewage-disposal plant is under consideration.

Hoboken, N. J.—James H. Fuertes, Consult. Engr., New York, N. Y., has submitted plans to the city for the construction of trunk sewers in 11th and 15th St. The estimated cost is $281,552. Noted Sept. 17.

Jersey City, N. J.—(Official)—Bids will be received by the Board of Commissioners until 2 p.m., Apr. 8, for constructing an 18-in. vitrified pipe sewer in Columbia and Germania Ave. M. I. Fagen is City Clk.

Newark, N. J.—The Board of Water Commissioners plans to construct sewers in Fourth Ave., Oraton St., and Telford St. Morris R. Sherrard is City Engr.

✚Allentown, Penn.—The contract has been awarded to GEORGE H. HARDNER, at $11,118 for constructing a storm water sewer in Sumner Ave.

Beaver Falls, Penn.—(Official)—The State Board of Health has approved plans for the construction of Imhoff tanks, disinfection apparatus, pumping station and outfall sewer.

Canonsburg, Penn.—(Official)—Plans have been approved by the State Department of Health for the construction of an outfall sewer, Imhoff tanks and pumping station. Noted Sept. 3.

Emsworth, Penn.—(Allegheny post office)—(Official)—Plans have been prepared and have been approved by the State Department of Health for the construction of a sanitary sewer system.

Kittanning, Penn.—The City Council will retain an engineer to prepare plans for the construction of a sewage-disposal plant.

Monongahela, Penn.—The city will construct a sewer system, estimated to cost $20,000. J. A. Morrow is Engr. Noted Nov. 26.

Plains, Penn.—Plans have been prepared and submitted by Fred Butts, Wilkes-Barre, for the construction of a sewage-disposal plant.

South Brownsville, Penn.—(Official)—The State Department of Health has approved plans for the construction of a sewer system and sewage treatment works.

Turtle Creek, Penn.—(Official)—Extensions will be made to the lateral sewers. Plans have been approved by the State Department of Health.

✚Upper Darby, Penn.—Contracts have been awarded for sewerage work as follows: MARTIN & MILLER, New York, N. Y., $13,500; W. J. McNICHOL, Philadelphia, $48,890; CANTRELL CONSTRUCTION CO., Philadelphia, $34,100 and F. T. BUCKIS, Philadelphia, $22,500. Noted Nov. 5.

Wilmerding, Penn.—(Official)—Plans have been approved by the State Department of Health for extensions to the sewer system.

★Baltimore, Md.—The Elkan-Tufts Construction Co., Macon, Ga., according to press reports, is low bidder at about $100,000, for constructing Gwynn's Run trunk drain, Section No. 1, storm water contract No. 42. Bids opened Mar. 10. Noted Feb. 25.

Laurel, Md.—Bids will soon be received, according to press reports, for the construction of sewer, water and electric-light systems. Harry Stevens, Union Trust Bldg., Washington, D. C., is Engr. The estimated cost is $75,000.

Grantsville, W. Va.—Bonds for $10,000 have been voted, the proceeds will be used for the construction of a sewer system.

Albermarle, N. C.—The citizens contemplate constructing a sewer system.

Walterboro, S. C.—Plans have been prepared by the H. S. Jaudon Engineering Co., Southern Bank & Trust Bldg., Savannah, Ga., for the construction of a sewer system, estimated to cost $13,000. Noted Feb. 18.

Macon, Ga.—Bonds for $30,000 have been voted, the proceeds of which will be used for constructing sewers in the Vineville section. Noted Oct. 8.

Nashville, Tenn.—Lateral sewers will be constructed during 1915 at an estimated cost of $20,000. W. W. Southgate is City Engr.

Lexington, Ky.—The City Commissioners have appropriated $19,000 for the construction of the North Main St. sewer Noted Feb. 11.

Alliance, Ohio—Bids will be received until Apr. 6 by the Director of Public Service for improving North Arch Ave. undergrade crossing, requiring approximately 1530 lin.ft. 42-in. ring brick or segment block storm sewer, 690 lin.ft. 12 to 24-in. storm sewer, 960 lin.ft. 8 and 12-in. sanitary sewer, 1100 lin.ft. 10, 6 and 4-in. water main lowered, 500 sq.yd. sidewalk, 310 sq.yd. brick pavement, 5000 cu.yd. excavation, streets and alleys.

✚Cleveland, Ohio—The contract for the construction of a sewer in West 110th St. has been awarded to JOHN GALLAGHER, at $12,870; for sewers in 102d St., Dove and Reno Ave. to WILLIAM McDOWELL & SONS CO., at $15,600.

Lowellville, Ohio—Bids will be received until Mar. 29 by C. W. Baker, City Clk., for the construction of sewers in Districts Nos. 1 and 2.

Port Clinton, Ohio—The city plans the construction of a trunk line sewer system. The estimated cost is $83,000.

Salem, Ohio—According to local press reports bids will be received until Apr. 7 for the purchase of $10,000 in bonds the proceeds to be used in completing the intercepting sewer system.

Salem, Ohio—Bids will be received until Apr. 9 for the construction of a sanitary sewer in McKinley Ave. The approximate quantities are: 2220 ft. 8-in. and 2974 ft. 10-in. pipe, ten manholes, one flush tank, and 4058 cu.yd. of excavation.

Springfield, Ohio—The citizens will vote Apr. 6 on the question of issuing $50,000 in bonds, the proceeds of which will be used for the construction of main sewers and a sewage disposal plant.

Attica, Ind.—Bids will be received until Mar. 29 by Weil Light, City Clk., for the construction of 1850 ft. of main sewer and 15,000 ft. of lateral sewer. Daniel R. Young is City Engr.

Indianapolis, Ind.—(Official)—The city has decided to proceed with the construction of a permanent sewage disposal plant. B. J. T. Jeup, City Engr., and Arthur W. Cole, Purdue University, will design the pumping station and building. Arrangements have also been made to have the plans reviewed by George W. Fuller, New York, N. Y. The estimated cost is $2,000,000.

✚Detroit, Mich.—Contracts for the construction of a sewer system on Belle Island Park, including treating plant, pumping plant and manholes have been awarded as follows: Section A, JAYNES & AFFELT; Section B and C, GEORGE R. COOK; Sections D. E. F. G. H. and I, WILLIAM BLANCK & CO. Total estimated cost, $90,000. Noted Dec. 24.

Flint, Mich.—Bids will be received until Apr. 1 by D. E. Newcombe, City Clk., for the construction of a storm sewer in Oakland St. to Flint Rd.; also for a sewer in Mathewson St. The Council has retained W. C. Hoad, Sanitary Engr., University of Michigan, to plan a comprehensive sewerage system.

Grand Rapids, Mich.—W. C. Hoad, University of Michigan, and A. J. Decker, Sanitary Engr., are making a report on sewage disposal. Professor Hoad writes that plans will follow later. The estimated cost of the project is $2,000,000.

Maywood, Ill.—Bids will be received until Apr. 1 by the Board of Local Improvements for the construction of 2½ miles of concrete and vitrified tile pipe outlet sewer; also for 5½ miles of 12- and 15-in. lateral sewers. Robert E. Williams, 118 North La Salle St., Chicago, is Engr.

Madison, Wis.—The City Council is expected to adopt the plans already approved by the Street Committee for the construction of sewer systems for Fair Oaks and West Lawn Heights. The estimated cost is $150,000.

Sheboygan Falls, Wis.—The Common Council will receive bids until Mar. 27 for the construction of sanitary sewers in Monroe St., about 1980 ft.

✚Ames, Iowa—Press reports state that the contract for the construction of sanitary sewers has been awarded to the MOORE SEIG CONSTRUCTION CO., Waterloo, at $8879.

Grinnell, Iowa—Bids will be received until 7:30 p.m., Mar. 31, by A. C. Harriman, City Clk., for the construction of 69,000 ft. of 8- to 24-in. sanitary sewers; also sedimentation tank, filters and sludge bed. The Iowa Engineering Co., Clinton, Iowa, prepared the plans.

Mt. Ayr, Iowa—The city plans to install a sewer system to cost about $30,000. E. T. Archer & Co., New England Bldg., Kansas City, Mo., is Engr.

✚Onawa, Iowa—The contract for the construction of main outlet sewer and purification plant of the new sewer system has been awarded to O. B. REYNOLDS, Council Bluffs, at about $12,000.

Postville, Iowa—Bids will be received by the City Clerk about Apr. 1 for the construction of a sewer system to cost $25,000. The Aetna Engineering Bureau, Chicago, Ill., prepared the plans. Noted Oct. 8, Nov. 12 and Jan. 21.

Minneapolis, Minn.—Press reports state that plans are being prepared by the city for the construction of sewers during 1915 which will cost $1,000,000. Carl Illstrum is Sewer Engr.

✚St. Paul, Minn.—Press reports state that the contract has been awarded for the construction of the Front-McKenty sewer system to E. T. WEBSTER, at $53,434.

St. Paul, Minn.—The Council, Mar. 12, adopted an order authorizing the construction of the Payne-Edgerton sewer system. Estimated cost, $44,584. The Council is also considering the construction of a sewer in Goodrich Ave. from Finn to Cleveland Ave.

+Osborne, Kan.—The contract for the construction of a sewer system has been awarded to the EBY CONSTRUCTION CO., Wichita, at $16,203. E. T. Archer & Co., New England Bldg., Kansas City, Mo., is Engr.

Bridgeport, Neb.—The city has disposed of a bond issue of $12,000, the proceeds of which will be used for the construction of a sewer system.

Broken Bow, Neb.—An election will be held on Apr. 6 to vote a bond issue of $14,500 the proceeds to be used to construct a sanitary sewer system. H. E. Thompson is City Clk.

Anaconda, Mont.—Press reports state that bids will be received early in April for the construction of a sewer system in Improvement District 177, recently created by the Council. The estimated cost is $130,400.

Belgrade, Mont.—The Town Council plans to construct a trunk line sewer system estimated to cost between $12,000 and $14,000. The proposition will be submitted to the citizens for approval on Apr. 5.

Roundup, Mont.—Bids will be received until 8 p.m., Apr. 5, for the following sewer construction: 3208 ft. 12-in. pipe; 350 ft. 12-in. pipe including Y's, 2957 ft. 10-in. pipe; 13,712 ft. 8-in. pipe; 44 manholes; 14 flush tanks with Miller automatic syphon and necessary Ys; 540 cu.yd. of excavation; 167 cu.yd. gravel filler; 55 cu.yd. of concrete. Total estimated cost, $26,800. Noted Sept. 1, Oct. 29 and Jan. 7.

Siloam Springs, Ark.—The City Council has passed a resolution authorizing the installation of a sewer system. The estimated cost is $50,000. Winters & Dove is Engr. O. P. Maxwell is Chn. of Council.

Cleburne, Tex.—Press reports state that on Mar. 6 the citizens voted favorably on the proposition to issue $180,000 in bonds for the construction of a sewer system. Noted Oct. 8.

Ferris, Tex.—The city has issued bonds for $16,000, the proceeds to be used in constructing a sewer system. It is reported that work will be started soon.

Mission, Tex.—The City Commission will soon call an election to vote on a bond issue of $25,000 for the construction of a sewer system.

El Centro and Imperial, Calif.—Both these cities are considering the construction of an outfall sewer system to New River which will serve the two cities. It would cost Imperial about $70,000. El Centro plans to vote bonds to the extent of $250,000 to provide its share in the construction.

+Santa Barbara, Calif.—The contract for the construction of the reinforced-concrete pipe storm sewer in Sola St. has been awarded to A. L. PENDOLA and E. A. GARLAND, at $10,440.

Montreal, Que.—Appropriations have been made for the construction of sewers in Boulevard Ste. Marie and 6th Ave., Rosemount. The sum of $47,959 for the construction of additional sewers has also been voted. G. A. Janin, is City Engr.

London, Ont.—The Board of Public Works decided to spend $190,000 on storm sewer construction and $78,000 on trunk sanitary sewers this season, as recommended by Willis Chipman, Consult. Engr., Toronto. H. A. Brazier is City Engr.

Niagara Falls, Ont.—An election will be held soon to vote on the construction of the Muddy Run trunk sewer. The estimated cost is $200,000. F. J. Anderson is City Engr. W. J. Seymour is City Clk.

Stratford, Ont.—The ratepayers have voted favorably on the construction of a main sewer. The estimated cost is $72,000.

Toronto, Ont.—Bids will be received until Mar. 30 for the construction of various sewers. Specifications are on file at the office of R. C. Harris, Comr. of Wks., City Hall, Toronto.

Vancouver, B. C.—The city has decided to construct the Clark Drive sewer. The estimated cost is $319,000. A. D. Baer is Ch. Engr.

GARBAGE

Greenville, S. C.—The city plans the construction of an additional garbage crematory.

Norwood, Ohio—The City Council has requested the Service Director to begin the necessary preliminaries for the construction of a garbage incinerator to cost $10,000. Noted Oct. 29, Nov. 12.

Pontiac, Mich.—The National Reduction Co., Cleveland, Ohio, is seeking a franchise from the city for the installation of an incinerator. The estimated cost is $15,000.

Milwaukee, Wis.—The city contemplates the purchase of two motor trucks for the collection of ashes. F. G. Simmons is Comr. of Pub. Wks.

Sarnia, Ont.—Press reports state that the city contemplates the construction of an incinerator. The estimated cost is $15,000.

STREETS AND ROADS

Boston, Mass.—Bids will be received by the Supply Department until Mar. 29 for 60,000 lin.ft. of edgestone and 2500 lin.ft. of granite flagging. D. Frank Doherty is Supt.

Boston, Mass.—Bids will be received until Mar. 29 by the Public Works Department for constructing hassam block pavement on Braintree St., Brighton District. L. K. Rourke is Comr.

Boston, Mass.—Bids will be received until Mar. 29, by the Public Works Department, for the construction of bituminous macadam roadways in Baste Terrace, West Roxbury District, and in South Sydney St., Dorchester District. L. K. Rourke is Comr.

Brookline, Mass.—Bids will be received until Mar. 29, by the Board of Selectmen, for furnishing edgestone and portland cement; also for the construction of coal tar concrete sidewalks. Alexis H. French is Town Engr.

Cambridge, Mass.—The citizens of Cambridge, Belmont, Arlington and Concord contemplate an expenditure of $38,000 for the improvement of Concord Ave. from Harvard Sq., Cambridge, to the Belmont line.

Lynn, Mass.—Bonds for $70,000 have been sold, the proceeds of which will be used for paving various streets.

Southbridge, Mass.—At a recent town meeting $23,000 was appropriated for street paving. Thomas McGovern is Town Engr.

+Worcester, Mass.—A contract for 400,000 gal. of road oil has been awarded to JOHN BAKER, JR., 17 Battery Pl., New York.

+East Providence, R. I.—The Town Council has awarded the contract for paving Taunton Ave. with sheet asphalt to WARREN BROS., Boston, Mass., at $1.68, $1.78 and $1.88 per sq.yd. (variation due to thickness of base).

+New Haven, Conn.—(Official)—A contract for constructing new concrete sidewalks where necessary has been awarded to RICHARD FAULKNER, 162 Read St. Noted Mar. 11.

Stamford, Conn.—Press reports state that the Street Committee plans to improve Shippan Ave. at an estimated cost of $20,000.

Waterbury, Conn.—Bids will be received until 8 p.m., Mar. 30 by the Board of Public Works for 175,000 gal. of 45% asphaltic road oil. William H. Moher, 111 West Main St., is Clk. of the Bd.

Waterbury, Conn.—Bids will be received until 8 p.m., Mar. 30 by the Board of Public Works for building about 1½ miles of earth highway in the eastern part of Morris Township, in the valley of the west branch of the Naugatuck River. The estimated cost is $15,000.

★Auburn, N. Y.—(Official)—Bids will be received until 8 p.m., Apr. 6, by Charles W. Brister, Mayor, for paving Franklin and Chapel St., and Ave. A. For particulars see advertisement under "Contracts to Be Let.

★Albany, N. Y.—(Official)—Bids will be received until 1 p.m. Apr. 14, by Edwin Duffey, State Highway Comr., 55 Lancaster St., for improving highways in various counties. For particulars see advertisement under "Contracts to Be Let."

Long Beach, N. Y.—At the election held Mar. 13 the citizens voted in favor of issuing $200,000 in bonds, the proceeds of which will be used for improving streets.

Newfane, N. Y.—The Town Council plans an expenditure of $11,000 for improving streets.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received Mar. 16 for improving Overing St. from Westchester to Walker Ave. as follows: Samuel Nuger, $5607; Harris Rose, $5995; J. Di Menna, $5615; Simon Russek, Inc., $5625; De Menna & De Blasio, $5282; Cranford Co., Inc., $5658; Burnside Contracting Co., $5125; W. H. Callahan Construction Co., $5249; Di Monna & De Paolo, $5618; Thos. Callahan, $5994. Noted Mar. 11.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received Mar. 18 for (a) 200,000 gal. of coal tar road oil, (b) 200,000 gal. tar road oil, (c) 200,000 gal. asphalt road oil, as follows, price per gal.: Barrett Mfg. Co., 17 Battery Pl., (a) $0.068, (b) $0.063; U. S. Asphalt Refining Co., 90 West St., (b) $0.062; J. Baker, Jr., (c) $0.0364; Atlantic Refining Co., (c) $0.038; Standard Oil Co., (c) $0.032; Warner Quinlan Co., 79 Wall St., (c) $0.032.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 3 p.m., Apr. 1 by the Park Board for 22,000 gal. refined coal tar and 22,000 gal. tar road oil for parks.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received Mar. 16 for improving Holland Ave. from Gun Hill Rd. to East 215th St., as follows: Amana & Lyons, 10 Van Cortland Ave., $9055; J. Di Menna, $10,523; M. J. Sullivan, $9762; De Menna & De Blasio, $10,448; Spadero Contracting Co., $10,555; Simon Russek, Inc., $9813; Andrew Mancini, $10,628; Amana & Sullivan, $10,416; Harris Rose, $9769; Lawrence Contracting Co., $9805. Noted Mar. 11.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Mar. 31 by L. H. Pounds, Borough Pres. for improving Hewes St. from Wallabout Canal to Classon Ave., Classon Ave. from Hewes St. to Park Ave. and Park Ave. from Classon Ave. to Skillman St.

Penn Yan, N. Y.—Press reports state that bonds for $24,000 have been sold, the proceeds of which will be used for paving Elm St.

★Bayonne, N. J.—(Official)—Bids will be received until 8 p.m., Apr. 6, by the City Council for repaving and improving a number of streets. W. P. Lee is City Clk. For particulars see advertisement under "Contracts to Be Let."

Belvidere, N. J.—Bids will be received until 2 p.m., Mar. 31, by the Board of Chosen Freeholders, for constructing 2.91 miles and 5.755 miles of waterbound macadam pavement. T. W. Salmon, Netcong, is County Engr.

Camden, N. J.—The City Council has decided to construct a boulevard 100 ft. wide from Forrest Hill Park to Hadden Ave.

Cape May, N. J.—Press reports state that the City Council voted in favor of spending $15,000 for repaving Washington St.

+Deal Beach, N. J.—The contract for paving Norwood Ave. has been awarded to WILLIAM F. McGOVERN, Trenton, N. J., at $23,927. Noted Jan. 28 and Mar. 11.

+East Orange, N. J.—A contract for 255,000 gal. of non-asphaltic road oil has been awarded to W. S. LOGAN, Newark, at approximately $14,000.

Elizabeth, N. J.—Bids will be received until 2:30 p.m., Mar. 29, for improving Weed Ave. John F. Kenah is City Clk. and Thomas E. Collins is City Engr.

Jersey City, N. J.—The Board of City Commissioners plans to improve Danforth Ave. by paving with belgian block.

Jersey City, N. J.—Plans are being prepared for repaving Grove and Montgomery St. and Communipaw Ave. Henry Byrne is Comr.

Keyport, N. J.—The Borough Council plans to rebuild and improve Broad St. George Cooper, County Engr. of Monmouth County, is making surveys and preparing plans.

Newark, N. J.—(Official)—Bids will be received until 3:15 p.m., Apr. 1, for paving and repaving Central Ave., Margaretta St., Niagara St. The work calls for 3000 sq.yd. of 4-in. wood block and 5000 sq.yd. of mapped reclipped granite pavement. Morris R. Sherrard is Ch. Engr. Bd. St. and Water Comrs.

Newton, N. J.—Bids will be received by the Board of Chosen Freeholders until April 5, for constructing five miles of waterbound macadam on the Newton-Sparta Rd. Harvey Snook is County Engr.

Newton, N. J.—According to press reports bids will soon be received by the Board of Chosen Freeholders of Sussex County for improving the Franklin-Stockholm Rd.

Orange, N. J.—The City Commission contemplates improving Main St. by paving with grouted granite pavement.

Phillipsburg, N. J.—(Official)—Bids will be received until 2 p.m., Apr. 3, by the Board of Commissioners for repaving South Main St. Robert P. Howell is Comr. of Streets and Pub. Imp.

Plainfield, N. J.—Bids will be received by the city until Apr. 5 for improving West Third St. Estimated cost is $10,000. A. J. Gavett is City Engr.

+Allentown, Penn.—(Official)—The contract for rebuilding the turnpike between Macungie and Shimersville in Upper Milford Township has been awarded to J. D. CHRISTMAN, Macungie, Penn. Noted Feb. 18.

Charleroi, Penn.—The City Council contemplates an expenditure of $65,000 for paving.

Connellsville, Penn.—(Official)—Bids will be received until 8 p.m., Apr. 5, for grading, paving and curbing various streets. Charles F. Hirst, Second National Bank Bldg., Connellsville, is City Engr. Noted Mar. 4.

Dravosburg, Penn.—Bonds for $813,500 were sold Mar. 9, the proceeds of which will be used for improving streets.

Monaca, Penn.—An expenditure of $50,000 is contemplated by the citizens for street paving during the year.

+Philadelphia, Penn.—The Department of Public Works has awarded contracts for repairing streets as follows: BARBER ASPHALT CO., repaving Fox St., $9551; repaving Tabor St., $8846; EASTERN PAVING CO., repaving Tioga St., $9051; FRANK CURRAN, paving footways in various sections of the city, $37,450.

★Philadelphia, Penn.—(Official)—Bids were received Mar. 16 by M. L. Cooke, Dir. Dept. of Pub. Wks., for improving Parkway from 19th to 22d St., as follows: McNichol Paving & Construction Co., $151,591; Howard E. Ruch, $152,924; Philadelphia Paving Co., $164,281; Manwaring & Cummins, $165,847. Noted Feb. 25.

Portvue, Penn.—(McKeesport post office)—At the election held Mar. 16 the people voted in favor of issuing $25,000 in bonds, the proceeds of which will be used for improving streets. Noted Mar. 4.

+Baltimore, Md.—The Board of Awards has awarded a contract for constructing footways around various municipal buildings to the ARUNDEL CONSTRUCTION CO., 419 North Carey St., Baltimore.

+Baltimore, Md.—The contract for constructing about 37,000 sq.ft. of pavement in Districts Nos. 2, 3 and 4 has been awarded by the Board of Awards to HARRY L. ELDER, Baltimore.

+Baltimore, Md.—The contract for paving with sheet asphalt several streets in the northwestern and northeastern sections of the city, has been awarded to P. FLANIGAN & SONS, at $94,356.

Boydton, Va.—Bids will be received until Apr. 12 for the sale of $30,000 in bonds, the proceeds of which will be used for improving roads. Noted Feb. 4 and Mar. 4.

+Richmond, Va.—The contract for repairing Carry St. has been awarded to L. LAWSON, Norfolk, at $9368.

Richmond, Va.—Bids will soon be received by the Supervisors of Henrico County for the grading, draining and improving water-bound macadam, on Hermitage Rd., between Richmond City Limits and Bloomingdale, 0.63 miles; also Chamberlayne Ave., Norwood Ave., and Brook turnpike from Richmond City Limits to Solomon's Store, 3.43 miles; grading, draining and improving with gravel surface 3.38 miles New Market Rd.

Charleston, W. Va.—(Official)—Bids will be received until Apr. 10 by L. C. Massey, County Clk., for constructing 17½ miles of hard surfaced road. A. D. Williams is Ch. Rd. Engr.

Dunbar, W. Va.—Press reports state that the Dunbar Land Co., Charleston, W. Va., plans to construct six miles of sidewalks.

+Passagrille, Fla.—A contract for constructing about one mile of sidewalks has been awarded to WEISS & BENDER, Pinellas Park, Fla.

Anniston, Ala.—Press reports state that bids will be received until Apr. 7 by the Commissioners of Calhoun County for improving the Piedmont and Jacksonville Rd.

Birmingham, Ala.—Bids will be received until 3 p.m., Mar. 30, by the Board of Commissioners for paving First Ave. from the end of the viaduct to 41st St. Julian Kendrick is City Engr.

Fort Payne, Ala.—Bids will be received until Apr. 9 by the Commissioners of DeKalb County for surfacing the Collinsville and Dawson Gap Rd. with chert. The estimated cost is $7100.

Gadsden, Ala.—Bonds for $200,000 were sold Mar. 8, the proceeds of which will be used for constructing roads in Etowah County. Noted Sept. 24.

Alexander, La.—C. B. Sweetser, Engr., is preparing plans for the construction of roads in Rapids Parish Road District No. 2. Bonds for $100,000 were recently voted for this purpose. Noted Jan. 7.

Lake Charles, La.—Bids will be received by the Police Jury, Calcasieu Parish, until 11 a.m., Apr. 6, for constructing Highways Nos. 5 and 7. E. C. House is Clk.

Thibodaux, La.—The citizens of Lafourche Parish Road District No. 2 will vote Apr. 22 on the question of issuing $80,000 in bonds, the proceeds of which will be used for hard surfacing the road on the east bank of Bayou Lafourche from Theriot Canal, near Raceland to upper end of Lafourche Parish.

Cincinnati, Ohio—Bids will be received by Philip Fosdick, Dir. Pub. Ser., until noon, Mar. 30, for paving Vine St.

+Cincinnati, Ohio—The Board of Public Service has awarded the contract for paving Orlando Ave. from Harrison Ave. to its southern terminus to the KIRCHNER CONSTRUCTION CO., at $11,364.

Cincinnati, Ohio—Bids will be received by Philip Fosdick, Dir. Pub. Ser., until noon, Mar. 30, for improving Dane Ave.

Cincinnati, Ohio—Bids will be received by the Board of Commissioners of Hamilton County until noon, Apr. 2, for repairing the Loveland-Madeira Rd. in Symmes Township. Fred E. Wesselmann is Pres. of Bd.

Cleveland Heights, Ohio—(Warrensville post office)—Bids will be received by H. H. Canfield, Clk., until noon, Apr. 19, for improving various streets. The F. A. Pease Engineering Co., Marshall Bldg., Cleveland, is Engr.

Columbus, Ohio—Bids will be received until 2 p.m., Apr. 2, by Clinton Cowen, State Highway Comr., for 7.42 miles of road work in Franklin and Prairie Townships.

Columbus, Ohio—Bids will be received by Clinton Cowen, State Highway Comr., until 2 p.m., Apr. 2, for road improvement in Clark County, Section H of Springfield-Washington C. H. Rd. Estimated cost, $26,518.

Columbus, Ohio—Bids will be received by Clinton Cowen, State Highway Comr., Columbus, until 2 p.m., Apr. 2, for the improvement of Brayn Pioneer Rd. in Madison County.

Ironton, Ohio—(Official)—Bids will be received until noon, Apr. 5, by the Commissioners of Lawrence County for the sale of $100,000 in bonds, the proceeds of which will be used for improving and constructing pikes.

Toledo, Ohio—Bids will be received by Charles J. Sanzenbacher, Aur., Bd. of County Comrs., Lucas County, Toledo, until 10 a.m., Mar. 30, for improving and paving required in the repair of all improved roads and parts of roads, according to County Surveyor's report.

Youngstown, Ohio—Bids will be received until Mar. 31 by the Commissioners of Road District No. 1 For the sale of bonds for $66,000, the proceeds of which will be used for road construction.

+Youngstown, Ohio—(Official)—The contract for constructing 8500 lin.ft. of road in Boardman Township has been awarded to I. W. COY, Calla, Ohio, at $8444. Other bids were: James De Jute, Youngstown, Ohio, $10,076; T. J. Seaborn, Youngstown, Ohio, $9001; Walters & Russell, West Austintown, Ohio, $9857; C. J. Chinnock, Warren, Ohio, $10,587; Youngstown Construction Co., Youngstown, Ohio, $11,798.

Danville, Ind.—(Official)—Bids will be received until 10 a.m., Apr. 19 by the Commissioners of Hendricks County for constructing six roads. L. W. Borders is County Audr.

Frankfort, Ind.—(Official)—Bids will be received by the city until 10 a.m., Apr. 1, for the improvement of two streets and one alley with brick, concrete, asphaltic concrete or bituminous macadam involving 13,690 sq.yd. roadway, 41,00 sq.yd. concrete sidewalk, 10,000 ft. curb, 3200 ft. 10- and 12-in. tile sewer and other work. Estimated cost, $38,170. R. H. Boynton is City Engr.

+Indianapolis, Ind.—The Board of Public Works has awarded contracts for paving as follows: REPUBLIC CONSTRUCTION CO., Rural St., at $3.89 per lin.ft.; Bellefontaine St., $2.96 per lin.ft.; MARION COUNTY CONSTRUCTION CO., Caven St., 2.55 per lin.ft.; COLUMBIA CONSTRUCTION CO., Daly St., $2.90 per lin.ft.

Shelbyville, Ind.—(Official)—Bids will be received until 11 a.m., Apr. 7, by the Commissioners of Shelby County for constructing a gravel road in Shelby Township and a crushed stone road in Liberty Township. F. W. Fagel is County Audr.

+Dundee, Mich.—The contract for paving Monroe St. has been awarded to the RICE CONSTRUCTION CO., Wyandotte, Mich., at $7456. Noted Feb. 11.

+Eagle River, Mich.—A contract for constructing 3.58 miles of road in Keweenaw County has been awarded to the SMITH-BYERS-SPARKS CO., Houghton, Mich., at approximately $20,000.

Monroe, Mich—At an election to be held Apr. 5, the question of issuing $20,000 in bonds for macadamizing the Toledo-Monroe Rd., will be submitted to the voters.

St. Johns, Mich.—The citizens of Clinton County contemplate holding an election to vote on the question of issuing $240,000 in bonds for constructing roads.

+El Paso, Ill.—Contracts have been awarded for paving Main and Sycamore St. to I. D. LAIN, Bloomington, Ill., at $31,624 and $13,286 respectively.

+Rushville, Ill.—The contract for paving various streets has been awarded to P. H. TIERNAN, Macomb, at $31,000. Noted Mar. 11.

Springfield, Ill.—(Official)—Bids will be received by the State Highway Commission until 11 a.m., Mar. 31, for State Aid work. William W. Marr is State Highway Comr.

+Springfield, Ill.—(Official)—The State Highway Commission has awarded a contract to the GROHNE CONSTRUCTION CO., Joliet, at $12,866, for road work in Bureau County, Sections A and B. Noted Mar. 4.

Algoma, Wis.—Bids will be received by the Board of Public Works until Mar. 25 for paving five squares on Fourth St. and five squares on Fremont St. with an 18-ft. reinforced-concrete pavement. Frank Chapek is Chn. of Bd.

Dodgeville, Wis.—The Common Council has decided to pave Main St. with an 18-ft. concrete surface. About $10,000 is available for the purpose.

Milwaukee, Wis.—Plans are being prepared for F. G. Simmons, Comr. Pub. Wks., for laying a sandstone block pavement on Grand Ave. from Fourth to Eighth St., to replace present vitrified brick pavement.

Richland Center, Wis.—Bids will be received until Mar. 26 by G. H. Mainwaring, County Highway Comr., for 18,750 sq.yd.

of paving, 12,000 cu.yd. of grading, 4400 lin.ft. of curb and gutter and 1400 ft. of concrete.

Stevens Point, Wis.—W. F. Reichardt, Watertown, Wis., has been retained by the city to prepare plans and specifications for all paving and street improvement work during 1915. Details are not yet available, but approximate requirements are 6000 sq.yd. reinforced-concrete paving.

Clarinda, Iowa—(Official)—Bids will be received until Apr. 8 by T. A. Wilson, City Mgr., for 12,700 yd. of paving. M. G. Hall is City Engr.

+**Clarinda, Iowa**—(Official)—The contract for paving Chestnut, Grant and Water St. has been awarded to J. S. McLAUGHLIN & SONS, Red Oak, Iowa, at $23,195. Noted Jan. 21.

Dubuque, Iowa—Bids will be received until 2 p.m., Mar. 31, by John Inghram, County Audr., for grading and resurfacing with gravel the Iowa Post Road, about 20 miles long.

+**West Liberty, Iowa**—A contract for paving Third, Fourth, Calhoun and Spencer St. has been awarded to C. PETERSON, Kenosha, Wis. Noted Feb. 4.

+**Topeka, Kan.**—The City Commission has awarded contracts for paving as follows: 21 blocks of brick paving, OLSON & SCHMIDT, St. Joseph, Mo., at $78,468; asphalt paving except on 11th St., J. R. RAMSEY, Lawrence, at $57,600; asphalt paving on 11th St., KAW PAVING CO., at $5954. Noted Mar. 4.

+**Columbus, Neb.**—A contract for paving a number of streets with bitulithic has been awarded to JAMES HORRABIN CO., Des Moines, Iowa.

Fargo, N. D.—(Official)—Bids will be received by the city until Apr. 8 for about 45,000 sq.yd. of paving. A. R. Watkins is City Audr. and Frank Anders is City Engr.

Kansas City, Mo.—Bids will be received until Mar. 30 by the Board of Public Works for paving portions of Euclid, Independence, Winchester, and Tracy Ave.; also for 10,000 sq.yd. artificial stone sidewalk and about 12,000 lin.ft. of stone curbing.

Weston, Mo.—Bids will be received until noon, Mar. 27, by the City Council for 8000 cu.yd. of bituminous pavement. Charles E. McCrae, 221 Reliance Bldg., Kansas City, Mo., is Engr.

Cameron, Tex.—Press reports state that bonds for $100,000 have been sold, the proceeds of which will be used for constructing and improving roads in Thorndale District No. 6.

Corpus Christi, Tex.—Bids for paving about sixty blocks of city streets will soon be called for. The proposed improvement will cost about $400,000. Roy Miller is Mayor.

Houston, Tex.—Bids will be received until 10 a.m., Apr. 12 for paving a portion of Main St. The estimated cost is $187,000. E. E. Sands is City Engr.

Pecos, Tex.—Bonds for $100,000 were sold Mar. 8, the proceeds of which will be used for roads in District No. 1, Reeves County.

Port Lavaca, Tex.—An election will be held Apr. 10 to vote on the question of issuing $35,000 in bonds, the proceeds of which will be used to construct roads in District No. 2, Calhoun County.

Sherman, Tex.—An election will be held Apr. 17 to vote on the question of issuing $900,000 in bonds, the proceeds of which will be used for constructing roads.

Thorndale, Tex.—The Commissioners Court of Milam County will soon advertise for bids for the construction of good roads in the Thorndale Road District to cost about $100,00.

Bellingham, Wash.—Bids will be received until Apr. 5 by W. Wallace, Audr. of Whatcom County, for constructing a portion of Highway No. 5. The estimated cost of the work is $50,000.

Concrete, Wash.—Bids will soon be received by the City Council for improving Main St. The estimated cost is $10,800. A. L. Strong is Engr.

+**Port Townsend, Wash.**—The contract for constructing permanent highway No. 2-A has been awarded to JAMES H. COYNE, Port Townsend, Wash., at $8900. Noted Mar. 18.

Seattle, Wash.—Bids will be received until Apr. 12 by A. P. Denton, County Engr. of King County, for constructing the D. C. Mitchell Rd. The estimated cost is $40,000.

+**Tacoma, Wash.**—The contract for grading and paving Mullen St. has been awarded to the McHUGH CONTRACTING CO., at approximately $5000.

+**Portland, Ore.**—The contract for paving Grand Ave., Brooklyn and Karl St. with asphalt has been awarded to WARREN CONSTRUCTION CO., Portland, at $23,024.

Salem, Ore.—Bids were received Mar. 17 and contract awarded by County Commissioners for constructing the Mitchell Point Section, Columbia Highway, in Hood River County as follows: STANDIFER-CLARKSON CO., Northwest Bank Bldg., Portland, Ore., $40,343; Giebish & Joplin, 407-411 Rothschild Bldg., Portland, Ore., $54,427; Porter & Conley, Inc., & Ed. Wren, 219 Lumber Exchange Bldg., Portland, Ore., $47,463; A. Guthrie & Co., Inc., 624 Pittock Block, Portland, Ore., $45,048; Carlson, Chindahl & Co., 322 Fernwell Bldg., Spokane, Wash., $45,077; Elliott Contracting Co., 207 McKay Bldg., Portland, Ore., $47,728; Jeffrey & Bufton, Union Ave., Portland, Ore., $57,252; Robert Lee Ringer, 530 E. 31st St., Portland, Ore., $48,884; Clarence Hoard, Box 216, Victoria, B. C., $54,083; Grant, Smith & Co., 619 Fernwell Bldg., Spokane, Wash., $50,840; Copenhagen Bros., 925 Yeon Bldg., Portland, Ore., $42,722; Taylor & Robbins, 735 Hoyt St., Portland, Ore., $57,856; Transfer Livery Co., Inc., Hood River, Ore., $46,473; Cowlits Bridge Co., Yeon Bldg., Portland, Ore., $46,908; Ryan & Beer, 309 Henry Bldg., Portland, Ore., $45,927.

+**Los Angeles, Calif.**—The CALIFORNIA-ARIZONA CONSTRUCTION CO. has been awarded the contract at $9391 for improving Kenmore Ave. from Sunset Blvd. to Fountain Ave.

Oxnard, Calif.—Press reports state that this city contemplates holding an election for the purpose of voting on the question of issuing $25,000 in bonds for improving streets.

Sacramento, Calif.—Bids will be received until Apr. 5 by the State Highway Commission for improving state highways as follows: Orange County, about four miles; Tulare County, 13½ miles: Yolo County, 8½ miles; Yuba County, three miles. Austin B. Fletcher is State Highway Engr.

+**Stockton, Calif.**—The contract for improving about eight miles of the Upper Sacramento Rd. has been awarded to IVEY & McCLEARY, Lodi. Noted Feb. 25.

+**Tropico, Calif.**—A contract for improving a section of Cypress St. has been awarded to E. A. McCOMBS and J. S. BURKE at approximately $8000.

Amherstburg, Ont.—The City Council plans to pave Richmond St. with concrete, at an estimated cost of $15,000.

New Westminister, B. C.—(Official)—We are advised by J. W. B. Blackman, City Engr., that the paving of Sixth St. from Columbia to Third Ave. and Carnavon St. from Eighth St. to the bridge will be done by day labor. Noted Mar. 11.

INDUSTRIAL WORKS

Hartford, Conn.—Plans are being prepared for the construction of a five-story, 85x145-ft. warehouse at 1419 Main St. for Garber Bros. Estimated cost, $65,000.

Highland Park, Conn.—According to press reports the Case Paper Co., Manchester, Conn., contemplates the reconstruction of its plant recently destroyed by fire. Estimated cost, $200,000.

Stamford, Conn.—The United Skirt Mfg. Co. plans to construct a two-story, 50x80-ft. factory on Beckley Ave. Estimated cost, $10,000. Joseph Gruber is interested.

Waterbury, Conn.—Plans are being prepared for the construction of a four-story, 80x100-ft. addition to the plant of the Scoville Mfg. Co. Estimated cost, $40,000.

Buffalo, N. Y.—The Vacuum Oil Co. has had tentative plans prepared for the construction of an addition to its plant. Estimated cost, $40,000.

+**New York, N. Y.**—(Borough of Brooklyn)—The contract for the construction of a three-story, 41x227-ft. factory near Bergen Beach, for the Atlantic White Lead & Linseed Oil Works, 135 Marshall St., has been awarded to the WILLIAM KENNEDY CONSTRUCTION CO., 215 Montague St. The estimated cost is $80,000.

+**New York, N. Y.**—(Borough of Manhattan)—(Official)—The contract for the construction of a nine-story warehouse on 107th St. near Columbus Ave. for the Chelsea Storage Warehouse Co., has been awarded to McDERMOTT & HANIGAN, INC., 103 Park Ave. Estimated cost, $100,000. Noted Dec. 10.

+**New York, N. Y.**—(Borough of Queens)—(Official)—The contract for the construction of a three-story factory at Blissville, L. I., for the Standard Oil Co., has been awarded to the TURNER CONSTRUCTION CO., 11 Broadway, New York, N. Y.

Rensselaer, N. Y.—William Barnet & Son plans to rebuild its plant recently destroyed by fire. The loss was $300,000.

Watertown, N. Y.—The Winslow Day Co., 430 Court St., contemplates the construction of a three-story, 50x152-ft. reinforced-concrete storage building.

Bridgeton, N. J.—Greenebaum & Co. contemplates the construction of a factory on Elmer St. Estimated cost, $16,000.

Newark, N. J.—Plans are being prepared by the Moyer Engineering & Construction Co., 375 Fulton St., Brooklyn, N. Y., for the construction of an eight-story, 95x123-ft. loft building at Halsey St. and Maiden Lane for the Essex Press. William E. Gilmore is Pres. Estimated cost, $150,000.

+**Newark, N. J.**—SALMOND BROS. CO., 526 Elm St., Arlington, has been awarded the contract for the construction of a one-story, 29x50-ft. concrete factory at 123 Sylvian Ave. for the St. Mongo Mfg. Co. of America, 81 Mt. Prospect Ave. The estimated cost is $15,000.

Allentown, Penn.—According to press reports the Arbogast & Bastian Co. is having plans prepared for the construction of a six-story addition to its plant.

Frankford, Penn.—(Philadelphia post office)—Plans have been prepared by Ballinger & Perrot, Arch., for the construction of a one-story, 50x275-ft. addition to the plant of William & Harvey Rowland, Tacony and Lewis St. Estimated cost, $45,000.

Pittsburgh, Penn.—Plans are being prepared by Hunting & Davis, Century Bldg., for the construction of a seven-story, 60x110-ft. warehouse for the P. H. Butler Co., 1205 Liberty Ave.

Birmingham, Ala.—Preliminary plans are being prepared for the construction of a cotton-seed oil mill for the Union Cotton Oil Co. Estimated cost, $100,000. J. G. Whitfield and George A. Blinn are interested.

+**Memphis, Tenn.**—The contract for the construction of a factory for the Shelby County Oil Mill Co., 450 North Bellevue Ave., has been awarded to FRED B. YOUNG & SONS, at $17,266.

Cleveland, Ohio—Preliminary plans are being prepared by Carl White, Arch., Citizens Bldg., for the construction of a three-story factory for the Morgan Lithograph Co., St. Clair Ave. N. E. and East Third St. Estimated cost, $150,000.

Cleveland, Ohio—Plans are being prepared by Richardson & Yost, Arch., 354 Rockefeller Bldg., for the construction of a three-story, 80x114-ft. factory for the National Telephone Supply Co. The estimated cost is $100,000. Noted Sept. 17.

+**Cleveland, Ohio**—The contract for the construction of an eight-story warehouse at 1278 West Ninth St. for the W. Bingham Co. has been awarded to the CROWELL-LUNDOFF-LITTLE CO. The estimated cost is $600,000.

Salem, Ohio—Preliminary plans are being prepared for the construction of an addition to the plant of the W. H. Mullins Co., manufacturer of steel boat and automobile parts.

Steubenville, Ohio—The Steubenville Stone Co. plans to construct a four-story reinforced-concrete warehouse. Peterson & Clark is Arch.

Uhrichsville, Ohio—Plans are being prepared for the construction of a four-story, 112x160-ft. factory for the American Sewer Pipe Co.

Chicago, Ill.—Plans have been prepared by George F. Poulsen, Arch., for the construction of a one-story, 47x125-ft. factory for the German-American Ball Bearing Mfg. Co. Estimated cost, $12,000.

Chicago, Ill.—The Weller Mfg. Co., 1834 North Kostner Ave., plans to construct a one-story machine shop. R. Kirkpatrick is Arch. The estimated cost is $25,500.

Chicago, Ill.—Bids will be received about Apr. 15 by J. Jones, 110 North Morgan St., for the construction of a warehouse, for the National Biscuit Co. The estimated cost is $250,000.

Chicago, Ill.—Rueckheim Bros. & Eckstein has purchased a site at Sangamon and Congress St. and contemplates the construction of an eight-story factory to cost $200,000.

La Crosse, Wis.—Plans are being prepared for the construction of a one-story, 80x125-ft. addition to the Wisconsin Pearl Button Co. Estimated cost, $20,000. Daniel W. McMillan is Pres.

Madison, Wis.—Plans are being prepared for the construction of a warehouse for the J. I. Case Threshing Machine Co., Racine. Estimated cost, $30,000.

Omaha, Neb.—Plans are being prepared for the construction of a plant for the W. T. Redman Perfect Hollow Wall Concrete Form Mfg. Co. Estimated cost, $100,000.

Kansas City, Mo.—Edwin W. Shields contemplates the construction of a six-story garage with 45,000 sq.ft. of floor space.

✚Kansas City, Mo.—The contract for the construction of a seven-story reinforced-concrete motor car factory for the Studebaker Corporation, Detroit, Mich., has been awarded to the SWENSON CONSTRUCTION CO. Estimated cost, $100,000.

Idaho Falls, Idaho—Plans are being prepared for the construction of an addition to the Utah Idaho Sugar Co. Estimated cost, $75,000. B. R. Smoot is Supt.

Davenport, Wash.—The Banner Meat Co., Davenport, Wash., contemplates the construction of a cold-storage plant. Estimated cost, $10,000.

★Portland, Ore.—Plans have been prepared by Jacobberger & Smith for the construction of a two-story factory for the Coin Machine Mfg. Co. The estimated cost is $25,000. Noted Jan. 28.

Los Angeles, Calif.—Plans are being prepared by John F. Blee, Arch., 509 Union League Bldg., for the construction of a five-story reinforced-concrete warehouse for the Neptune Meter Co., 90 West St., New York.

Juneau, Alaska—Preliminary plans are being prepared for the construction of a factory for the Vendlyssel Packing Co.

FEDERAL GOVERNMENT WORK

Building—Portland, Maine—Bids for constructing the steerage barracks and storehouse at the Quarantine station will be opened at 3 p.m., Apr. 20. Mention of this date was omitted in issue of Mar. 8.

Post Office—Brattleboro, Vt.—Bids were received for the construction of the post office at Brattleboro, (a) using limestone for all stonework except where granite is required, (b) using standstone for all stonework except where granite is required, (c) using granite for all stonework below the first-floor level and marble for all stonework above the first-floor level, as follows: Charles W. Wright, East Lynn, Mass., (a) $99,939, (b) $102,939, (c) $109,039; Potter's Lumber Co., East Liverpool, Ohio, (a) $109,000, (b) $112,000; George B. Wills & Co., New York, (a) $98,675, (b) $99,765, (c) $108,765; W. H. Fissel & Co., New York, (a) $98,300, (b) $103,000, (c) $106,700; Elliott & Kieslich, Burlington, Vt., (a) $131,324, (b) $138,500, (c) $141,000; M. Yeager & Son, Danville, Ill., (a) $104,945, (b) $109,445, (c) $114,945; C. M. Leach, Boston, Mass., (a) $107,771, (b) $109,753, (c) $118,811; E. T. Abbott Construction Co., New York, (a)$94,345, (b) $97,400, (c) $102,900; Westchester Engineering Co., White Plains, N. Y., (a) $96,429, (b) $104,000, (c) $105,929; King Lumber Co., Charlottesville, Va., (a) $109,724, (b) $115,000, (c) $125,000; Colonial Construction & Supply Co., Charlottesville, Va., (a) $119,987, (b) $122,937; Lewis P. Fluhrer Co., New York, (a) $105,533; Wiley & Foss, Fitchburg, Mass., (a) $103,709, (c) $111,309; John Lowry, Jr., New York, (a) $94,870, (b) $97,670, (c) $104,500; George Baker Long, Worcester, Mass., (a) $102,300, (b) $106,300, (c) $111,730; James E. Cashman, Burlington, Vt., (a) $125,297, (b) $125,747, (c) $139,232; Norman Ker Co., New York, (a) $103,400, (b) $104,400, (c) $113,200; Woodbury & Leighton Co., Boston, Mass., (a) $107,878, (b) $109,878, (c) $116,878; Conners Bros. Co., New York, (a) $99,043, (b) $101,500, (c) $108,200. Noted Feb. 11.

Cranes and Bridge—Newport, R. I.—Bids will be received until 11 a.m., Apr. 10, by H. R. Stanford, Chief, Bureau of Yards and Docks, Navy Dept., Washington, D. C., for two 2½-ton 3-motor electric traveling cranes and one movable bridge, delivered and erected at the Naval Torpedo Station, Newport.

Building Improvements—Newport, R. I.—Bids will be received until 11 a.m., Apr. 10, by H. R. Stanford, Chief, Bureau of Yards and Docks, Washington, D. C., for roofing, sheet-metal work, iron work, plumbing, heating, lighting, painting, and wood block pavements for new buildings, at the Naval Torpedo Station, Newport.

★Dredging—New London, Conn.—Bids were received as follows for approximately 100,000 cu.yd. of dredging in the Connecticut River, prices being per cu.yd.: Hartford & New York Transportation Co., Hartford, Conn., 13c., and John A. Seely, 30 Church St., New York, 25c. Noted Feb. 18.

Building—Gloucester, N. J.—Bids will be received until 3 p.m., Apr. 20, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of the receiving building for the Philadelphia Immigration Station at Gloucester. It will be a one-story, frame building, and will cost about $50,000.

✚Retaining Wall—Washington, D. C.—The contract for constructing the concrete retaining wall on the west (16th St.) side of the Meridian Hill Park has been awarded to the BOYLE-ROBERTSON CO., Washington, at $23,397. Noted Feb. 11 and Mar. 18.

★Alterations and Additions to Stable—Fort Monroe, Va.—Bids will be received until noon, Apr. 15, by the Quartermaster, for constructing alterations to casements and addition to Quartermaster Stable, including plumbing and electric lighting.

★Improving Post Office and Court House—Pensacola, Fla.—Bids will be received until 3 p.m., Apr. 29, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for improving the post office and court house at Pensacola.

✚Repairs to Buildings—New Orleans, La.—The contract for making repairs to buildings at the naval station has been awarded to C. A. EURE, Hattiesburg, Miss., at $28,658. Noted Feb. 14 and Mar. 4.

★Manila Bolt Rope—Memphis, Tenn.—Bids will be received until 11 a.m., Apr. 10, by Maj. E. M. Markham, Custom House, Memphis, for furnishing and delivering 62,200 lb. pure manila bolt rope.

★Wire, Wire Strand, Staples, Clips—Memphis, Tenn.—Bids will be received until noon Apr. 10, by Maj. E. M. Markham, Custom House, for furnishing and delivering about 725,000 lb. galvanized wire, silicon bronze wire, wire strand, and staples, and 36,000 wire rope clips.

★Cement—Louisville, Ky.—Bids will be received until noon Apr. 19 by Maj. J. C. Oakes for furnishing and delivering American portland cement for Dam No. 43, Ohio River.

Cement, Limestone, Sand—Ashtabula, Ohio—Bids will be received until 2 p.m., Mar. 31, by the Lighthouse Inspector, Buffalo, N. Y., for furnishing and delivering at Ashtabula Harbor about 1400 bbl. of portland cement, 800 yd. of broken limestone and 500 yd. of sand.

✚Cement—Fort Leavenworth, Kan.—The contract for furnishing 5000 bbl. portland cement has been awarded to the UNION SAND & MATERIAL CO., Kansas City, Mo., at $6725.

✚Canal Work—St. Ignatius, Mont.—The contract for the earthwork on the Pablo Lateral A and sublaterals of the Flathead Project, Mont., has been awarded to A. L. MARKHUS, Polson, Mont., at $16,570. Noted Nov. 12 and Dec. 24.

✚Post Office—Uvalde, Tex.—The contract for the construction of a post office at Uvalde has been awarded to GEORGE W. HINCHLIFF CO., Chicago, Ill., at $52,400. Noted Dec. 17, Jan. 28 and Mar. 4.

Post Office—Ardmore, Okla.—Bids will be received until 3 p.m., Apr. 28, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post office at Ardmore, to be three stories and basement, of brick and stone. The building will cost about $142,000.

Canal Excavation—Grand Junction, Colo.—The following bids were received for about 640,000 yd. of excavation in the vicinity of Grand Junction and Fruita, Colo. The work is divided under seven schedules: Charles Wilhite & Co., Boise, Idaho, (a) Schedule 1, $25,125, (b) Schedule 2, $21,374, (c) Schedule 3, $13,710, (d) Schedule 4, $18,040, (e) Schedule 5, $12,865, (f) Schedule 6, $11,365, (g) Schedule 7, $9115, (h) total, $111,594; King & Son, (f) $13,528; Bate Miller & Co., Springville, Utah, (c) $13,100; Walsh Construction Co., Davenport, Iowa, (a) $22,510, (b) $20,609, (c) $13,555, (d) $16,575, (e) $14,072, (f) $12,422; (g) $9947, (h) $109,692; Reynolds Ely Construction Co., Springville, Utah, (a) $22,890, (b) $19,070, (c) $12,618, (d) $15,785, (e) $12,802, (f) $11,302, (g) $9052, (h) $103,519; Orman Construction Co., Montrose, Colo., (a) $16,180, (f) $14,280; (g) $11,430, (h) $41,891; C. A. Riley & Co., Omaha, Neb., (a) $30,605, (b) $26,859, (c) $17,680, (d) $21,615, (e) $14,065, (f) $12,415, (h) $123,239; Mesmer & Rice, Los Angeles, Calif., (a) $24,706, (b) $19,884, (c) $13,100, (d) $15,876, (e) $12,774, (f) $11,274, (g) $9024, (h) $106,638; Mendenhall, Straw & Bird Co., Springville, Utah, (a) $24,230, (b) $18,092, (c) $11,946, (d) $16,110, (e) $11,536, (f) $10,186, (g) $8161; (h) $100,261; Winston Bros. Co., (a) $23,680, (b) $19,884, (c) $11,500, (d) $18,759, (e) $11,985, (f) $12,085, (g) $9085, (h) $106,978; Maurice A. Wogan, Denver, Colo., (a) $35,816, (b) $32,124, (c) $21,100, (d) $25,486, (e) $14,080, (f) $12,435, (g) $9967, (h) $151,008. Noted Feb. 11.

✚Canal Work—Payson, Utah—The contract has been awarded for the construction of lateral 30 of Division 5, Highline Canal, Strawberry Valley project, to the WASATCH GRADING CO., Salt Lake City, Utah, at $47,084. This work consists of approximately 49,000 cu.yd. of earthwork and 3670 yd. of reinforced concrete and is located near Payson. Noted Jan. 28 and Mar. 11.

✚Pumping Units—Benton City, Wash.—The U. S. Reclamation Service has awarded the contract for furnishing direct pumping units for the pumping plants of the Outlook irrigation district, Sunnyside Unit, Yakima project, to CHARLES C. MOORE & CO., San Francisco, Calif., at $10,611, delivered at station nearest the work.

Post Office—Everett, Wash.—Bids were received for the construction of a post office at Everett, (a) using light-colored limestone for all exterior stonework except where granite is required, (b) using local standstone produced in the State of Washington for all exterior stonework except where granite is required, (c) using light-colored sandstone (exclusive of that produced in the State of Washington) for all exterior stonework except where granite is required, (d) using granite for all exterior stonework, the building to be granite faced, except where brick is indicated on the plans, as follows: Martin & Dugan, Seattle, Wash., (a) $132,900, (b) $132,500, (c) $137,534, (d) $157,500; Sound Construction & Engineering Co., Seattle, Wash., (a) $112,517 ,(b) $112,107, (c) $123,500, (d) $134,500, $137,132; King Lumber Co., Charlottesville, Va., (a) $163,800, (b) $159,400, (c) $170,000, (d) $189,000; M. Yeager & Sons, Danville, Ill., (a) $118,569, (b) $117,957, (c) $125,569, (d) $137,381; Erikson & Larson, Seattle, Wash., (a) $115,138, (b) $114,487, (c) $114,886, (d) $137,325; McAdam

Bros., Everett, Wash., (a) $136,970, (b) $136,460, (c) $137,045, (d) $159,695; Pearson Construction Co., Seattle, Wash., (a) $128,200, (b) $127,600, (d) $154,100; Olsen & Johnson, Missoula, Mont., (a) $105,500, (b) $106,650, (c) $106,300, (d) $129,875; J. B. Cullen Construction Co., Janesville, Wis., (a) $139,961, (b) $140,961, (d) $179,598; Campbell Building Co., Salt Lake City, Utah, (a) $117,500, (b) $117,500, (d) $141,700; Henrickson & Co., Seattle, Wash., (a) $114,344, (b) $109,344, (c) $111,319, (d) $127,344; J. B. Sweatt, Spokane, Wash., (a) $126,453, (b) $126,089, (c) $125,953, (d) $150,683; William H. Maxwell, Bangor, Maine, (a) $133,381, (b) $137,881,, (d) $154,381; Butler Construction Co., Seattle, Wash., (a) $119,900, (b) $110,200, (c) $129,100, (d) $139,500. Noted Feb. 18.

Building—Neah Bay, Wash.—Bids will be received by D. F. Houston, Secy., Dept. of Agriculture, Washington, D. C., until noon, Apr. 27, for the erection of a two-story frame cottage, telegraph office building, at Neah Bay.

+Bungalows—Mare Island, Claif.—(Vallejo post office)—The contract for the construction of two bungalows at the naval station has been awarded to S. J. WEEKS, 331 Eldorado St., Vallejo, at $6975. Noted Feb. 25.

Vessel—San Francisco, Calif.—Bids will be received by the Bureau of Light Houses, Dept. of Commerce, Washington, D. C., until Apr. 27, for constructing the steel light house tender "Cedar," about 1750 tons displacement.

Lumber, Hardware, Roofing Paper—Ketchikan, Alaska—Bids will be received by the Light House Inspector, Ketchikan, until 2 p.m., Apr. 1, for furnishing approximately 55 M ft. spruce, 7 M ft. cedar and 5 M ft. of fir lumber, miscellaneous hardware, roofing paper and steel rail and fittings for Cape St., Elias Light Station.

Pumping Plant—Panama—Bids were received Mar. 17, by Maj. F. C. Boggs, Corps of Engineers, U. S. A., General Purchasing Officer, The Panama Canal, Washington, D. C., for the design, fabrication, delivery and supervision of erection, of a complete pumping plant for Dry Dock No. 1, at the Pacific terminus of the Panama Canal, and for the fabrication and delivery of four flooding valves arranged in pairs, each pair provided with screens and guard valves, provision for screens and guard valves for a twin discharge culvert, cylinders for actuating four sluice valves, said material to be embedded in or supported by the concrete structure of Dry Dock No. 1. The pumping plant will consist of four main pumps, two drainage pumps and one bilge or seepage pump. The water to be handled is salt, weight to be considered 64 lb. per cu.ft., average temperature, 80° F. The main pumps will be required to pump out the dry dock at any stage of the tide. The drainage pumps will be capable of laying bare the floor of the suction chamber at any stage of the tide. The bilge pump will be required to handle salt or fresh water, and will be capable of laying bare the floor of the lowest part of the pump well at any stage of the tide, whether the drainage pumps are running or not. Bids are subdivided as follows: (a) design, fabrication and delivery of all parts (structural, mechanical, electrical and hydraulic), for the pumping plant, in accordance with government specifications; (a-1) same, in accordance with bidder's specifications; (b) design of all parts (structural, mechanical, electrical and hydraulic), and fabrication and delivery of all parts except structural, for the pumping plant, in accordance with government specifications, (b-1) same, in accordance with bidder's specifications; (c) material for valves and accessories, based on the use of water under pressure of approximately 300 lb. per sq.in.; (c-1) same, based on the use of water direct from the mains; (c-2) same, based on the use of compressed air from compressor plant. The bidders were: Alberger Pump & Condenser Co., 140 Cedar St., New York, N. Y., (a) $147,845; Allis-Chalmers Manufacturing Co., Milwaukee, Wis., (b-2) $179,000; Hanscom Construction Co,. Boston, Mass., (a) $153,172, (b) $143,676; C. C. Moore & Co., San Francisco, Calif., (a) $185,000, (b) $172,000, (a-1) $181,639, (b-1) $168,539; Poole Engineering & Machine Co., Baltimore, Md., (a) $154,500, (c) $51,225; R. D. Wood & Co., Philadelphia, Penn., (a) $144,500, (b) $133,000, (c) $47,500; A. S. Cameron Steam Pump Works, 11 Broadway, New York, (a) $153,348; Henry R. Worthington, 115 Broadway, New York, (a) $140,834, (b) $129,121; Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Penn., (c) $62,500; Seattle Dry Dock Construction Co., Seattle, Wash., (c) $55,000, (c-1) $64,000, (c-2) $59,000.

MISCELLANEOUS

+Station Improvements—Boston, Mass.—The Boston Transit Commission has awarded the contract for enlarging the Park St. station to COLEMAN BROS., Boston, at $12,164.

Asphaltic Road Oil—Waterbury, Conn.—See item under "Streets and Roads."

Fire and Police Department Equipment—Albany, N. Y.—Appropriations for the following improvements will soon be asked of the Common Council: $10,000 for construction of an addition to the police stable; $4000 for motor patrol wagon; $8000 for extension of the fire alarm system; $8000 for two motor chemical and hose wagons.

Oils—New York, N. Y.—(Borough of the Bronx)—(Official)—See item under "Streets and Roads."

Fill—New York, N. Y.—(Borough of Brooklyn)—(Official)—The following bids were received by the Department of Parks for furnishing and placing 230,000 cu.yd. of earth fill along the Shore Rd. between 94th St. and Ft. Hamilton Ave.; Rogers & Haggerty, 18c. per cu.yd.; Cullen Fleming Contracting Co., 18.5c.; H. Steers, Inc., 19.4c.; Norton & Gorman, 19.9c.; O'Brien Bros., Inc., 23.25c.; Moran Towing & Transportation Co., 24c.; F. V. Smith, Inc., 24c.; Wilson & English, 33c.; Oelson Contracting Co., 36c. Noted Mar. 4.

+Motor Tractors—New York, N. Y.—(Borough of Manhattan)—The Department of Street Cleaning has awarded a contract for furnishing 12 motor tractors to the GENERAL VEHICLE CO., INC., at $49,992.

Corporation Yard—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., Apr. 1, by the Borough President for the construction of a corporation yard under the Manhattan Bridge between Madison and Monroe St.

Drydocking, Painting and Scraping—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until noon, Mar. 31, by the Commissioner of Docks for furnishing the materials and labor necessary for drydocking, scraping, scaling, cleaning and painting the hulls of the municipal ferryboats.

Artificial Granite Balustrade—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 3 p.m., Apr. 1, by the Park Board, Municipal Bldg., for the construction of an artificial granite balustrade on top of the present granite coping of the speedway bulkhead wall.

Tar Road Oil and Coal Tar—New York, N. Y.—(Borough of Manhattan)—(Official)—See item under "Streets and Roads."

Wood Paving Blocks—New York, N. Y.—(Borough of Manhattan)—(Official)—See item under "Bridges."

Dock—Niagara Falls, N. Y.—Press reports state that the Municipal Harbor Board is considering the construction of a municipal dock. Joseph E. Montague is Pres.

Motor Fire Apparatus—Rome. N. Y.—On Mar. 4 the citizens voted favorably on the proposition to issue $15,000 in bonds, the proceeds to be expended for motor fire apparatus.

Fire Station—Edgewater, N. J.—The citizens will vote, Apr. 27, on the proposition to issue $45,000 in bonds to cover the cost of erecting a fire station and purchase of motor apparatus.

Fire Apparatus—Jersey City, N. J.—Frank Hague, Comr. Pub. Safety, has recommended that the contract for furnishing seven horse-drawn engines, three motor-driven aërial trucks and three fuel wagons be awarded to the American La France Fire Engine Co., Inc., 17 Battery Pl. New York, at its bid of $79,995. Noted Mar. 4.

Fire Equipment Bonds—Long Branch, N. J.—The city plans to issue $32,000 in bonds, the proceeds to be used for the construction of a fire station, the purchase of motor apparatus, and the installation of an alarm system.

+Dike—Newark, N. J.—The Essex County Mosquito Extermination Commission, 790 Broad St., Newark, has awarded the contract to J. R. MONOHAN, Red Bank, at 22.50c. per lin.ft. for the construction of about one mile of dike in Newark meadows.

Motor Fire Equipment—Easton, Penn.—D. W. Nevin, Mayor, has sent a recommendation to the City Council that it take steps toward completing the motorization of the fire department. T. P. Ricker is Ch., Fire Dept.

Mine Drain—Hazleton, Penn.—The Lehigh Valley Coal Co. has ordered preliminary surveys to be made for the construction of 5½ miles of tunnel for draining the Hazleton coal basin into Butler Valley. The estimated cost is $3,000,000.

+Package Elevators—Philadelphia, Penn.—The Department of Wharves, Docks and Ferries has awarded the contract for the installation of package elevators at the Southwark piers to the LINK BELT ENGINEERING CO., at $15,250. Noted Mar. 18.

★Competition for Engineers and Architects—Pittsburgh, Penn.—(Official)—Applications will be received until 1 p.m., Apr. 10, from engineers, architects and landscape architects for entrance in a competition for designing an entrance to Schenley Park. Committee on Competition, 634 Oliver Bldg., Pittsburgh. See advertisement under "Contracts to Be Let."

Subway—Pittsburgh, Penn.—Plans have been completed by A. D. Neely, Consult. Engr., for the construction of a twin tube subway from East Carson and Third St. to the Pittsburgh Ry. Co.'s southern portal. The estimated cost is $1,927,854.

Dredging and Bulkhead—Norfolk, Va.—Walter H. Taylor, City Engr., has sent a recommendation to the board of control urging the strengthening of the eastern bulkhead and dredging the slips at the Roanoke dock.

Motor Fire Apparatus—Wheeling, W. Va.—The Fire Committee has asked the City Council to authorize a bond issue of $100,000 for the motorization of the fire equipment.

Motor Fire Apparatus—Charlotte, N. C.—A special committee of the Board of Aldermen is receiving bids for furnishing the fire department with an aërial truck. From $9000 to $10,000 will be spent. A. H. Wearn is City Clk.

Drainage Bonds—Wilmington, N. C.—Bids will be received by M. F. H. Gouverneur, Secy., County Drainage District No. 1, for the purchase of $21,000 in bonds.

Drainage—Shrewsbury, La.—Bids will be received until Mar. 30 by the Board of Commissioners, Fourth Jefferson Drainage District, for constructing canals and other necessary work in Sub-Drainage District No. 2. Ernest Arnoult is Secy.

+Drainage—White Castle, La.—The contract for the construction of the White Castle drainage canal has been awarded to W. H. LAWES, at 4.75c. per cu.yd. A bond issue of $60,000 was recently voted to defray the cost of this project.

Elimination of Grade Crossing—Alliance, Ohio—Bids will be received until noon, Apr. 6, by James T. Ricard, Dir. Pub. Ser., for the construction of a reinforced-concrete subway under the tracks of the Pennsylvania R.R. at Arch St. The estimated cost is $100,000.

Docks—Cleveland, Ohio—The city plans the construction of municipal docks on the land fronting upon Lake Erie and controlling Cleveland's inner harbor. The title to this tract of land, 30 acres, has recently been awarded to the city after a 21-year legal battle with the Pennsylvania, Lake Shore & Michigan Southern and Big Four railroads.

+Dredging—Cleveland, Ohio—The Board of Public Service has awarded the contract for dredging in the Cuyahoga River to the GREAT LAKES DREDGE & DOCK CO., at $40,680. Noted Mar. 11.

+Coal Station—Cleveland, Ohio—The city has awarded a contract to the MASTER & MULLENS CONSTRUCTION CO., 454 Rose Bldg., at $38,000, for the construction of a three-story coal station on Division St.

Dredging—Mansfield, Ohio—C. L. Bushy, County Engr., has been commissioned to make surveys in Richland and Ashland Counties for 13 miles of dredge work. The estimated cost is $65,000.

Retaining Wall and River Improvements—Tiffin, Ohio—(Official)—Bids will be received until noon, Apr. 20, by William Heller, Dir. Pub. Service, for deepening, widening and straightening the Sandusky River in the city of Tiffin. In addition to the specified excavation separate bids will be received for concrete retaining walls.

Creek Improvement—Wooster, Ohio—The Commissioners of Summit and Wayne counties are contemplating dredging and widening Chippewa Creek. Estimated cost, about $50,000.

Dredging—Hartford City, Ind.—Bids will be received until Apr. 20 by Frank Wallace, Supt. of Construction of Blackford County, for dredging Lick Creek. The estimated cost is $48,000.

+Gymnasium—Beloit, Wis.—Beloit College has awarded the contract for the construction of a gymnasium, containing swimming pool, to JOHN SCHNEIBERG, Beloit. E. D. Eaton is Pres.

Motor Trucks—Milwaukee, Wis.—See item under "Garbage."

Ditch—Latimer, Iowa—Press reports state that the County Commissioners, Hampton, contemplate the construction of 7 miles of drainage ditch. Two miles will be open and five miles of tile. The estimated cost is $175,000.

Elimination of Grade Crossing—Duluth, Minn.—The Duluth, Missabe & Northern Ry. has had plans prepared for the construction of a subway at Highland St. for the elimination of its grade crossing. The estimated cost is $44,000.

Ditch—Le Sueur, Minn.—Bids will be received until Apr. 2 by the County Auditor for the construction of a drainage ditch, requiring about 140,000 cu.yd. of excavation. The estimated cost is $16,337. Bids will also be received for completing a spur of County Ditch No. 38, about 33,500 cu.yd. Estimated cost, $3850.

Wharves—Beaumont, Tex.—The Magnolia Petroleum Co. will soon award contracts for the construction of 1000 ft. of reinforced-concrete wharves on property recently purchased from the Caswell estate.

Tunnel—Salt Lake City, Utah—L. A. Martin, of Martin & Co., brokers, Salt Lake City, is promoting a company which will construct a drain, transportation and irrigation tunnel to facilitate ore handling at Tintic. Reports state that bids will be received about May 1. Estimated cost $1,000,000.

Ditches—Bellingham, Wash.—C. M. Adams, County Engr., is preparing plans for the construction of the following drainage work; three miles of open ditch in district No. 8, estimated cost $12,000; ten miles of ditches in Custer District at an estimated cost of $18,000; ditch to drain 2000 acres in district No. 9, $5000. Noted Jan. 14.

Drainage—North Yakima, Wash.—Bids have been received by the commissioners of Yakima County for drainage work in district No. 2. The following bids were submitted on open and closed ditches for cash and taking pay in bonds:

	Closed Ditch		Open Ditch	
	Cash	Bonds	Bonds	Cash
Carlson-Chindal Co., Spokane	$70,940.77	$74,067.96	$20,724.41	$21,711.26
Hans Pederson, Seattle	73,539.44	73,539.44	28,388.97	28,388.97
George P. Wright, Tacoma	76,305.55	76,577.39	23,403.18	23,403.18
Guthrie-McDougall Co., Portland	78,927.55	78,927.55	21,652.26	21,652.26
Twohy Bros., Spokane	82,823.48	87,157.57	33,346.14	35,181.60
Cascade Construction Co., North Yakima	85,296.26	86,894.16	25,629.64	26,504.83
Chamberlain Construction Co., Seattle	86,305.22	86,305.22	30,893.07	30,893.07
Washington Paving Co., Tacoma	86,992.11	92,836.82	20,851.35	22,011.92
O. F. Leonard, Seattle	95,120.81	99,992.37	26,808.90	28,248.91
Mitchell Bros., Spomane	96,521.91	100,512.88	20,013.94	20,915.26
Stilwell Bros., Inc., Seattle	96,714.69	102,499.27	38,043.13	39,746.80
S. Normile, Seattle	100,044.06	105,864.28	23,059.43	24,715.28
Nettleton-Bruce-Eschbach Co., Seattle	118,112.86	124,018.60	28,847.99	30,237.12
Elliott Construction Co., Portland	127,560.29	132,997.07	19,705.29	19,705.89
G. L. Kline, Mabton, Wash	100,044.06	105,864.28	23,059.43	24,715.28

+Cement—Seattle, Wash.—The Seattle Port Commission has awarded the contract for furnishing 20,000 bbl. of cement for use in the construction of the seven-story fruit storage building to the SUPERIOR PORTLAND CEMENT CO., at $2.25 per bbl.

Sprinkler System—Seattle, Wash.—Bids will be received until Mar. 31, by the Port of Seattle Commission for the installation of a dry pipe automatic sprinkler system in the freight shed at Smith's Cove. The estimated cost is $15,000.

Pipe Line—Lakes Albert and Summer, Ore. — (By Telegraph)—The following reply has been received in answer to an inquiry concerning the construction of a pipe line and plant for extracting salts from Lakes Albert and Summer: The Oregon legislature has ratified a lease to Jason C. Moore, 141 Broadway, New York, for the privilege of extracting salts from the waters of Lakes Albert and Summer. A payment of $10,000 has already been made to the state and an additional $15,000 will be paid by May 20. It is reported that the Goulds are financing the project. Preliminary plans and investigations are being supervised by J. G. Kelley, Engr., Commerce Bldg., Portland. The company's Portland representative is Chester A. Sheppard, of the firm of Sheppard & Brock, Atty., Henry Bldg. The proposed plant will be constructed at the intersection of the Columbia and Deschutes Rivers from which a 14-in. Oregon Fir pipe line will be laid to the lakes in question, a distance of 275 miles. The estimated cost is $2,000,000. Portland representatives have announced that finances have been arranged and construction will begin immediately.

Canal—Fresno, Calif.—Press reports state that the San Joaquin Light & Power Co. plans to construct a canal from a point on the Camp Nelson branch of Tule River to its power house at Springfield a distance of nine miles. This construction will necessitate two miles of tunneling.

★Cement, Stone, Pipe — Westmount, Que. — (Official) — Bids will be received until noon, Apr. 5, by the Secretary-Treasurer of the City Council for supplies for the year beginning May 1, 1915. P. E. Jarman is City Engr.

Drainage—Sombra, Ont.—Surveys have been completed and bids will soon be received for the construction of an extensive drainage system. The work will include eight miles of dredge excavation, six miles of team and scraper work and the construction of ten reinforced concrete bridges. The estimated cost is $42,882. G. A. McCubbin, 135 King St., Chatham, Ont., is Engr.

Subway Work—Toronto, Ont.—The City Council has approved the Controller's action in voting $100,000 for widening the Yonge St. subway.

★Miscellaneous Supplies—Toronto, Ont.—(Official)—Bids will be received until noon, Mar. 30, by T. L. Church, Mayor and Chn. Bd. of Control, for furnishing supplies for civic railways and coal for Water Supply section.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Lynn, Mass.—The Vallodolid Council, Knights of Columbus, plans to construct a club house on North Common St. Estimated cost, $100,000. James J. Donaho, Treas., is in charge.

North Adams, Mass.—The Adams Opera House Co. plans to construct a four-story, 75x160-ft. building. J. McArthur Vance, 24 North St., Pittsfield, is Arch. Estimated cost, $60,000.

+Springfield, Mass.—(Official)—The contract has been awarded to A. E. STEPHENS CO., Springfield, at $178,000, for the construction of a seven-story Y. M. C. A. building. Kenneth Roblie is Gen. Secy. Noted Feb. 25 and Mar. 4.

Worcester, Mass.—Bids will soon be received for the construction of a building on Main St. for the Merchants National Bank. Frank H. Kendall, Boston, has prepared plans. Noted Feb. 4.

Bristol, R. I.—The citizens voted on Mar. 15 to appropriate $40,000 for the construction of a brick school. H. W. Church is Chn. of School Bd.

Providence, R. I.—(Official)—Bids will be received until 2:15 p.m., Apr. 5, by the Board of Contract and Supply for the construction of a school on Laurel Hill Ave. Clarke & Howe, 1304 Turks Head Bldg., is Arch. Joseph H. Gainer is Mayor and Chn. of Bd. Noted Jan. 7 and Mar. 11.

+Providence, R. I.—The CHARLES B. McGUIRE CO. has been awarded the contract for the construction of a three-story, 48x120-ft. brick block on Fountain and Matthewson St. for Julius Palmer.

Warren, R. I.—The citizens on Mar. 15 voted to appropriate $50,000 for the construction of a school. Daniel L. Morrisey is Chn. of School Bd.

Bristol, Conn.—(Official)—Wise & Upson, Hartford, at $62,835, submitted the lowest bid for the construction of a school on Maple St., for District No. 1. Walter P. Crabtree, 272 Main St., New Britain, is Arch. Noted Jan. 21 and Mar. 4.

Buffalo, N. Y.—Plans have been prepared by Green & Wicks, Arch., 110 Franklin St., for the construction of a $3,500,000 group of municipal hospital buildings proposed by the West Farm Commission. The group includes a pathological building, power house, two service buildings, two receiving buildings and an isolation building.

★Industry, N. Y.—(Official)—Bids will be received until noon, Apr. 13, by Mrs. Warham Whitney, Pres. of Bd. of Mgrs. of the State Agricultural and Industrial School, for the construction of additions and alterations to the hospital building. Lewis F. Pilcher, Capitol, Albany, is State Arch.

Kings Park, N. Y.—(Official)—Bids were received Mar. 18 by the State Hospital Commission for the construction of an addition to the Kings Park State Hospital, as follows: Maurice Mead, Albany, $72,000, $24,480; Edwin Outwater, Inc., 18 East 41st St., New York, $78,510, $26,826; R. T. Ford Co., 206 South Ave., Rochester, $83,500, $27,000; Simon Russek, Inc., 261 Broadway, New York, $87,400, $29,800; Aroldo Barbaresi, Mount Vernon, $88,873, $31,988; William H. Egan, 147 East 125th St., New York, $90,354, $31,749; Frank Sibenaler, New Rochelle, $92,000, $32,500; Austin W. Summers, Buffalo, $95,650, $33,200; Neptune B. Smyth, Inc., 413 East 34th St., New York, $97,428, $32,782; L. J. Kennedy, Port Chester, $99,600, $33,538. Noted Mar. 11.

Newark, N. Y.—(Official)—Henry H. Stebbins, Pres., Bd. of Trustees, New York State Custodial Asylum for Feeble-Minded Women, received bids Mar. 4 for the construction of cottages as follows: J. F. Growe Construction Co., Albany, $47,595; J. H. Waight, Hornell, $77,360; O'Brien Construction Co., Syracuse, $46,920; O. E. Schuman, Newark, $43,516; A. Friederich Sons Co., Rochester, $45,798; Durolithic Co., Buffalo, $50,000; R. T. Ford Co., Rochester, $46,995; Morris & Allen, Inc., Buffalo, $51,764; Curran & Swartout, Rochester, $45,000; C. A. Hager, Buffalo, $50,109; E. J. Forbes & Son, Geneseo, $46,996; Steinbrenner-Fischer Co., Inc., Niagara Falls, $53,620; William F. Felton, Buffalo, $47,363; Austin W. Summers, Buffalo, $46,270.

Newark, N. Y.—(Official)—Bids were received Mar. 4 by Henry H. Stebbins, Pres., Bd. of Trustees, New York State Custodial Asylum for Feeble-Minded Women, for the construction of a building as follows: A. Friederich Sons Co., Rochester, $43,229; Durolithic Co., Buffalo, $46,500; O'Brien Construction Co., Syracuse, $47,698; John H. Waight, Hornell, $73,710; J. H. Growe Construction Co., Albany, $47,095; W. F. Felton, Buffalo, $44,160; R. T. Ford Co., Rochester, $42,596; Morris & Allen, Inc., Buffalo, $50,990; Curran & Swartout, Rochester, $45,500; C. A. Hager, Buffalo, $46,800; Austin W. Summers, Buffalo, $40,498; Steinbrenner-Fischer Construction Co., Niagara Falls, $54,553. Noted Feb. 11.

+New York, N. Y.—(Borough of Manhattan)—The contract for the construction of an office building on the site of the Astor House, Broadway and Vesey St., for the Astor Estate, 23 West 26th St., has been awarded to MARC EIDLITZ & SON, 30 East 42d St. Charles A. Platt, 11 East 24th St., is Arch.

+New York, N. Y.—(Borough of Manhattan)—The contract for the steel work for the proposed building at 1457 Broadway, for Brokaw Bros., has been awarded to the HINKLE IRON CO., 534 West 56th St., New York. Estimated cost, $500,000. Noted Jan. 28 and Feb. 25.

New York, N. Y.—(Borough of Manhattan)—H. Craig Leverance and William Van Alen, Archs., 4 West 37th St., have prepared plans for the construction of a one-story addition to the building at 26 Broadway, owned by the Standard Oil Co. The estimated cost is $100,000.

New York, N. Y.—(Borough of Manhattan)—Griffen & Wynkoop, Arch., 30 Church St., has prepared plans for the construction of a 16-story jail, court and detention house for women on West 30th St. near Seventh Ave. for the Department of Correction. The estimated cost is $450,000.

+New York, N. Y.—(Borough of Queens)—(Official)—The contract for the construction of Public School No. 41 on Crocheron and Franklin Ave., Bayside, has been awarded to FRANK J. FELGENHAUER CO., INC., 4 Court Sq., Brooklyn, at $81,879. Noted Mar. 4 and 18.

New York, N. Y.—(Borough of Queens)—Plans are being prepared by H. T. Jeffrey & Son, Arch., 923 Lefferts Ave., Richmond Hill, for the construction of a three-story, 64x97-ft. hotel at Harriman and Shelton Ave., Jamaica, for Robert E. Adolph, 80 Herriman Ave. Estimated cost, $125,000.

New York, N. Y.—(Borough of Queens)—Plans are being prepared by H. T. Jeffrey & Son, 923 Lefferts Ave., Richmond Hill, for the construction of a four-story, 65x110-ft. apartment house at Union and Sanford Ave., Flushing, L. I., for Robert E. Adolph, 80 Herriman Ave., Jamaica. Estimated cost, $100,000.

New York, N. Y.—(Borough of Queens)—(Official) — The following bids were received by the Board of Education for the construction of Public School No. 93 on Forest Ave. between Woodbine and Madison St.: Harvey, Abrahams & Melius, $289,700; H. C. Stowe Construction Co., 221 Greenpoint Ave., Brooklyn, $267,630; T. A. Clarke Co., 122 Livingston St., Brooklyn, $267,600; J. Kressi, $267,800; Morgan Construction Co., $267,992. Noted under Borough of Manhattan, Feb. 4.

New York, N. Y.—(Borough of Richmond)—Bids are being received by Fred L. Metcalf, Arch., 143 North Ave., Plainfield, N. J., for the construction of a two-story parochial school at West New Brighton, S. I., for the Church of the Sacred Heart. Estimated cost, $100,000. Noted Jan. 28.

New York, N. Y.—(Borough of Richmond)—The Bethlehem Orphans Home contemplates the construction of a building. Estimated cost, $100,000. D. Lankenan is Pres.

New York, N. Y.—(Borough of Richmond)—Plans have been prepared by D. Santoro, Tompkinsville, S. I. for the construction of a four-story building at Tompkinsville, for the Westervelt Construction Co. Estimated cost, $40,000.

Collingswood, N. J.—The Board of Education contemplates a bond issue of $75,000 for the construction of additions to the E. C. Knight High School. The Board also plans an addition to the Tatem primary school and a building on the site of school No. 3. Noted Feb. 25.

Harrison, N. J.—The Board of Education contemplates the construction of a school at Harrison.

Jersey City, N. J.—The City Council voted Mar. 18 to issue $283,000 in bonds for the construction of a city hospital, nurses' home and a maternity hospital. John Rowland, Jr., Arch., 98 Sip Ave., has prepared plans.

+Morristown, N. J.—The contract for the construction of a wing to the Memorial Hospital has been awarded to STURGIS BROS., at about $65,000. Noted Jan. 7.

Newark, N. J.—Plans are being prepared by William E. Lehman, Arch., 738 Broad St., for the construction of a two-story fireproof market on Broad and Green St. for Apfelbaum & Apfelbaum, Inc., 207 Market St.

Newark, N. J.—J. H. & W. C. Ely, Firemen's Bldg., has prepared plans for the construction of a three-story parental home on Sussex Ave., between Duryea and Hecker St., for the Board of Trustees of Essex County Parental Home. Estimated cost, $40,000. Noted under Bayonne, N. J., Mar. 18.

+Nutley, N. J.—The contract for the construction of a two-story school on Harrison St. has been awarded to E. M. WALDRON & CO., 34 South Sixth St., Newark. Estimated cost, $40,000. Noted Feb. 18.

Princeton, N. J.—(Official)—We have been advised that the construction of a dormitory for Princeton University will not be started this year. John G. Hibben is Pres. Noted Mar. 18.

Union, N. J.—Bids are being reecived by William H. McElfatrick, 701 Seventh Ave., New York, N. Y., for the construction of a two-story, 129x180-ft. building on Hackensack Plank Rd. and Bergenline Ave. for Carl F. Michelfelder, 86 Park St., Montclair. Estimated cost, $100,000.

Bellowsville, Penn.—(Monaca post office)—Bids for the construction of a $105,000 county building have been received as follows: Fike & Cartwright, Midland, $125,585; Martsolf Bros. Co., Seventh St., Beaver Falls, $103,650; R. B. McDanel & Co., 11th St., New Brighton, $116,688; L. C. Kirker, 904 Fourth Ave., Beaver Falls, $99,995; Cook, Anderson & Co., Fifth St., Beaver Falls, $99,542; Ley Construction Co., Park Bldg., Pittsburgh, $96,846; R. L. McKim, 732 Crescent Ave., Ellwood, $111,143; McDonald & Hartman, 204 Water St., Beaver Falls, $108,648. Noted under Beaver Falls, Penn. Mar. 4.

Greensburg, Penn.—E. E. Bailey & Co., Arch., Chamber Bldg., Oil City, has prepared plans for the construction of a seven-story, 25x100-ft. bank and office building for the Westmoreland National Bank. The cost will be between $50,000 and $100,000. Noted Sept. 24 and Dec. 24.

Harrisburg, Penn.—Plans have been prepared for the construction of a school at Fifth and Mahantongo St. The estimated cost is $75,000. D. D. Hammelbaugh is Secy. of Finance Com.

Marshalsea, Penn.—(Bridgeville post office)—The Councilmanic Committee on Charities and Corrections contemplates the construction of an asylum building. Estimated cost, $350,000.

+Philadelphia, Penn.—(Official)—The contract for the construction of a three-story school at 56th St. and Kingsessing Ave. has been awarded to HENRY L. BROWN, 1714 Sansom St., at $279,597. Other bids were: Cramp & Co., Denckla Bldg., $280,174; William R. Dougherty, 1608 Sansom St., $286,000; Edwin F. Fonder, Land Title Bldg., $291,500; Roydhouse, Arey & Co., Fidelity Bldg., $299,847. Noted Mar. 18.

Pottsville, Penn.—Bids will soon be received for the construction of a one-story building for the Pennsylvania National Bank. Estimated cost, $50,000. Mowbray & Uffinger, 56 Liberty St., New York, N. Y., is Arch.

Tarentum, Penn.—The citizens have voted in favor of issuing $100,000 in bonds. The proceeds will be used for the construction of a school in the First Ward.

+Parkersburg, W. Va.—The contract for the construction of a two-story building for the Second National Bank has been awarded to H. H. VOUGHT & CO., 70 East 45th St., New York, N. Y. The estimated cost is $80,000. Noted Dec. 31.

Savannah, Ga.—Plans are being prepared by Alfred C. Bossom, Arch., 366 Fifth Ave., New York, N. Y., for the construction of a five-story, 60x140-ft. building for the American Bank & Trust Co.

Knoxville, Tenn.—The Directors of Post C, Travelers' Protective Association, and Council No. 91, United Commercial Travelers, plan to construct a clubhouse. Estimated cost, $50,000.

Memphis, Tenn.—W. C. Duttlinger, Chn. of Bldg. Com., is in charge of the construction of an auditorium. The estimated cost is $400,000.

Nashville, Tenn.—Bids will be received until Apr. 6 by Samuel Hannaford & Son, Arch., Sixth and Vine St., Cincinnati, Ohio, for the construction of a laboratory building for the Vanderbilt University. The estimated cost is $250,000. Noted Dec. 17 and 31.

Louisville, Ky.—The Louisville Athletic Club, 1010 Starks Bldg., plans the construction of an 11-story building. Estimated cost, $100,000.

+Canton, Ohio—(Official)—The contract for excavating and shoring for the Central High School has been awarded to F. A. DOWNS CONSTRUCTION CO., at $28,469. Other bids were: Robert C. Dickey, $46,000; Cable & Cable, $36,000; George H. White & Son, $28,984; Fred R. Jones Co., Chicago, Ill., $31,800; Franklin Bros., Akron, $38,885; Dawson Construction Co., $29,190. W. C. Lane is Clk. of Bd. of Education. Bids will be received about Apr. 1 for the general construction. Noted Jan. 28 and Mar. 11.

+Cincinnati, Ohio—The contract for the construction of a 10-story office building on Sixth and Sycamore St. for Val. Duttenhofer, Jr., has been awarded to the ROCHE-BRUNER BUILDING CO., 609 Johnston Bldg. Estimated cost, $184,000 Noted Feb. 18.

+Cincinnati, Ohio—The contract has been awarded to JACOB WEBER, 1667 Spring Lawn Ave., for the construction of an addition to the Cincinnati Sanitarium, Hamilton Ave., College Hill.

Cincinnati, Ohio—Bids will be received until noon, Apr. 12, by the Clerk of the Board of Education, City Hall, for the construction of the Warsaw School on Glenway near Sunset Ave. C. W. Handman, 511 West Court St., is Business Mgr. of Bd.

+Cincinnati, Ohio—The general contract for the construction of the $2,500,000 court house and jail for Hamilton County has been awarded to CHARLES McCAUL CO., 2107 North Broad St., Philadelphia, Penn., at $1,385,480. Noted July 23, Sept. 3, Dec. 3 and 10, and Feb. 25.

+Cleveland, Ohio—Contracts for the construction of the 18-story building for the Union National Bank have been awarded to CROWELL, LUNDOFF & LITTLE CO., 1957 East 55th St., general contract; RAYMOND CONCRETE PILE CO., 140 Cedar St., New York, N. Y., concrete piles. Noted Oct. 22.

Cleveland, Ohio—The Board of Education plans to construct a model school to be used as a central high school and for general offices of the city schools of Cleveland It will be included in a group of buildings to be constructed and to cost about $1,000,000.

Cleveland, Ohio—Plans have been submitted to P J. Phillips, Plan Examiner, for the construction of a 13-story building on Euclid Ave. for the Union National Bank. Estimated cost, $500,000. Noted Oct. 22.

Cleveland, Ohio—The city plans to rebuild its two-story central market on Ontario St. Charles Kamp is City Marketmaster.

Cleveland, Ohio—Plans have been prepared by W. S. Lougee, Arch., 500 Marshall Bldg., for remodeling the Meckes Homestead at Franklin Circle into a Detention Home for Boys E. G. Krause is Clk. Estimated cost, $60,000.

Cleveland, Ohio—Plans are being prepared by W. S. Lougee, Arch., 500 Marshall Bldg., for the construction of a three-story fireprooof commercial and theater building at West 25th and Denison Ave., S. W., for W. G. Marshall, of the Marshall Drug Co., Superior Ave., N. W., and Public Sq. Estimated cost, $55,000.

Cleveland, Ohio—Willard Hirsh, Arch., 1302 Swetland Bldg., is preparing plans for the construction of a commercial and apartment building at East 103d and St. Clair Ave. for Harry S. French, of the Machinery Forging Co., Hamilton Ave., N. E.

Cleveland, Ohio—Plans are being revised by Nicola Petti, Arch., 709 Williamson Bldg., for the construction of a four-story, 50x75-ft. motion picture theater and commercial building for the Italian Publishing Co., 821 Central Ave. Estimated cost, $60,000. Noted Nov. 5 and Dec. 10.

Columbus, Ohio—The state plans to construct a state office building. Estimated cost, $300,000. A. V. Donahey is State Audr. and John Brennen, State Treas.

Fremont, Ohio—The Masonic Organizations have purchased a site for the construction of a Masonic Temple. Estimated cost. $50,000.

✚Lakewood, Ohio—The contract for the construction of a Masonic Temple at Andrews and Detroit Ave. has been awarded to J. W. CHRISTFORD, 1452 Highland Ave., at $98,570. Noted May 21 and Aug 6.

Minerva, Ohio—Plans are being prepared by Howard & Merriam, Arch., 8 East Broad St., Columbus, for the construction of a school. Estimated cost, $65,000.

Morral, Ohio—Bids will be received until Apr. 13 by the Board of Education for the construction of a fireproof high and grade school.

✚Toledo, Ohio—The general contract for the construction of the Detroit Ave. School has been awarded to A. BENTLEY & SONS CO., at $160,580. Noted Mar. 4.

Tontogany, Ohio—Bids will be received until noon, Apr. 2, by W. E Burgoon, Clk. of Bd. of Education, Washington Township Rural School District, for the construction of a high and grade school. Estimated cost, $49,000. Howard & Merriam, 8 East Broad St., Columbus, is Arch.

Wickliffe, Ohio—Bids will be received until Mar. 31 by C. C. Jenkins, Clk. of Bd. of Education, Willoughby, for the construction of a school at Wickliffe. Knox & Elliott, 1246 Rockefeller Bldg., Cleveland, is Arch.

Bloomington, Ind.—The Board of Trustees of Indiana University has authorized the construction of a gymnasium. The estimated cost is $150,000. William L. Bryan is Pres.

Evansville, Ind.—Preliminary plans have been submitted by architects to the Board of Coliseum Directors to determine the design of the proposed coliseum.

Evansville, Ind. — Plans are being prepared by Adolph Scherrer, Arch., 417 Indiana Trust Bldg., Indianapolis, for the construction of a six-story building for the Old State Bank, Main near First St. The estimated cost is $200,000.

Indianapolis, Ind.—Bids will be received until 8 p.m., Mar. 30, by the Board of School Commissioners for the construction of Public School No. 180, Palmer St., between Barth and Ringgold St. John E. Cleland, Wimmer Bldg., Illinois and New York St., is Business Dir.

✚Chicago, Ill.—The RAYMOND CONCRETE PILE CO., 140 Cedar St., New York, N. Y., has been awarded the contract for concrete piles for the Hardy Apartment at 200 East Delaware Pl. for the McLennan Construction Co.

East St. Louis, Ill.—(Official)—The lowest bid submitted for the construction of a two-story high school was that of the Kellermann Contracting Co., Roe Bldg., St. Louis, Mo., at $181,000. Contracts will be awarded about Apr. 19. Noted Oct. 8, Nov. 26 and Feb. 18.

Elkhorn, Wis.—Plans have been prepared by James R. Law, Arch., Madison, for the construction of a two-story, 40x76-ft. building for the First National Bank. Estimated cost, $40,000.

✚Madison, Wis.—The Board of Education has awarded the general contract for the construction of a school in Fair Oaks to T. C. McCARTHY, at $44,400. The estimated cost of the building complete is $90,000.

Peshtigo, Wis.—The Board of Education contemplates the construction of an addition to the Peshtigo High School. Estimated cost, $45,000.

Shiocton, Wis.—Plans are being prepared by Anderson & Williams, Arch., Green Bay, for rebuilding the high school recently destroyed by fire. Estimated cost, $75,000.

Missouri Valley, Iowa—(Official)—Bids will be received until 3 p.m., Mar. 30, by J. S. Dewell, Secy. of Bd. of Education, for the construction of a high school. Estimated cost, $70,000. Noted Feb. 11 and Mar. 18.

✚Sioux City, Iowa—(Official)—The contract for the construction of a four-story building has been awarded to EGLEY & PAYETTE, Sioux City. Benttler & Arnold, Davidson Auto Blk., is Arch. Noted Feb. 25.

Fertile, Minn.—F. E. Broomhall, Arch., 710 Alworth Bldg., Duluth, has prepared plans for the construction of a school. Estimated cost, $40,000. Noted Feb. 4.

Lincoln, Neb.—The Board of Education has voted to issue $600,000 and $200,000 in bonds for the construction of a high school and grade schools, respectively.

✚Jefferson City, Mo.—The contract for the construction of a seven-story, 60x91-ft. bank and office building for the Jefferson Investment Co. has been awarded to MILLER & LOGAN, Carthage. Estimated cost, $125,000. Noted Oct. 1 and 29, and Dec. 3.

Kansas City, Mo.—Plans are being prepared by J. G. Braecklein, Arch., 315 Massachusetts Bldg., for the construction of a six-story addition and nurses' home on McCoy Ave. for the German Hospital. The estimated cost is $150,000. Noted Dec. 24.

St. Louis, Mo.—The Westminister Presbyterian Church will construct an auditorium at Union and Delmar Blvd. The estimated cost is $70,000. J. F. Cannon is Pastor.

Cleburne, Tex.—The citizens have voted to issue $130,000 in bonds, the proceeds to be used for the construction of schools.

Ogden, Utah—The Board of Education plans to hold an election to vote on the question of issuing $450,000 in bonds. The proceeds will be used for the construction of additions and improvements to schools in Ogden. John M. Mills is Supt. and L. S. Hodgson is Arch.

Olympia, Wash.—The Legislature has approved the following appropriations for state buildings: $128,000 for two ward buildings at the Institute for Feeble-Minded; $75,000 for a building at the State School for Blind; $60,000 for buildings at the State School for Girls; $50,000 for improvements at the Bellingham Normal School; $50,000 for buildings at the Cheney Normal School.

Seattle, Wash.—The Colisium Co. is having plans prepared by B. Marcus Pretica, Arch., Empire Bldg., for the construction of a motion-picture theater on Pike St. and Fifth Ave. The estimated cost is $600,000. J. L. Gottstein is Pres. of the company.

Grants Pass, Ore.—(Official)—Bids will be received about Apr. 1 by E. E. McClaran, Arch., 525 Lumber Exchange Bldg., Portland, for the construction of a three-story, 64x130-ft. court house. Estimated cost, $100,000. Noted Mar. 4.

Junction City, Ore.—The Directors of the Junction City Hotel plan to rebuild the hotel which was recently destroyed by fire. Estimated cost, $60,000.

✚San Francisco, Calif.—The contract has been awarded to FARRELL & REED, at $55,500, for the construction of a museum in Golden Gate Park for the California Academy of Sciences.

Visalia, Calif.—The Southern Pacific Co. plans to construct a passenger station. Estimated cost, $40,000. W. Hood, San Francisco, is Ch. Engr.

New Westminster, B. C.—Plans have been prepared by F. N. Senecal, Arch., Hart Bldg., for the construction of a municipal market building at 10th St. The estimated cost is $40,000.

The Sanderson-Cyclone Drill Co. is the successor to the Cyclone Drill Co. The officers of the company are: R. R. Sanderson, Pres. and Gen. Mgr.; Will Ford, Vice-Pres.; and Paul Hildebrant, Secy. and Treas. The officers, together with a number of other men who have been interested in and advocates of the big blast hole drill business, are all thoroughly familiar with either the manufacturing or sales organization and are able to render expert advice, from a long experience, to contractors and others who may be in need of such assistance.

The National Railway Appliances Association, which organizes the exhibits of railway materials and appliances at the annual meetings of the American Railway Engineering Association and the Railway Signal Association, held its annual meeting in Chicago in March. Officers were elected as follows: Pres., Philip W. Moore, P. & M. Co., Chicago; Vice-Pres., Henry M. Sperry, General Railway Signal Co., Rochester, N. Y.; Secy., B. V. Crandall, Chicago.

Dorchester Tunnel, Section H, Boston, Mass.

✚Bids were received Feb. 25 by the Boston Transit Commission for the construction of the Dorchester Tunnel, Section H, Contract No. 550, from: (A) Oscar Daniels Co., Woolworth Bldg., New York, N. Y.; (B) P. McGovern & Co., Tremont Bldg., Boston; (C) Rowe Contracting Co., Brighton, Mass.; (D) James E. Gaffney, 101 Tremont St., Boston; (E) Thomas-Harmon Co., Railway Exchange Bldg., St. Louis, Mo.; (F) James J. Coughlan Co., 43 Tremont St., Boston; (G) Hugh Nawn Contracting Co., 82 Savin St., Roxbury; (H) Coleman Bros., Boston; (I) Lou B. Cleveland, Cleveland Bldg., Watertown, N. Y.; (J) Bruno & Petitti, 18 Tremont St., Boston; (K) William J. Barry, 431 Ashland St., Roslindale; (L) Jeremiah P. O'Riorden, 1 City Sq., Charlestown; (M) H. P. Converse & Co., 88 Broad St., Boston; (N) T. A. GILLESPIE GO., 50 Church St., New York, (contract awarded). The item bids were as follows:

DORCHESTER TUNNEL, SECTION H, BOSTON, MASS.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
87,000 cu.yd. earth excavation	$5.00	$3.95	$4.00	$4.00	$3.46	$3.85	$3.50	$3.70	$3.00	$3.25	$3.50	$3.18	$2.99	$3.00
23,000 cu.yd. concrete	8.25	9.00	9.00	9.00	9.25	9.00	9.50	9.00	9.00	9.00	8.00	9.00	8.83	8.00
50 cu.yd. cinder concrete	8.00	8.00	7.00	7.00	5.25	5.00	7.00	5.00	8.00	7.00	12.00	10.00	6.17	5.00
200 cu.yd. mortar	8.00	17.00	20.00	8.00	12.00	8.00	15.00	13.00	12.00	12.00	15.00	14.00	14.00	10.00
30 cu.yd. concrete with small stone	10.00	10.00	12.00	6.00	12.00	10.00	12.00	13.00	15.00	10.00	20.00	10.00	11.00	9.00
200 cu.yd. brick masonry	15.00	20.00	16.00	20.00	14.00	18.00	20.00	16.00	18.00	18.00	20.00	16.00	15.00	16.00
2200 lin.ft. 8-12 in. vitrified pipe	1.00	2.00	0.50	0.60	0.75	0.50	1.00	0.30	0.75	1.00	1.00	0.35	0.55	1.00
1300 lin.ft. 8-12-ft. vitrified pipe	0.30	1.50	0.40	0.40	0.60	0.50	1.00	0.30	0.50	0.50	1.00	0.50	0.40	1.00
2300 lin.ft. 6-15-in. vitrified pipe	0.40	2.00	0.50	0.60	1.00	1.00	1.00	0.40	0.60	1.00	1.00	0.80	0.55	1.00
1700 lin.ft. 20-30-in. vitrified pipe	1.00	4.00	0.90	1.10	1.50	1.00	2.00	0.60	1.00	2.00	2.00	1.50	1.25	2.00
Setting in place 1300 tons of steel	15.00	18.00	7.00	12.00	9.00	10.00	7.00	8.00	13.00	20.00	10.00	6.00	7.26	9.00
Setting in place 20 tons of steel	15.00	25.00	12.00	12.00	12.00	15.00	20.00	16.00	21.00	20.00	20.00	20.00	12.00	20.00
100 sq.yd. portland cement mortar, ½ in. thick	0.50	0.50	0.45	0.50	0.40	0.30	1.00	0.40	0.75	0.50	0.50	1.00	0.50	0.30
500 cu.yd. grout mixture, neat	1.50	18.00	20.00	12.00	18.00	13.00	20.00	14.00	20.00	18.00	20.00	16.00	12.47	14.00
100 cu.yd. grout mixture, 1 to 1½	1.25	14.00	12.00	8.00	16.00	10.00	10.00	9.00	17.00	15.00	18.00	11.00	10.75	11.00
500 cu.yd. grout mixture, 1 to 4	1.00	12.00	10.00	6.00	12.00	6.00	6.00	6.00	13.00	12.00	16.00	6.00	5.70	9.00
60,000 sq.yd. prepared textile and asphalt	0.50	0.45	0.50	0.40	0.50	0.45	0.40	0.40	0.65	0.40	0.30	0.44	0.50	0.42
Work and risks not covered by other items	10,000	5000.00	2000.00	10,000	10,000	1000.00	2000.00	1000.00	5000.00	5000.00	1000.00	2500.00	2500.00	5000.00
300 M ft. b.m. sheet piling, 6 in. thick	30.00	46.00	50.00	50.00	65.00	45.00	60.00	39.00	65.00	35.00	60.00	52.00	49.30	60.00
200 M ft. b.m. sheet piling, 4 in. thick	30.00	48.00	50.00	50.00	80.00	45.00	60.00	37.00	80.00	35.00	60.00	52.00	49.30	60.00
Extended totals	$712,610	$684,850	$660,595	$658,110	$645,352	$636,780	$628,510	$612,190	$610.625	$607,900	$604,350	$581,470	$561,491	$554,750

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

MORE HIGHWAY CONSTRUCTION THAN EVER

Preparations have been made by several states to spend more money than ever before for state highways or aid to counties in constructing improved roads. In some states the movement is just under way, but from practically every section of the Union there is a disposition to spend large sums of money in building new roads. In California about a third of the $18,000,000 bond issue will be spent this year. In West Virginia it is planned to spend about $4,000,000, while Kentucky will spend a like amount. Ohio, where there is now $8,000,000 of road work under contract, will spend $2,000,000 more and in New York $15,000,000 will be spent. In a few of the states no direct state aid has been given but the counties are exerting themselves toward securing financial aid for road improvements. A compilation is given below of the sum which will be spent by the several states and the officials in charge of highway work:

Maine—Chief Engineer State Highway Commission, Paul D. Sargent, Augusta. I. W. Barbour, Asst. Engr., P. L. H. Hardison Asst. Engr., A. J. Wiggin Supt. of Maintenance. There will be an appropriation of $500,000 by state. The state and counties will also contribute $300,000 each for state aid roads.

New Hampshire—State Superintendent of Highways, Chase R. Whitcher, Concord. Will spend $275,000 for highways during the year.

Massachusetts—State Highway Commissioners, William D. Sohier, Boston, Frank D. Kemp, Springfield, James W. Synan, Pittsfield. Chief Engineer, Arthur W. Dean, Winchester. About $2,500,000 will be spent for road construction during the year.

Vermont—State Highway Commissioner, Stoddard B. Bates, Franklin, Vt. An expenditure of $450,000 for highways is contemplated during the year.

Rhode Island—Engineer State Board of Public Roads, Irving W. Patterson, Providence. No appropriations made for constructing new roads this year, only for maintenance of roads already constructed.

Connecticut—State Highway Commissioner, Charles J. Bennett; Deputy Highway Commissioner, Richard L. Saunders (in charge of construction), Highway Superintendent, W. LeRoy Ulrich (in charge of repairs and maintenance). Appropriation of $1,000,000 has been made for highways.

New York—State Engineer and Surveyor, Frank M. Williams; Deputy Engineer, H. E. Breed, both of Albany. The Legislature has appropriated $10,000,000 for new state highways. It is expected that $3,500,000 will be allowed for repairs and maintenance and that $1,500,000 will be spent for the construction of highways by state and county aid.

New Jersey—State Highway Engineer, R. A. Meeker; State Road Commissioner, E. A. Stevens, both of Trenton. About $500,000 will be spent for highway construction during the year.

Pennsylvania—State Highway Commissioner, Edward M. Bigelow; Chief Engineer, Samuel D. Foster, both of Harrisburg. No appropriations made as yet for highway construction.

Delaware—State Highway Commissioner and Engineer Newcastle County, James Wilson, Wilmington. The counties (three) can draw $10,000 each from the State Treasurer provided each county raise and spend $20,000 for highway construction.

Maryland—Chief Engineer State Roads Commission, Henry G. Shirley, Baltimore. An expenditure of $2,000,000 for highway work is planned.

Virginia—State Highway Commissioner, G. P. Coleman; Asst. Commissioner, C. B. Scott, both of Richmond. About $1,750,000 has been appropriated for highway construction.

West Virginia—Chief Road Engineer, A. D. Williams, Morgantown, W. Va., Kanawha County, L. C. Massey, Clk., has advertised for and will receive bids on 17½ miles of hard surface (road) construction up until April 10. They have called for a bond issue to be voted on April 24, for $350,000 to cover this construction. Marshall County, T. J. Bartrug, Engr., Moundsville, will spend $50,000 on macadamized roads and bonds have been voted. Wetzel County, Grant District, will spend $90,000 on grading, Blake Taylor, Engr., Jacksonburg. A bond issue is called in Lincoln District, Marion County, J. Russell Wilson, Engr., Washington, Penn. Work heretofore contracted in Fairmont and Mannington Districts in Marion County, which have voted $700,000 in bonds, will be completed this year. Ohio County will spend $170,000 on road construction. Wayne County will construct 2½ miles of brick road between Cabell County line and Kenova. A $500,000 bond issue is contemplated in Logan County and petition for a $600,000 bond issue has been filed in Mercer County, George Hilmon, Princeton, Engr. A bond issue of $165,000 was voted on Mar. 20, in Big Creek District, McDowell County. W. J. Welch, Engr. A $47,500 bond issue is being contemplated in Lubeck District, Wood County, Burdette Woodyard, Engr., Parkersburg. There will be spent during the year in the state on roads in addition to the above, approximately $2,000,000, and approximately $600,000 will be spent on bridges.

North Carolina—State Geologist and State Highway Commissioner, Joseph Hyde Pratt, Chapel Hill. An appropriation of $10,000,000 for state highway work is expected.

South Carolina—There is no state highway work. In most cases the roads of several counties are managed by County Commissioners.

Georgia—State Highway Engineer, T. P. Stanley, Atlanta. The State does not appropriate any money for highway construction, but allows each of the counties to use the convicts who are able to do manual labor. The counties appropriate the needed funds for the construction and maintenance of roads.

Florida—The Boards of County Commissioners of the respective Counties attend to the construction and maintenance of roads.

Alabama—State Highway Engineer, W. S. Keller; Asst. State Highway Engineer, R. P. Boyd, both of Montgomery. About $400,000 will be spent for state aid roads.

Mississippi—No State Highway Commission. The Boards of Supervisors of the various counties authorize the Supervisors Districts to issue bonds for road improvement in the district.

Louisiana—Chief State Engineer, Frank M. Kerr; State Highway Engineer, W. E. Atkinson, both of New Orleans. The State will spend $150,000 for road construction.

Kentucky—State Commissioner of Public Works—Robert C. Terrell; First Asst. Highway Engineer, R. H. Reese, both of Frankfort. An additional tax of five cents will net about $600,000 which will be apportioned to several counties, the state paying half and the county, half. In addition five counties have voted bonds aggregating $1,500,000 and 13 other counties will vote on $2,015,000.

Tennessee—County Engineer, E. G. Buck, Jackson, Tenn. No definite amount has been appropriated for road construction. The General Assembly proposes to enact laws providing for a State Highway Department and to improve roads on the state aid plan.

Ohio—State Highway Commissioner, Clinton, Cowen, Columbus. About $2,250,000 has been appropriated for road construction. Approximately $8,000,000 worth of road work is now under contract.

Indiana—County Engineer, C. E. Cheney, Indianapolis. Road work is not done by the State but by the township within which the road lies. Townships of Marion County will spend about $200,000 on the construction of new roads this year, and the County will spend about $150,000 on the maintenance of existing roads.

Michigan—State Highway Commissioner, Frank F. Rogers, Lansing. No appropriations made as yet for road construction.

Illinois—Chief State Highway Engineer, William W. Marr, Springfield. The State will spend $1,000,000 for road work this year.

Wisconsin—Chief Engineer, Wisconsin Highway Commission, A. R. Hirst, Madison, Wis. About $4,000,000 will be spent for road work this year. One third of this amount will be furnished by the State and two-thirds by the Towns and Counties.

Iowa—Highway Engineer, Thomas H. MacDonald, Des Moines.

Minnesota—State Engineer, George W. Cooley; Deputy State Engineer, J. H. Mullen, both of St. Paul. The State will spend about $1,500,000 for road work this year.

Kansas—State Engineer, W. S. Gearhart, Manhattan.

Nebraska—State Engineer, Donald D. Price, Lincoln. No appropriations have been made for road work.

South Dakota—State Engineer, Homer M. Derr, Pierre, S. D. There is no state fund for highway work, but $1,229,000 has been levied by the various counties.

North Dakota—State Engineer, Jay W. Bliss, Bismarck, N. D. There is no state supervision of highway construction in this state. The Highway Commission acts as an advisory board. No appropriations have been made for road work.

Wyoming—State Engineer, J. B. True, Cheyenne, Wyo. No direct expenditures for road work by the State but the Counties will spend about $400,000.

Missouri—State Highway Commissioner, Frank W. Buffum, Jefferson City, Mo.

Texas—State Reclamation Engineer, Arthur A. Stiles, Austin, Tex. Roads are built by the various counties.

Colorado—Engineer Roads and Bridges, J. E. Maloney; State Highway Commissioner, T. J. Ehrhart, both of Denver. About $200,000 will be spent by the State and $1,500,000 by the Counties for constructing and maintaining roads this year.

New Mexico—State Engineer and State Highway Commissioner, James A. French, Santa Fé, N. M. The State will spend $120,000 and the counties, $400,000, for the construction of roads this year.

Utah—State Engineer, W. D. Beers; State Road Engineer, E. R. Morgan, both of Salt Lake City. The state plans to spend $500,000 or over for road work during the year.

Nevada—State Engineer, W. M. Kearney, Carson City.

Arizona—State Engineer, Lamar Cobb, Phœnix, Ariz. An appropriation of $396,000 has been made for road work this year.

Washington—State Highway Commissioner, William R. Roy; Chief Engineer State Highway Commission, James Allen, both of Olympia. The State Legislature has appropriated $2,150,288 and re-appropriated $153,640 for the construction and maintenance of state highways and $4,000,000 for the construction and maintenance of other permanent highways. In addition the various counties will spend about $4,000,000 for constructing roads and bridges. The above does not include any expenditures that may be made within the limits of incorporated cities or towns.

California—State Engineer, W. F. McChue; Highway Engineer, Austin B. Fletcher. The state will spend about $5,000,000 this year on highway improvements.

PRICE CHANGES AND THE BUSINESS OUTLOOK

Construction work looks more promising than for many months, but there has been such a dearth of anything like normal construction for at least seven months that contractors are hungry for work, and are taking it at extremely low figures. It is evident that a good deal of work will come out later in the year, particularly by municipalities who have been advised to postpone construction, and much of this will necessarily be at materially higher prices. It seems evident that more concrete road construction will be done this year than ever before. The low cost of other materials, notably cast-iron pipe, is responsible for considerable work.

Orders for war materials have been the chief matter of interest in the iron and steel market, and while the tonnage involved is not large, the amount of money which will be expended in machine shops for the manufacture of war materials is enormous.

The improvement in financial conditions has enabled municipalities and governments to put out long-time bonds, and on a more favorable basis than last year. The general financial situation has decidedly improved. A month ago there was plenty of money for temporary needs, but comparatively little for long-time financiering. There is still a plethora of loanable funds for day-to-day needs, and quite a little capital is seeking investments. The unique conditions of the United States in financing South American countries, as well as European countries which formerly had been able to secure their funds in London markets or at home, argues well for an expansion of foreign trade.

The iron trade has shown slightly more activity, the output of iron during February showing an increase of more than 10%, compared with January and a decrease of only 10% compared with February of last year. The unfilled orders of the United States Steel Corporation increased during February, and at the end of the month were larger than at the end of July, 1914—just previous to the breaking out of the war. The steel trade is running at about 60% of capacity, although in some departments, such as fabricated steel, the ratio of operations comes far below this proportion. Pig iron business was uniformly dull throughout the month, but some encouragement has been noticed within the last few days.

Railroads are not large buyers of steel products, but are more interested in the market than they have been for some time. Then, too, there has been a change of sentiment toward the railroads, and not as much hostility as formerly. Few car orders have been reported, chiefly because the railroads now have 300,000 idle cars on their lines, but it is lamentable that the railroads have allowed their equipment and motive power to deteriorate in the way it has. Should there be a return to anything like normal traffic conditions, the motive power and rolling stock of most of the lines at least will be entirely inadequate to meet the demand. A few of the trunk lines are making improvements suspended some time ago, but most of them are attempting to improve the maintenance which has necessarily been allowed to slacken.

Metals show an improvement both in demand and price. Copper is squarely at 15c., with a very good foreign demand and slightly better domestic inquiries, although these latter are not large. Lead is higher and spelter is exceedingly scarce. The sharp fluctuations in the tin market are caused by a shortage of the supply in the United States, but this will be remedied.

Shipbuilding contracts have been fairly large, a number of boats being planned both on the Atlantic Seaboard and the Great Lakes. Some plants which have been idle for a number of years have been rehabilitated.

The phenomenal returns of foreign trade are highly gratifying. In February alone, the United States exported $170,000,000 more worth of goods and supplies than was imported. Moreover, there will be less money spent by American tourists in Europe this year than ever before since the Civil War.

Preparations for phenomenal wheat crops are being made, and it is evident that even with a bumper crop, prices will be unusually high.

The announcement that one of the shrewd men of the cement trade, E. M. Hager, intends to establish a chain of cement mills across the country, particularly in the undeveloped country, is simply an indication that competent judges believe business is going to be considerably more active.

Activity in the Pittsburgh district is evident. Following the announcement that the Allegheny County Commissioners would at once begin construction work involving the outlay of $5,000,000, the City Council of Pittsburgh agreed with the Baltimore & Ohio R.R. and the Pittsburgh Rys. Co. to begin work on the elimination of the 33d St. grade crossing at Liberty Ave. The estimated cost is $500,000. Besides this the city will start the work of raising all the streets between Eighth St. and the Monongahela and between the Allegheny River front and Liberty Ave. The municipal improvement will be started by Apr. 1, as most of the damage waivers given by property owners will expire on that date and the city is desirous of keeping out of any unnecessary litigation. It entails not only the raising of several miles of thoroughfares in the very heart of the downtown section of Pittsburgh but makes necessary the razing, rebuilding or extensive alterations of all the factories, mills, stores, lofts, hotels, dwellings and, in fact, every structure in the district. With this job, the grade crossing elimination, the construction of the new tunnel through Mt. Washington, the new City-County Bldg., the William Penn Hotel and the Schenley High School all under construction at the same time, the money spent will amount to considerably more than ten millions. The coming summer promises to be the best since the summer of 1912 when there was a labor famine in the Pittsburgh district.

Highway building will be more active than ever, a report on a previous page shows that the various states will spend for state aid highways about $60,000,000. At this the appropriations for some large states—notably Pennsylvania—have not been received.

Will There Be a Scarcity of Labor?

The repeal of the objectionable features of the Alien Labor Clause by the New York Legislature has permitted construction work on the New York subways to go forward. Preference is given to native labor, but unfortunately very few of the men who will work for the wages of the alien are physically able to perform the work. There does not seem to be the great surplus of rough labor which one would naturally expect with so many mechanics out of work. This is accounted for by the returns of the Department of Commerce and Labor, which show that the steerage passengers going east across the Atlantic outnumber those coming into the United States.

Immmigration statistics for the past several months have shown a steady falling off in the number of aliens arriving at these shores, and although there is no pressing need for laborers, some are seriously questioning whether there will be a sufficient number to care for the work when prosperity returns.

Since the first canals were built, practically the earliest important construction work in the United States, the heavy manual labor has been done by recently arrived immigrants. Most of these came from Europe, but Africa contributed her share, sending early plantation laborers to the South, and in the early '50's there was a migration of Orientals. The discovery of gold in California drew adventurers from all parts of the world, and the high record of 427,000 aliens admitted in one year was established in 1854. During the Civil War, immigration was materially reduced, and fell to 72,000 in 1862. The record of '54 was unequaled until 1873, when 459,000 aliens were admitted, and a new high record was again set up in 1881, when 669,000 came to these shores; but this was exceeded in the following year. This record stood until 1903, since when the records have been repeatedly broken, although that established in 1907, when 1,285,000 aliens were admitted, still stands. In the seven months ending with January, 1915, only 296,000 arrived, compared with 883,000 in the corresponding period last year. Further than that, departures in the first seven months of third-class and steerage passengers actually exceeded the arrivals, so there has been a distinct loss on immigration.

There are several reasons to account for this, namely, the war in Europe and the impossibility of some countries sending any immigrants, such as Russia, which in the six months ending Jan. 1, 1914, sent us 175,000, compared with 25,000 in the corresponding period in 1915. Emigration from Austria and Hungary both was cut off by the lack of transportation, and the fall in Italian migration to this country from 173,000 in the last six months of 1913, to 27,000 in the last six months of 1914, is more readily traceable to economic conditions in this country than from the lack of transportation facilities.

When the war is over, as it will be some day, there will be a vast amount of new construction necessary in Europe, but it is scarcely probable that Italian laborers will be called to repair damage in northern France, Belgium or Poland. Such reconstruction will necessarily be slow. The high wages offered by America in times past cannot be paid by those countries, but in other European countries, where the ravages of war have not taken place, if there be such, there will be no great amount of work to be done. As most of the efficient labor for construction work has come from Italy, there is little doubt that that country will continue to send us laborers when we need them. From the Scandinavian peninsula will be drawn farmers, and from Hungary and Austria other forms of labor which have been so useful in the past. While there may be a temporary shortage, this is not likely to continue for any length of time.

CEMENT, LIME AND BRICK

Sales agents in the New York market are not at all optimistic over the outlook. So much cement has been sold for forward delivery at low prices that it will take a vast amount of construction work to bring quotations to anything like normal. The low quotation at $1.23 New York, equivalent to about 60c. per bbl. in bulk at the mill, continues, and, although many dealers have filled their available storage places, it has not had the effect on the storehouses and the mills that was expected. Numerous salesmen from a mill which has been one of the important factors in cutting quotations for a number of years, are seeking positions, and this leads to the belief that this price cutter has been eliminated for the time being. The announcement that E. M. Hagar, former President of the Universal Portland Cement Co., is forming a company to build a chain of cement mills across the country, is a reflection of the optimism in the West. It is known that the cement mills there have had much more business than the eastern mills, and the excellent outlook for concrete highway construction this year promises well for the maintenance of quotations in that field. Cement prices, less the charge of 40c. made for bags, are as follows:

Chicago	$1.11	Boston	$1.46
Detroit	1.19	Cleveland	1.16
Jersey City	0.74	Duluth	1.32
New York	0.82	Minneapolis	1.30
St. Paul	1.30	Pittsburgh	1.00

Brick—Prices are steady and there seems to be a better demand. It is probable that business will show an improvement compared with last year, but this has not been reflected in the price. It would seem unlikely that any considerable advance could take place in the near future, but many men believe the present year will witness the greatest building boom since 1906. Hudson River common brick sell at $5.50@6, New York.

Gravel—An improvement in the demand is evident and prices are firm. Ordinary gravel sells at 85c., but subway gravel is held at $1.15. These prices are for barge loads of 500 cu.yd. delivered alongside of dock, New York.

Lime—It is evident that business is better. For what business is doing prices remain unchanged at 97c. per bbl. for state common, 200 lb. net; $1.37 for 30 lb. barrel; $1.55 for 300 lb. finishing; $1.10 for 200 lb. finishing; and $1.72 for 350 lb.

Crushed Stone—Prices are steady at 80@85c. for 1½-in. stone and 90@95c. for ¾-in. stone.

IRON AND STEEL

Pig Iron—The extremely quiet condition of pig iron which has prevailed ever since November continued until the latter part of the month when Buffalo furnaces reduced prices and obtained orders amounting to about 175,000 tons, making concession in prices of about 50c. a ton. Advices from that point indicates a large business in No. 2X foundry at $12, while No. 2 was quoted at $11.75. The principal buyers were foundries in New York, New England and New Jersey, and in some cases sales went into the second half of the year. It was expected that producers in the Central West and Chicago would follow the example of Buffalo when, late in the month, Buffalo interests reëstablished the old prices. This arrangement however, is understood to be temporary. Virginia furnaces are reported to have sold a number of small lots of foundry for Eastern and New England delivery for shipment over the last half of the year. Nearly all of the Tennessee iron sold of late was in warrant yards, and sales were made as low as $9 for No. 2 Foundry, in Birmingham. A hopeful tone is voiced by the leading producers and large business is confidently predicted.

Prices are slightly lower and for lots of 100 tons or over at the points named are as follows: Cincinnati, Southern Foundry No. 2, $12.25@12.75; Northern Foundry, No. 2, $14@14.50; Northern Foundry No. 3, $13,75@14. In New York quotations are as follows: No. 2X Northern Foundry, $14@14.25; No. 2 plain Northern Foundry, $13.75@14. No. 2 Southern Foundry, delivered, $14@14.25. In Birmingham Southern Foundry No. 2 is $9.25@9.75. In Chicago, Northern Foundry is $13@13.25. In Pittsburgh bessemer iron is $14.55 and basic $13.45, including the 95c. freight rate from the valley to the Pittsburgh district.

Steel Rails—Few orders of any moment have been booked for standard rails. The chief interest in the steel market is in the placing of the Pennsylvania orders. The railroads do not seem to be in any hurry about placing their orders, and evidently are trying to bargain for better cropping. Some considerable business has been transacted in light rails, and a few export orders have been placed. It is rumored that some business will be booked for Argentine as a result of the credit established by New York bankers. Prices are of course unchanged. The standard prices for lots of 1000 tons are as follows: Standard sections of bessemer, $28; openhearth, $30, both f.o.b. Pittsburgh, per net ton. Girder rails, 30-ft. length, are $36.40 per gross ton, and 60-ft. length $38.40 per gross ton, both f.o.b. New York. Other quotations f.o.b. Pittsburgh for large lots, the price being given in cents per pound, are as follows: Standard sections 1.25c., 25 to 35 lb. 1.15c., 15 to 20 lb. 1.20c., 12 to 13 lb., 1.25c., 8 to 12 lb. 1.30c. Relaying rails from New York are quoted at a slightly higher figure of $19.50.

Structural Shapes—The fabricating shops of the country are operating about 35% of capacity, whereas the steel trade is working for nearly 70% of capacity. Bridge work is coming out very slowly, and large buildings are scarcely being figured. There are a few roof trusses, but these do not run into tonnage. One of the peculiarities in trade is that it is possible to secure shapes with a few punching, or slightly fabricated, in the New York market at a cheaper price than plain material can be had. For shipbuilding work there is a fair demand but other than this the construction which has developed so far this year is for work where there will be little structural steel used. Quotations are as follows: I-beams, 3 to 15 in.; channels, 3 to 15 in.; angles, 3 to 6 in.; tees, 2- to 3-in. and over, $1.15. Other quotations, including I's over 18 in., H-beams 18 in., channels over 15 in., angles over 4 in., $1.30. Tees, $1.25. Deck beams and bulb angles, $1.50; handrail tees, $1.95. Cutting to specified length is charged at the following rate: Cutting 3 ft. to 2 ft. inclusive, 25c. per 100 lb.; 2 ft. to 1 ft. inclusive, 50c. per 100 lb.; less than 1 ft., $1.55. No charge is made for cutting to lenghs over 3 ft. In Chicago the base price is $1.34, in New York $1.26 to $1.31, in Philadelphia $1.25 to $1.30, and San Francisco $2 to $2.05.

Plates—Continued activity at the shipbuilding plants, together with the knowledge that there will be a great deal more work in this line within the next few months, gives much promise to the market. The price is supposed to be $1.20, Pittsburgh, and in fact $1 a ton higher all around than last month, which would mean $1.35 to $1.40, Philadelphia; $1.36 to $1.41, New York, and $1.35 to $1.39, Chicago, but this price is not closely adhered to, and there seems to be considerable cutting of quotations. Japan is figuring on 15,000 tons additional, following the order for 22,000 tons early in the month. Car-building work is very light, but there have been a few orders from Western roads for tank cars, and it is evident that the motor-car business will increase. The ability of railroads to finance many improvements should be most helpful to the plate market in the near future. Shipbuilders have taken at least 75,000 tons in the last few weeks, and more orders of like character are being figured. In the Pittsburgh district the plate mills are operating to about 70% of capacity.

Cast-Iron Pipe—Business continues fair. Developments are more noticeable in the Mississippi Valley and the Central West, than a month ago, and are relatively less in the East. There are a number of fair sized inquiries in the market, and the 13,000-ton order for Cleveland is peculiar from the fact that it involves some large sized pipe—36-, 42- and 48-in. Prices are slightly higher in Birmingham, but easier in Chicago. The following quotations are given per net ton: Birmingham, 4 in., $20, 6 in., $18; Chicago, 4 in., $25.50, 6 and 12 in., $23.50, 16 in. and upwards, $23; in New York, 6 in. and larger, $20. Gas pipe is $1 a ton higher in all markets.

Pipe—The market is steadier than a month ago and operations are larger, the ratio being about 70% of capacity. Quite a few orders of importance are in sight. It is evident that the fear about not having sufficient spelter to galvanize pipe was warranted, but the mills are holding back shipments on this class of material as much as possible. Prices on black pipe are low, considering the cost of materials, and the same applies to galvanized pipe, but, of course, these are high by comparison. Discounts are unchanged, and for large orders, amounting to carload or more, are as follows:

	Black	Galvanized
¾- to 2-in. steel, butt welded	80%	69½%
2½- to 6-in. steel, lap welded	79%	68½%
7- to 12-in. steel, lap welded	77%	66½%

At these discounts, the net prices of pipe per foot, in large lots, at Pittsburgh are as follows:

	Cents			Cents	
Diameter	Black	Galvanized	Diameter	Black	Galvanized
¾-in.	2.20	3.50	5-in.	31.00	47.00
1-in.	3.40	5.20	6-in.	40.40	61.00
1¼-in.	4.60	7.00	7-in.	55.00	80.00
1½-in.	5.50	8.40	8-in.	57.50	84.00
2-in.	7.40	11.15	9-in.	79.50	$1.16
2½-in.	12.20	18.60	10-in.	95.00	$1.38
3-in	16.10	24.20	11-in.	$1.06	$1.55
4-in.	22.90	34.50	12-in.	$1.17	$1.70

Sheets—The mills are operating to about 65% of capacity, and while galvanized sheets are not so scarce and it is easier to get supplies, deliveries are by no means as backward as they were. Another factor has appeared in the galvanized market, and that is that jobbers and other large consumers who have contracted for a fairly large amount, seeming to have a surplus, are selling at some times at less than the market quotation. This, of course, is having effect on mill quotations, and leads to considerable talk about unevenness in price. The demand is fair, but not as large as a few weeks ago, when the trade was thoroughly scared, and it was feared that consumers would be unable to secure galvanized sheets.

The following quotations are for large lots of sheets in Pittsburgh, and small lots from store, New York.

	Cents per Pound			
	Large lots Pittsburgh		Warehouse delivery New York	
	Black	Galv.	Black	Galv
No. 10	1.55	2.40	....	....
No. 12	1.55	2.50	....	....
No. 14	1.60	2.50	....	....
No. 16	1.65	2.60	2.35	3.25
Nos. 18 and 20	1.70	2.80	2.40	3.40
Nos. 22 and 24	1.75	2.90	2.45	3.55
No. 26	1.80	3.05	2.50	3.70
No. 27	1.85	3.25	2.55	3.85
No. 28	1.90	3.40	2.60	4.00

Steel Shapes—Prices are not as steady as they might be, although the following quotations are supposed to represent the New York market. It is cheaper to buy shapes with a few holes punched in them, as fabricated material, rather than pay the full store price for plain material. In Jobbers' Warehouse, New York, prices are as follows:

	Cents Per Pound
Refined iron:	
1 to 1⅞ in., round and square	1.85
1½ to 4 in. x ⅜ to 1 in.	1.85
1½ to 4 in. x ¼ to 5/16 in.	2.05
Norway bars	3.20
Burdens bar iron	3.15
Soft steel:	
¾ to 3 in., round and square	1.85
1 to 6 in. x ⅜ to 1 in.	1.85
1 to 6 in. x ¼ and 5/16	2.00
Rods—⅝ and 11/16 in.	1.95
Bands—1½ to 6x3/16 in. to No. 8	2.15
Beams and channels—3 to 15 in.	1.90
Angles:	
3 in. x ¼ in. and larger	1.90
3 in. x 3/16 in. and ⅛ in.	2.35
1½ to 2¾ in. x 3/16 in. and thicker	2.00
11½ to 2½ in. x ⅛ in.	2.10
1 to 1¼ in. x 3/16 in.	2.10
1 to 1¼ in. x ⅛ in.	2.15
Tees:	
1½ to 2½x¼ in.	2.05
1½ to 2½x3/16 in.	2.15
3 in. and larger	1.95

Old Materials—The market is very uneven. Advances are the rule in Pittsburgh, in New York there are more advances than declines, but in Chicago the market is undeniably down from last month. A fair demand for cast scrap is noted, but the rolling mills are doing little or no business. The low prices in Chicago are probably due to the oversupply of material, mostly coming from the railroads. This has been unusually large for two or three weeks, and there has been an especially large tonnage of car wheels turned in, which reduced the prices on that market below what they normally would be. In Pittsburgh, dealers are reluctant to sell, preferring to hold stock on hand for higher prices, and those who have stock will not dispose of it at these low figures. Therefore the market is relatively better. Prices in New York per gross ton are as follows:

	Per Gross Ton
Heavy-melting steel scrap	$8.75 to $9.00
Pipes and flues	8.00 to 8.25
No. 1 railroad wrought	10.50 to 11.00
Stove plate	7.75 to 8.00
No. 1 machinery cast	10.50 to 11.00
Wrought turnings	6.25 to 6.50

The Chicago market is, as stated, slightly lower. Quotations are as follows:

	Per Gross Ton
Heavy-melting steel scrap	$9.25 to $9.75
	Per Net Ton
No. 1 railroad wrought	$9.00 to $9.25
No. 2 railroad wrought	8.50 to 8.75
No. 1 cast scrap	9.00 to 9.25
Pipes and flues	6.75 to 7.25
Agricultural malleable	7.25 to 7.50
Railroad malleable	8.00 to 8.50

The higher prices in the Pittsburgh market are reflected in the following quotations:

	Per Gross Ton
Heavy-melting steel scrap	$12.00 to $12.25
Re-rolling rails	11.75 to 12.00
No. 1 foundry cast	12.00 to 12.25
Old car wheels	10.75 to 11.00
Machine shop turnings	8.00 to 8.25
Railroad malleable	10.00 to 10.25

Freight Rates—The freight rates on finished steel products from the Pittsburgh district, including plates, structural shapes, merchant steel, bars, pipe fittings, plain and galvanized, wire nails, rivets, spikes, bolts, black sheets (except planished), chain, etc., are as follows, in cents per 100 lb.: Boston, 18.9c.; Buffalo, 11.6c.; Baltimore, 15.4c.; Cleveland, 10.5c.; Cincinnati, 15.8c.; Chicago, 18.9c.; Denver, Colo., 68.6c.; New Orleans, 30c.; New York, 16.9c.; Philadelphia, 15.9c.; St. Louis, 23.6c.; Minnesota and St. Paul, 32.9c.; Pacific Coast (all rail), 80c.

Steel Sheet Piling—Prices are without change at 1.55@1.60c. per lb. f.o.b. Pittsburgh.

Wire Rope—A fair inquiry leads to the belief that better business may be expected. Discounts are unchanged at 47 and 5% from list for galvanized, and 55 and 5% for bright. At these discounts the net price of wire rope at the mill is as follows:

Diameter in Inches	Price per Foot		
	Cast Steel	Crucible Steel	Plow Steel
2½	$0.75	$0.90	$1.07
2¼	0.61	0.73	0.86
2	0.47	0.57	0.67
1¾	0.39	0.49	0.58
1½	0.28	0.34	0.40
1¼	0.20	0.24	0.27
1	0.13	0.15	0.18
¾	0.08	0.09	0.11
⅝	0.06	0.07	0.08

Wire—A continued heavy demand from abroad is keeping the mills active and specifications against contracts placed at much lower prices by domestic consumers are liberal. Prices are slightly higher, and per 100 lb. f.o.b. Pittsburgh are as follows: Plain wire to retailers, $1.50; galvanized wire to retailers, $2; painted barbed wire, $1.70; galvanized barbed wire, $2.20. Wire nails are $1.75 and galvanized wire nails $3.30.

Coke—In spite of a larger demand, an increased output and a better feeling in the trade, the price is lower than a month ago. Prompt shipments can be had at $1.50@1.55 delivery up to July 1 at $1.65 and contracts for the second half $1.75. Foundry coke is very quiet, selling at $2@2.15 for prompt and $2.25@2.40 for contracts.

CLAY PRODUCTS

Sewer Pipe—No marked change has been shown in the market, although there have been indications of a general improvement. Discounts remain unchanged as follows: 3 to 24 in., 78%; 27 to 30 in., 70%; 33 to 36 in., 65%. At these discounts, net prices are as follows:

PRICE OF SEWER PIPE PER FOOT

Size		Size	
3-in	$0.055	18-in.	$0.418
4-in.	0.055	20-in.	0.495
5-in.	0.088	22-in.	0.66
6-in.	0.088	24-in.	0.715
8-in.	0.1265	27-in.	1.35
10-in.	0.184	30-in.	1.65
12-in.	0.22	33-in.	2.20
15-in.	0.297	36-in.	2.45
18-in.	0.418		

Flue Lining—Conditions are about the same as they were a month ago, discounts being 80 per cent. from list. At this rate, prices are as follows:

FLUE LINING PRICE PER FOOT

Size	Weight in Lb.	Price per Ft.	Size	Weight in Lb.	Price per Ft.
4½x8½-in	14	$0.07	8½x18-in	45	$0.18
4½x13-in	20	0.09	13x13-in	45	0.17
7½x7½-in	15	0.08	13x18-in	57	0.24
8½x8½-in	18	0.09	18x18-in	75	0.40
8½x13-in	28	0.13			

REINFORCING MATERIALS

Bars, Concrete Reinforcing—Inquiries are far more numerous and there is a prospect that much work will come out. The advance of $1 per ton announced, some time ago, for Apr. 1 went into effect raising the quotation to 1.20c., Pittsburgh. Other prices are as follows:

Size	Cents per Pound		
	Mill Shipments Pittsburgh	*Warehouse Pittsburgh	Delivered from *Warehouse New York
¾-in and larger	1.15	1.50	1.95 to 2.00
⅝-in.	1.20	1.65	2.00 to 2.05
½-in.	1.35	1.80	2.15 to 2.20
⅜-in.	1.45	1.90	2.25 to 2.30
¼-in.	1.75	2.20	2.60 to 2.65

*Bars from warehouse are cut to desired length without extra charge.

Triangle Mesh—Prices continue steady and there is a fair inquiry:

PRICE PER 100 SQ.FT.

Style No.	Cross Sec. Area per Ft. Width	Plain Material		Galvanized	
		Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.	Carload Lots	Less Th Car Lot and Ove 10,000 Sq.Ft.
†4	0.102	$1.00	$1.23	$1.12	$1.34
5	0.077	0.80	0.97	0.89	1.00
6	0.058	0.63	0.77	0.71	0.84
†7	0.041	0.49	0.60	0.55	0.66
†23	0.170	1.69	2.05	1.88	2.24
24	0.142	1.46	1.77	1.62	1.93
25	0.124	1.29	1.57	1.43	1.71
†26	0.110	1.17	1.42	1.30	1.55
†27	0.085	0.96	1.17	1.07	1.28
28	0.066	0.80	0.97	0.89	1.06
29	0.049	0.66	0.80	0.73	0.87
31	0.261	2.49	3.02	2.76	3.29
32	0.225	2.16	2.62	2.40	2.86
33	0.196	1.93	2.34	2.14	2.55
34	0.146	1.48	1.80	1.64	1.96
35	0.109	1.117	1.42	1.30	1.55
36	0.075	0.87	1.05	0.97	1.15
38	0.380	3.55	4.30	3.93	4.68
†39	0.325	3.05	3.70	3.38	4.03
40	0.283	2.68	3.25	2.97	3.54
41	0.208	2.05	2.48	2.27	2.70
42	0.151	1.55	1.88	1.72	2.05
†43	0.101	1.10	1.34	1.23	1.46

†This material is made in regular widths of 18, 22, 26, 30, 34, 42, 46, 50, 54 and 58 in. Standard lengths in rolls are 150, 250, 300 and 600 ft.

Copper—Lack of competition among the large producing interests resulted in higher prices for electrolytic. Another cause for the higher prices was the action of the British Government in taking over all copper which it has prevented from going to Germany. The producing interests are asking 15¾c. delivered thirty days, while there are few buyers at 15½c. Business from abroad has fallen off and the domestic orders for manufactured material continue small. For the first 27 days of March exports from New York amounted to 25,100 tons and imports at Atlantic ports only aggregated 5810 tons.

Tin—A marked advance in the price of tin during the past month has been brought about mainly by the limited amount of imports. The net gain after a sensational rise is about 10c. and the present price being around 47½c. for spot for five ton lots. Imports during March amount to 780 tons and cargoes afloat amount to 2945 tons. The market has been anything but steady, the price having gone as high as 55c. The prospects now appear to indicate a more liberal supply for the United States and consumers are inclined to buy in small quantities, expecting a reaction from prevailing high prices.

Lead—The price for lead has advanced steadily and a firm tone to the market has been evident from the steadiness manifested. Spot was held at 4.15c. New York and 4.10c. East St. Louis with a fair demand.

Spelter—The market for a month past has been unsettled prices advancing as high as 11½c. for spot. Reaction ensued and some sales of 50,000 lb. lots were reported as low as 8½c. for April delivery. Single car loads of spot are quoted at 9¼c. New York and 9⅛c. East St. Louis.

Old Metals—Selling prices of old metals are as follows:

	Cents per Lb.
Copper, heavy and crucible	14.00 to 14.25
Copper, heavy and wire	13.65 to 14.00
Copper, light and bottoms	12.50 to 12.80
Heavy machine composition	11.50 to 11.80
Brass, heavy	9.50 to 9.75
Brass, light	7.65 to 8.00
Clean brass turnings	9.40 to 9.70
Composition turnings	9.75 to 10.25
Lead, heavy	3.80
Lead, tea	3.50
Zinc, scrap	6.50

Miscellaneous Metals—The prices of various metals from jobbers' warehouse, New York, are as follows:

	Per Pound
Brass tubes, iron-pipe sizes:	
½ in.	19.00c.
¾ in. to 3 in.	18.00c.
3½ in.	18.00c.
4 in.	19.00c.
Brass rods	17.00c.
Brass sheets	17.25c.
Solder	35.00c.
Copper tubes	21.50c.
Zinc sheets	14.00 to 14.50c.
Copper sheets	19.75c.
Pig tin (five-ton lots, cash)	60.00c.
Bismuth	$3.75 to $4.00

MISCELLANEOUS

Railway Ties—No change has occurred during the month and shipping conditions remain about the same. First-class standard ties are quoted as follows: 7x9-in. by 8 ft. 6 in., 72c.; 6x8 in. by 8 ft., 63c. These prices are f.o.b. New York.

Rubber—Prices are somewhat easier while the demand is large. The rubber markets have presented many curious phases during the last few years, but none of them more uncertain than for the past few months. Up River Para fine is quoted at 58c., while up-river Para coarse to 47c. Island fine 53 to 54c., Ceylon sheet is 54c. and Ceylon crepe is 65c. Old rubber shows little change. Automobile tires sell at 4¾c., bicycle tires at 3c., airbrake hoses, 2½ to 3c., and inner tubes, 12 to 14c.

RAILWAYS

New York—According to press reports plans are being made by the MacIntyre Iron Co., Sanford, for the construction of a railway from Sanford Lake to Tahawus, N. Y.

Virginia—New York, Philadelphia & Norfolk R.R.—This company is preparing plans for extensive improvements to its system. M. W. Clement, Cape Charles City, Va., is Div. Engr.

Virginia—Radford-Willis Southern Ry.—T. W. Simpson, Engr., is making surveys for the construction of a railway from Radford to Willis, Va., about 25 miles. John L. Vaughan, Shawsville, Va., is Pres. Noted Feb. 25.

West Virginia—Virginian Ry.—Bids will soon be received by this company for the construction of a railway from Stone Coal, W. Va., to Stone Coal Creek, about six miles. H. Fernstrom, Norfolk, Va., is Ch. Engr.

West Virginia—West Fork R.R.—This company is being organized to construct a railway from Fairmont, W. Va., to Monongah and Grafton, W. Va., about 18 miles. Scott C. Lowe, J. A. Jamison and M. A. Fletcher are interested.

North Carolina—Avery Northwestern Ry.—Preliminary work will soon be started by this company on the construction of its proposed railway from Edgemont to Newland, N. C. P. M. Brown, Newland, is Pres. and W. W. Barber, Edgemont, is Mgr. Noted Mar. 18.

North Carolina—Carolina & Northwestern Ry.—According to press reports this company contemplates the improvement and extension of its lines from Newton, N. C. J. W. Fletcher, Jr., Chester, S. C., is Roadway Supt.

North Carolina—Graham County R.R.—E. Philbrick, Cornelia,, Ga., has been retained as consulting engineer for the construction of the proposed railway from Andrews to Robbinsville, N. C.

Georgia—Ocilla Southern R.R.—This company is making surveys for the extension of its line to Macon, Ga. The company now operates a line from Nashville to Rochelle and is constructing a line from Rochelle to Pope City. D. C. Smith, Ocilla, is Gen. Mgr. Noted Dec. 24 and Mar. 11.

Georgia—Ocmulgee Valley Ry.—Preliminary arrangements are being made and work will soon be started by this company on the construction of the proposed railway from Jacksonville, Ga., to Lumber City, Ga., about 20 miles. J. C. Work, Lumber City, is Ch. Engr. Noted Mar. 4.

Alabama—The construction of a 15-mile railway from Tuscaloosa, Ala., to the timber lands, is contemplated by Fox Henderson, Troy, Ala., and associates.

✚Alabama—The Tidewater Securities Corporation has awarded a contract to J. N. GILLIS & SON, Brewton, Ala., for the construction of a railway from Alabama Port to Cedar Point, Ala.

Wisconsin—Minneapolis, St. Paul & Sault Ste. Marie Ry.—The construction of an extension from Dresser Junction to New Richmond, Wis., is contemplated by this company. C. N. Kalk, Minneapolis, Minn., is Ch. Engr.

Wyoming—Beaver Hills Coal Co.—Plans are being considered by this company for the construction of a 10-mile railway from Sheridan, Wyo., to its mines.

Montana—Keating Gold Mining Co.—According to press reports this company will construct a railway from Toston to Radersburg, Mont., about 14 miles.

Texas—J. Shelby, El Paso, Tex., is reported interested in the construction of a 28-mile railway from Sierra Blanca, Tex., to the coal fields.

ELECTRIC RAILWAYS

New Britain, Conn.—The Hartford, New Britain & Meriden Ry. Co. has applied to the Council for a franchise to extend its lines by another route to New Britain.

New Britain, Conn.—The New Britain, Kensington & Meriden Ry. Co. is making arrangements to complete the construction of its electric railway from Meriden to New Britain. E. A. Moore, New Britain, is Pres.

Buffalo, N. Y.—The International Ry. Co. contemplates the extension of its line on South Park Ave. to the south city line. J. C. Sheldon, Buffalo, is Pur. Agt.

Mt. Vernon, N. Y.—The Council has granted a franchise to the Westchester Electric Ry. Co. for the extension of its North Pelham-Mt. Vernon line from the North Pelham village line to Union Corners, East Chester. William B. Wheeler, 519 South Fifth Ave., Mt. Vernon, is Supt.

Watertown, N. Y.—Plans are being prepared by the Black River Traction Co. for an expenditure of $15,000 for the improvement of its lines in Watertown. L. Schwerzmann, Watertown, is Gen. Mgr. and Pur. Agt.

Jersey City, N. J.—The State Senate, Mar. 23, passed the bill providing for the construction of a belt railway by the city to connect the railroad trunk lines.

Trenton, N. J.—Plans are being prepared by the Trenton & Mercer County Traction Co. for the extension of its North Olden Ave. division from East State St. to North Clinton Ave. William H. Hitchcock, Trenton, is Gen. Mgr.

Pittsburgh, Penn.—The Pittsburgh Rys. Co. contemplates double-tracking its Beechview line to Mt. Lebanon. P. N. Jones, Pittsburgh, is Gen. Mgr.

Miami, Fla.—The Miami Traction Co. is considering plans for the construction of an electric railway on the Southside in Miami. B. B. Tatum, Miami, is Pres.

Louisville, Ky.—The Louisville Ry. Co. has purchased a franchise to construct a double-track electric railway from the terminus of its Chestnut St. line to Shawnee Park, about two miles. W. H. McClure, Louisville, is Pur. Agt.

Ludlow, Ky.—The South Covington & Cincinnati St. Ry. Co. has been granted a franchise for the construction of an electric railway in Ludlow.

Cleveland, Ohio—The City Council has granted a franchise to the Cleveland Short Line for an extension of its railway in Cleveland.

Jefferson, Ohio—The Chardon, Jefferson & Meadville Interurban Ry. Co. is making preliminary arrangements for the constuction of its proposed electric railway to connect Chardon, Hampton, Rock Creek and Jefferson, about 30 miles. Noted Feb. 26, 1914.

Angola, Ind.—The St. Joseph Valley Ry. Co. has applied for a charter to construct an electric railway from Angola, Ind., to Toledo, Ohio.

Benton, Ill.—The Southern Illinois & St. Louis Ry. Co. is making preliminary arrangements for the construction of an electric railway to connect Benton, West Frankfort, Warren, Marion and Johnston City. W. H. Schott is Pres.

Danville, Ill.—The residents of Oaklawn, a suburb of Danville, have petitioned the Danville St. Ry. & Light Co. to extend its line from Junction Ave. to Illinois St. H. J. Vance, Peoria, is Pur. Agt.

Joliet, Ill.—Plans are being considered by the Chicago & Joliet Electric Ry. Co. for the extension of its line to Theilers Park. J. R. Blackhall, Joliet, is Gen. Mgr.

Kansas City, Mo.—The Metropolitan St. Ry. Co. is making arrangements to start work on the reconstruction of its tracks on Walnut St. A. E. Harvey, Kansas City, is Ch. Engr.

Sedalia, Mo.—Plans are being prepared by the City Light & Traction Co. for the extension and improvement of its lines in Sedalia. Henry D. Frueauff, Sedalia, is Gen. Mgr.

Houston, Tex.—The Beaumont, Liberty & Houston Traction Co. plans to start work soon on the construction of its proposed electric railway from Houston to Richmond. Edward Kennedy is Pres. Noted Mar. 25.

San Antonio, Tex.—The San Antonio-Austin Interurban Ry. Co. has revived its plans for constructing an interurban electric railway from San Antonio to Austin, about 85 miles. The work of surveying the route and securing the right-of-way for the proposed road will be resumed soon, it is stated. Noted Aug. 21, 1913, and Aug. 13, 1914.

Sutherlin, Ore.—Plans for the construction of an electric railway to connect Sutherlin, and Umpqua, about 14 miles, are under consideration.

Brantford, Ont.—The City Council has approved plans of the Brantford Municipal Ry. Co. for the extension of its lines to form a loop at Eagle Pl. Noted Nov. 5.

Lethbridge, Alta.—The City Council is considering the extension of the Lethbridge Municipal Ry. to Hardieville. L. E. Goellincht, Lethbridge, is Ch. Engr.

New Westminister, B. C.—Preliminary arrangements are being made by the British Columbia Electric Ry. Co. to start work on the construction of an electric railway on Front St. E. Sterling, New Westminster, is Supt.

LIGHT, HEAT AND POWER

✚Waterbury, Conn.—The Board of Education has awarded the contract for heating, ventilating and mechanical equipment for the Clark School to the M. J. DALY & SONS CO., 553 Bank St., Waterbury, at $18,996. The contract for the plumbing was awarded to the BARLOW BROS. CO., 63 Grand St., at $4490. Noted Mar. 11.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 11 a.m., Apr. 5, by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., Borough of Manhattan, for heating and ventilating apparatus and temperature regulation in new Public School 55, St. Paul's Pl., between Park and Washington Ave., Borough of Bronx.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until noon, Apr. 2, by the Board of Trustees, Bellevue and Allied Hospitals, 415 East 26th St., for all lighting fixtures in Pavilions "I" and "K" of the new Bellevue Hospital. John W. Brannan, M.D., is Pres. Bd. of Trustees.

Clinton, N. J.—Bids will be received until 2 p.m., Apr. 9, by the Board of Managers of the State Reformatory for Women for the construction of an electric transmission line. Plans on file with the Commissioner of Charities, State House, Trenton.

Hoboken, N. J.—It is reported that the City Council contemplates the installation of a municipal electric-light plant to cost about $50,000. James H. Londrigan is City Clk.

Paterson, N. J.—David G. Smith, Comr. of the Bd. of Education, has recommended the installation of an electric-light and power plant in the High School having the capacity to furnish electrical service to the High School, School No. 23, the Court House and the Federal Building. The estimated cost is $4600.

Allentown, Penn.—It is reported that the Lehigh Valley Light & Power Co. will shortly extend its transmission lines to Schnecksville and Neffs, about 12 miles. A. H. S. Cantlin is Vice-Pres. and Mgr. of the company.

Philadelphia, Penn.—The Harrison Bros. Co., 3500 Grays Ferry Rd., Philadelphia, manufacturer of paints, white lead and chemicals, will build a one-story, 47x57-ft. power plant to cost about $15,000.

✚Baltimore, Md.—The Board of Awards has awarded the contract for the installation of a new turbine of 500-kw. capacity in the high-pressure pumping station on South St. to RICHARD MORTON, 820 Equitable Bldg. The new equipment is for the purpose of furnishing electric lights for the City Hall, the Court House and other municipal buildings. Noted Mar. 4.

Cary, N. C.—It is reported that the City Council has authorized the issue of not more than $20,000 in bonds for the purpose of installing a municipal electric-light plant.

Morganton, N. C.—According to press reports, plans have been completed for the construction of a dam and power house on the Catawba River to develop 6000 hp. and a plant on the Henry River to develop 4000 hp. The energy generated at these plants will be transmitted to Morganton, Drexel, Connellys Springs and Valdese. H. L. Millner is Engr.

✚Kentwood, La.—A contract has been awarded to the BROOKS-SCANLON CO. for lighting the town with electricity. Plans are being considered for the installation of a new plant.

Greenfield, Ind.—Bids will be received until Apr. 7 by the City Clerk for one engine or turbine and a directly connected 180-kw. alternating-current generator, exciter and switchboard for the municipal electric-light plant. E. C. Wolfe is Supt. of the plant.

Hartford, Mich.—It is reported that the Hartford Light & Power Co. has been organized to take over the plant and property of the Anderson Bros. The company contemplates installing a new generator and making other improvements this spring.

Lapeer, Mich.—The City Council will call an election to vote on the question of issuing $20,000 in bonds for the purpose of installing a municipal electric-light plant.

Watseka, Ill.—At the coming city election in April, the citizens will be asked to vote on the question of establishing a municipal electric-light plant.

Beloit, Wis.—The Beloit Water, Gas & Electric Co. has been authorized by the Wisconsin Commission to issue $100,000 in bonds, the proceeds of which will be used for extending and improving its system. R. G. Krumrey, Beloit, is Gen. Supt.

Green Bay, Wis.—It is reported that the Wisconsin Public Service Co. contemplates the construction of a hydro-electric plant at Johnson Falls above Green Bay during the coming year. The estimated cost is $300,000. C. A. Ewing, Green Bay, is Ch. Engr.

Waukesha, Wis.—It is reported that H. H. Hayford, Supt. of Water Wks., will ask the City Council for an appropriation of $15,000 for the purpose of installing an electric-light plant in connection with the water-works system.

Irwin, Iowa—It is reported that plans are almost completed for the construction of electric transmission lines in Irwin to cost about $6000. Bruce. Standeven & Boynton, 430 Bee Bldg., Omaha, Neb., is Engr.

Crookston, Minn.—The City Council is considering the establishment of a municipal electric-light plant. The 30-year franchise of the local company has expired, and the city may purchase the plant or renew the franchise for another 30 years.

Anthony, Kan.—The Anthony Ice & Salt Co. has applied for a franchise to install and operate an electric-light plant in Anthony. Alfred E. Dent is Mgr.

+Osawatomie, Kan.—The City Council has awarded contracts for additions to the municipal power plant as follows: Power House, pipe line and filter building, CONNOR CONSTRUCTION CO., Kansas City, Kan.; boilers, MERKLE-HINES MACHINERY CO.; pumps, HENRY R. WORTHINGTON; engine, HADLEY-HUDSON CO., for a McIntosh-Seymour engine; motors, WESTINGHOUSE ELECTRIC & MFG. CO. The pumps will be changed from steam- to motor-driven, and the oil engines will gradually be replaced by steam engines. Noted Mar. 4.

Pratt, Kan.—(Official)—Bids will be received until 1 p.m., Apr. 20, by M. P. Jones, City Clk., for the construction of an electric-light and power plant. The work includes building the power house, 160- and 240-hp. engines, two oil-burning boilers, condensers, alternators, regulator, 4-panel switchboard transformers, etc. E. T. Archer & Co., New England Bldg., Kansas City, Mo., is Engr.

Broken Bow, Neb.—An election will be held Apr. 9 to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the installation of a municipal electric-light plant.

Ceresco, Neb.—A special election will be held Apr. 6 to vote on the question of issuing $5000 in bonds to be used for the installation of a municipal electric-light plant.

Dundee, Neb.—(Official)—A special election will be held Apr. 17 at which the citizens will vote on the question of issuing $35,000 in bonds to be used for installing a system of street lights. The King Rohrbough Co., 316 McCague Bldg., Omaha, is Engr.

Dubois, Wyo.—It is reported that the Lander Electric Light & Power Co., Lander, contemplates the installation of an electric generating station and distribution system in the town of Dubois. E. D. Edwards, Lander, is Secy. and Treas. of the Lander Electric Light & Power Co.

+Deepwater, Mo.—The city has awarded the contract for the construction of an electric-light plant to the INDUSTRIAL IRON WORKS, Clinton, Mo., at $7092, and to the BESSEMER GAS ENGINE CO., Grove City, Penn., at $2430, for furnishing a 50-hp. oil engine. J. P. Davis, Windsor, Mo., is Consult. Engr. Bids were received Mar. 6. Noted Mar. 4.

Newport, Ark.—It is reported that the Arkansas Power Co., Arkadelphia, has recently purchased the property of the Coöperative Electric Light Co. Improvements, costing from $20,000 to $25,000, are contemplated. W. C. Maguire, Arkadelphia, is Mgr. and Supt. of the Arkansas Power Co.

Stuttgart, Ark.—See item under "Water Supply-Irrigation."

Montague, Tex.—A company is being organized for the purpose of establishing an electric-light plant in Montague. W. A. Parker, Dallas, is interested.

Palestine, Tex.—It is reported that the Texas Power & Light Co. has had plans prepared for a new electric-light and power plant at this place to cost about $83,000. C. A. Martin, Palestine, is local Mgr.

Victoria, Tex.—It is reported that the City Council plans to install a municipal electric-light plant at a cost of about $40,000.

Crested Butte, Colo.—At the election to be held Apr. 6 the question of issuing $15,000 in bonds for the purchase and improvement of the local electric-light plant will be submitted to the voters. The town is also considering taking over the water-works system.

Lordsburg, N. M.—The Lordsburg Water, Ice & Electric Co. is considering the installation of new equipment in the electric-light plant. It is also developing additional water supply for the town. R. E. Cameron is Mgr.

Battle Mountain, Nev.—It is reported that a power plant will be established at this place by H. R. Lemaine, H. C Christensen and St. Clair Moore.

Ellensburg, Wash.—Bids will be received until Apr. 5 by Reuben Crimp, City Clk., for the construction of an auxiliary to the municipal power plant. The work includes the construction of the building, all concrete work, forebays, spillways, excavation, tailrace and basin, a 100-ft. concrete chimney, and the installation of a 1000-kw. turbine, 325-hp. boiler, switchboard, barometric condenser and feed water pump. The estimated total cost of the work is from $50,000 to $60,000 Noted Feb. 25.

Seattle, Wash.—The City Utilities Committee of the City Council has recommended the appropriation of $25,000 for the installation of an additional boiler in the Lake Union auxiliary steam plant of the municipal power plant to increase the output to a maximum of 10,000 kw.

Martinez, Calif.—The Contra Costa Gas Co. plans to install a pressure station and distributing system at Martinez to cost about $26,400. S. Waldo Coleman is Pres. and Gen. Mgr. of the company.

San Francisco, Calif.—The Trustees of Leland Stanford University have authorized the construction of an addition to the power house at Webster St. and Clay Ave. The estimated cost is $20,000.

Toronto, Ont.—It is reported that the Toronto Electric Commission will soon begin the construction of a new transformer house on Sterling Rd.

BRIDGES

Enosburg Falls, Vt.—Press reports state that the Selectmen have decided to build a concrete bridge, costing about $9000, to replace the present wooden structure across the Missisquoi River in this village.

New Haven, Conn.—Press reports state that the Board of Aldermen has authorized an issue of bonds for the construction of a $250,000 bridge over the Quinnipiac River in the City of New Haven. The bridge will be 650 ft. long and 66 ft. wide. Construction work will be begun some time in May. F. L. Ford is City Engr.

South Manchester, Conn.—(Official)—We are advised by J. Frank Bowen, Supt. of Streets and Bridges of the Town of Manchester, that no official orders have as yet been issued for the construction of a concrete bridge on Bissell St. Noted Mar. 18.

Elizabeth, N. J.—It is reported that the Board of Chosen Freeholders of Union County will have plans prepared by the Strauss Bascule Bridge Co., Chicago, Ill., for a trunnion type lift bridge over the Elizabeth River at Baltic St., Elizabeth. Jacob L. Bauer is County Engr. Noted May 14, 1914.

Jersey City, N. J.—Bids will be received until 3 p.m., Apr. 8, by the Board of Chosen Freeholders of Hudson County for repairing the pavement and painting the 14th St. Viaduct.

+Trenton, N. J.—(Official)—The Board of Chosen Freeholders of Mercer County has awarded the contract for the construction of a reinforced-concrete bridge over Sanhican Creek at Lee Ave. to WILLIAM F. McGOVERN, Trenton, at $9916. Other bidders were: S. J. Brown, Trenton, $9980; Whitaker & Diehl, Harrisburg, Penn., $10,156; Seeds & Durham, Philadelphia, $10,500; Ginder Construction Co., $10,743. Bids were opened Mar. 23. Noted July 2, Sept. 17, Dec. 31, 1914; Mar. 11, 1915.

Stuart, Va.—(Official)—Bids will be received until noon, Apr. 5, by the Clerk of the Circuit Court of Patrick County for the construction of a 100-ft. steel bridge across the Mayo River. G. P. Coleman, Richmond, is State Highway Comr.

Ranger, W. Va.—The Lincoln County Court, Hamlin, is having plans prepared by Oliver & Maupin, Huntington, W. Va., for a new steel bridge over the Guyan River at Ranger. The engineers will also supervise the construction.

Smithfield, W. Va.—Bids will be received until Apr. 6 by the Wetzel County Court, New Martinsville, for the construction of a steel or concrete bridge with concrete floor across Fallen Timber Run, about one mile from Smithfield. S. Myers is Clk. of County Court.

Goshen, Ala.—Bids will be received until Apr. 21 by the Board of Commissioners of Pike County, Troy, for the construction of a reinforced-concrete bridge over the Conecuh River at Smiley's Crossing near Goshen. W. S. Keller, Montgomery, is State Highway Engr.

Tupelo, Miss.—Bids will be received until Apr. 5 by the Commissioners of Lee County for one car steel I-beams and channels, and for furnishing and erecting a 60-ft. steel bridge. L. G. Smith, Tupelo, is Engr.

Nashville, Tenn.—It is reported that Davidson County will issue $250,000 in bonds to be used for the construction of a bridge over the Cumberland River.

Cleveland, Ohio—(Official)—Bids will be received until 10 a.m., Apr. 17, by the Board of Commissioners of Cuyahoga County for the construction of a reinforced-concrete beam bridge, Report No. 3353. E. G. Krause is Clk. of the Bd.

Hamilton, Ohio—Bids will be received until Apr. 17 by the Board of Commissioners of Butler County for the construction of a steel or reinforced-concrete bridge over the Miami River at Woodsdale. The estimated cost is $85,000. Fred M. Hammerle is County Surv. Noted Feb. 25 and Mar. 11.

+Sciotoville, Ohio—It is reported that the Chesapeake & Ohio Ry. has awarded all contracts for the construction of its bridge over the Ohio River from Sciotoville and Portsmouth, Ohio, to South Portsmouth, Ky. The contracts for the substructure and superstructure were awarded to the DRAVO CONTRACTING CO., Pittsburgh, and the McCLINTIC-MARSHALL CO., Pittsburgh, respectively. The structure will have two spans of 775 ft. each and approaches of 1900 ft. The estimated cost is $1,500,000. Noted Jan. 29, July 23 and Nov. 19, 1914.

Boonville, Ind.—(Official)—Bids will be received until 2 p.m., Apr. 7, by the Board of Commissioners of Warrick County for the construction of three bridges. The estimated total cost is $8000. Gaines H. Bass is County Audr. Noted Mar. 18.

Converse, Ind.—The Board of Commissioners of Miami County, Peru, will soon advertise for bids for the construction of a bridge near Converse. The estimated cost is $7000. Alternate bids will be received for either a steel or reinforced-concrete structure. F. J. McElheny, Peru, is County Audr.

Dayton, Ind.—The County Council of Tippecanoe County, La Fayette, has made an appropriation of $4000 for the construction of a steel or reinforced-concrete bridge at Sycamore Crossing near Dayton. Plans are not yet completed. G. W. Baxter is County Audr.

Evansville, Ind.—Bids will be received until 10 a.m., Apr. 9, by the Board of Commissioners of Vanderburg County for the construction of a number of reinforced-concrete and steel bridges with concrete abutments. C. P. Beard is County Audr.

Hammond, Ind.—Bids will be received until 10 a.m., Apr. 5, by the Board of Public Works for the construction of a concrete bridge, including substructure and superstructure, over the lagoon in Harrison Park. Peter J. Lyons is City Engr. Jacob Schroeter is a member of the Bd. of Pub. Wks.

+Indianapolis, Ind.—(Official)—The Board of Commissioners of Marion County has awarded the contract for the construction of a bridge over Little Eagle Creek on the Crawfordsville Rd. in Wayne Township, to the CENTRAL STATES BRIDGE CO., Indianapolis, at $5395. Noted Mar. 18.

Benton Harbor, Mich.—Bids will be received until Apr. 7 by B. C. Spaulding, City Clk., for the construction of a reinforced-concrete bridge at Crystal Springs Cemetery.

Jackson, Mich.—(Official)—Bids will be received until Apr. 6 by the City Commissioners for the construction of a bridge over the Grand River at Mechanic St. A. W. D. Hall is City Engr. Noted Mar. 4.

Bloomington, Ill.—(Official)—Bids will be received until 1 p.m., Apr. 3, by R. O. Edwards, Supt. of Highways of McLean County, for the construction of a steel bridge on concrete abutments between Rutledge Township, DeWitt County, and Empire Township, McLean County. The estimated cost is $4650.

+Pontiac, Ill.—(Official)—The Highway Commission of Livingston County has awarded the contract for the Young Bridge in Pontiac Township to JOSEPH KLEIN at $7474. There were 16 bids in all, ranging from that of the successful contractor to one of $10,490. Noted Jan. 21.

Milwaukee, Wis.—(Official)—We are advised by J. C. Pinney, Jr., Supt. of Bridges and Pub. Bldgs., that the construction of the State-Martin St. Bridge has been postponed for the present by the City Council. Nothing further will be done for two or three months. Noted Apr. 9, 1914; Jan. 7 and Feb. 11.

Clinton, Iowa—Bids will be received until Apr. 7 by the Board of Supervisors of Clinton County for the construction of about 20 bridges in the county. The estimated cost is $15,000.

Manchester, Iowa—The Board of Supervisors of Delaware County has passed a resolution of necessity for the construction of 11 bridges and culverts in the county. C. H. Bunker is County Audr.

Oskaloosa, Iowa—The Board of Supervisors of Mahaska County has passed a resolution of necessity for the construction of 41 new concrete bridges during the coming spring and summer. The estimated total cost is $34,000.

Waverly, Iowa—It is reported that the Board of Supervisors of Bremer County will advertise about Apr. 15 for bids for the construction of several bridges. C. A. Cool is County Engr. W. H. Pockle is Audr.

Duluth, Minn.—(Official)—Bids will be received until 9:30 a.m., Apr. 3, by O. Halden, Audr. of St. Louis County, for a steel bridge over Sand Creek on the Arkkola Rd.

Jackson, Minn.—Bids will be received until 1 p.m., Apr. 6, by P. D. McKellar, Audr. of Jackson County, for the construction of State Bridges Nos. 1629, 1702, 1706 and 1144; also for one reinforced-concrete box culvert.

+Worthington, Minn.—(Official)—The Board of Commissioners of Nobles County has awarded the contract for the construction of five state bridges to THOMAS & STEHLY, Faribault, at $6227. G. Swanberg is County Audr. Noted Mar. 18.

+Concordia, Kan.—(Official)—The Board of Commissioners of Cloud County has awarded the contract for the construction of five reinforced-concrete bridges to the WESTERN BRIDGE CO., Harrisonville, Mo., at $9677. Other bidders were: Canton Bridge Co., Kansas City, Mo., $11,000; Western Bridge & Construction Co., Omaha, Neb., $16,740; Leavenworth Bridge Co., Leavenworth, $12,500; Heaney Construction Co., Enid, Okla., $11,900; Scott Bros., Concordia, $11,367. George C. Guilbert is County Clk. Noted Mar. 18.

Eldorado, Kan.—Bids will be received until noon, Apr. 8, by the Board of Commissioners of Butler County for the construction and repair of county bridges. O. Holford is County Clk.

+Newton, Kan.—(Official)—The Board of Commissioners of Harvey County has awarded the contract for the construction of two reinforced-concrete bridges to the HEANEY CONSTRUCTION CO., Enid, Okla., at $5100. Five other bids were received. C. A. Young is County Clk. Noted Mar. 18.

Topeka, Kan.—The State Senate has passed a bill permitting the City of Topeka to spend $10,000 for bridge construction without the formality of submitting the issue to a vote of the citizens. A. R. Young is City Engr.

Fullerton, Neb.—Bids will be received until noon, Apr. 19, by F. M. Jones, Clk. of Nance County, for furnishing bridge material such as oak plank, fir stringers, cypress piling, etc.

Red Cloud, Neb.—(Official)—All bids received Mar. 23 for bridge and culvert construction, and for furnishing steel I-beams and reinforcing rods were rejected by the Board of Commissioners of Webster County. J. J. Garber is County Clk. Noted Mar. 4.

Troy, Mont.—Bids will be received until Apr. 5 by Louis G. Klency, Clk. of Lincoln County, Libby, for the construction of a bridge over Lake Creek near Troy.

St. Louis, Mo.—(Official)—Bids will be received until noon, Apr. 9, by the Board of Public Service for about 15,000 lin.ft. reinforced-concrete piling for the Seventh Section of the Municipal Bridge. E. R. Kinsey is Pres., William T. Findly is Secy. of the Bd.

Chandler, Okla.—Bids will be received until 2 p.m., Apr. 5, by the Board of Commissioners of Lincoln County for the construction of three steel bridges across the main channel of the Deep Fork Drainage Ditch. J. C. Pringey is County Clk.

Tulsa, Okla.—An election will be held Apr. 12 at which the citizens of Tulsa County will vote on the question of issuing $200,000 in bonds, the proceeds of which will be used to build a bridge over the Arkansas River.

Salt Lake City, Utah—The State Senate has passed bills making appropriations for the following bridge construction: A bridge over the Green River on the Midland Trail, $7500; bridge over the Du Chesne River near Utahn, Wasatch County, $10,000; bridge over the Price River in Emery County, $6000.

Nogales, Ariz.—The State Legislature has appropriated $12,500 toward the construction of a bridge across the Santa Cruz River in Santa Cruz County, providing the county will appropriate a similar amount. It is expected the county will at once arrange to pay its share of the cost.

+Bellingham, Wash.—The Commissioners of Whatcom County have awarded the contract for the construction of a 380-ft. steel bridge over the Nooksack River on the Guide Meridian Rd. to the WEYMOUTH CONSTRUCTION CO., Seattle, at $31,318. Other bidders were: Graff Construction Co., Seattle, $32,735; Central States Bridge Co., Seattle, $31,956; Illinois Steel Bridge Co., Seattle and Spokane, $34,949. C. M. Adams is County Engr. Noted Mar. 4.

Hoquiam, Wash.—It is reported that the City Council has decided to construct a drawbridge at Simpson Ave., estimated to cost $45,000. Charles E. Fowler, Central Bldg., Seattle, is Engr. John H. Neef is Comr. of Pub. Wks.

Marysville, Wash.—Bids will be received until Apr. 12 by the Board of Commissioners of Snohomish County, Everett, for the construction of a concrete culvert and fill or a reinforced-concrete viaduct on the Pacific Highway near Marysville. M. Weatherby is County Audr. Hans Mumm, Jr., is County Engr.

Olympia, Wash.—It is reported that plans for rebuilding the West Fourth St. Bridge, which recently collapsed, will be prepared at once by the City Engineer. The new structure will be of steel, estimated to cost $20,000.

Port Orchard, Wash.—Bids will be received until Apr. 6 by R. E. Gordon, Audr. of Kitsap County, for the construction of two concrete bridges, one at South Colby and the other at Silverdale. S. H. Berry is County Engr.

Shelton, Wash.—Arthur L. Ward, County Engr. of Mason County, has prepared plans for two new bridges on the Pump Creek Rd. It is reported that bids for their construction will be asked some time in April.

Hanford, Calif.—Bids will be received until Apr. 7 by the Board of Supervisors of Kings County for the construction of a reinforced-concrete bridge over Cross Creek near Hanford. B. E. Duffield is County Surv.

Maxwell, Calif.—Bids will be received until Apr. 6 by the Board of Supervisors of Colusa County, Colusa, for the construction of a concrete bridge at Maxwell. T. D. Cain, Colusa, is County Clk.

Sierra Madre, Calif.—The City Trustees have instructed W. F. Bixby, City Engr., to prepare plans for a reinforced-concrete bridge over the wash on Mariposa Ave., west of Lima St.

Lindsay, Ont.—Plans have been prepared by the Department of Public Works, Ottawa, for the construction of a swing bridge at Lindsay. Work will probably begin some time during the summer.

Toronto, Ont.—(Official)—Bids will be received until noon, Apr. 10, by A. L. Hertzberg, Div. Engr., Ontario Division of the Canadian Pacific Ry., for the construction of four concrete piers and two concrete abutments at Bridge 107.2, Muskoka Subdivision over Shaw's Creek, about 7½ miles south of Bala.

+Winnipeg, Man.—The Board of Control has awarded the contract for the Lee River Bridge to the DOMINION BRIDGE CO., Montreal, Que., at 4⅝c. per lb. for the steel. The total cost of the bridge will be about $19,383. E. V. Caton is Ch. Engr. Noted Dec. 10 and Feb. 4.

Grand Forks, B. C.—It is reported that City Council will receive bids about Sept. 1 for the construction of a bridge over the Kettle River. The estimated cost is $6000. J. A. Hutton is City Clk.

WATER SUPPLY—IRRIGATION

Pittsfield, Maine—The Water Commissioners have been authorized to complete the water system and install meters. The estimated cost is $5000. T. E. Getchell is Clk.

Boston, Mass.—Bids will be received until Apr. 9 by the Supply Department for 2600 reinforced-concrete gate and meter boxes. D. Frank Doherty is Supt.

+Boston, Mass.—The contract has been awarded to JOHN F. LYNCH at $16,455 for trench work for the water department for 1915. Other bidders were: Hugh McNulty, $17,428; Anthony Baruffaldi, $17,635, and Thomas Burke, $17,908. L. K. Rourke is Comr. of Pub. Wks.

★Barker, N. Y.—(Official)—Bids will be received until noon, Apr. 14, by the Board of Trustees for laying 4½ miles of c.-i. water mains, constructing a stand pipe, sand filter and pure water reservoir, pump house and pumping apparatus. Noted Jan. 7 and Feb. 11.

★Binghamton, N. Y.—(Official)—Bids will be received until 10 a.m., May 15, by the Board of Water Commissioners for installing one horizontal cross-compound high-duty crank and flywheel pumping engine of 10,000,000 gal. daily capacity. John D. Davidson is Secy.

Brocton, N. Y.—The citizens, at a recent election, voted in favor of issuing bonds for $20,000, the proceeds of which will be used for the extension of the water system.

Elmira, N. Y.—The citizens voted in favor of purchasing the system of the Elmira Water, Light, & R.R. Co. Cost, $1,500,000.

✚**Jamestown, N. Y.**—The contract has been awarded by the Board of Water and Light Commissioners to the UNITED STATES CAST IRON PIPE CO., Buffalo, at $21.10 per ton for c.-i. pipe and $0.27 per lb. for specials.

New York, N. Y.—(Official)—Bids will be received by the Board of Water Supply, Municipal Bldg., until 11 a.m., Apr. 13, for Contract No. 152 for paving five miles of highway with vitrified brick blocks and macadam and for constructing about eight miles of guard walls at the Ashokan reservoir, in the towns of Olive, Marbletown and Hurley. Charles Strauss is Pres.

✚**New York, N. Y.**—(Official)—Bids were received Mar. 23 for constructing six concrete, stone and brick buildings at and near the Kensico reservoir under Contract No. 123 as follows: F. W. BURNHAM, 30 East 42d St., New York, at $149,385 (awarded contract); William H. Egan, $166,425; A. L. Guidone & Co., $170,980; Conners Bros. Co., $162,825; P. J. Brennen & Sons, $217,564; W. P. Seaver, Inc., $172,978; Emerson Building Co., $151,057; Edwin Outwater, $165,570; Charles Meads & Co., $161,975; Simon Russek, Inc., $170,729; Madden & Co., $169,055; J. Kressi, $172,386; Marble Arch Co., $203,250; T. A. Clark Co., $179,703; L. Wessler, $177,949; James McArthur Co., $183,044; Kelly & Kelly, Inc., $178,940 and L. T. Freze, $189,430. Noted Mar. 4.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., Apr. 7, by William Williams, Comr. of Water Supply, Gas & Electricity, for constructing a high pressure headquarters building at 226 West Broadway.

Oakfield, N. Y.—Bonds for $35,000 have been voted by the citizens. The proceeds will be used for the construction of a water system.

✚**Syracuse, N. Y.**—(Official)—The contract has been awarded to the DONALDSON IRON CO., Emaus, Penn., at $6000, for c.-i. pipe. R. D. Roney is Secy. Bids were opened Mar. 22. Noted Mar. 18.

Watervliet, N. Y.—The water bill providing for the issuance of $625,000 in bonds for the construction of a water-supply system has been adopted by the Board of Aldermen. Noted Mar. 11 and 18.

✚★**Atlantic City, N. J.**—The contract has been awarded to the KERR TURBINE CO., Real Estate Bldg., Philadelphia, Penn., at $14,317, for an 18,000,000-gal. turbo-centrifugal pump. Noted Mar. 4 and 25.

✚**Atlantic City, N. J.**—The contract for a slack lime excavator has been awarded by the Water Department to the INSLEY MFG. CO., Bulletin Bldg., Philadelphia, Penn., at $20,530.

Bloomfield, N. J.—Bids will be received until 8 p.m., Apr. 5, by Raymond F. Davis, Town Clk., for 80 tons of 8-in., 66 tons of 6-in. and 6 tons of 4-in. pipe and 2½ tons of specials.

Clinton, N. J.—Bids will be received until 2 p.m., Apr. 9, by the Board of Managers State Reformatory for making extensions to the water system. Noted Feb. 25.

Jersey City, N. J.—Frank Hague, Dir. of Pub. Safety, has been authorized by the Board of City Commissioners to have plans prepared for the installation of a high-pressure water system for fire service in the manufacturing district.

West Orange, N. J.—The West Orange Water Co. has submitted a proposition to the Council to increase the water supply. The construction of a 14-in. pipe line along the mountain ridge to empty into a concrete reservoir with a capacity of 3,000,000 gal. is contemplated; also the installation of an auxiliary pumping plant and a 20-in. pipe in Northfield Rd. C. P. Bassett is Pres. of the company. Noted Aug. 20 and Dec. 31.

Clayton, Del.—The town plans to build water and sewer systems, estimated to cost $20,000.

✚**Baltimore, Md.**—The Board of Awards, according to press reports, has awarded the contract to RICHARD MORTON, at about $18,000, for installing a 500-kw. turbo generator.

East New Market, Md.—(Official)—Bids will be received until Apr. 15 by the Board of Town Commissioners for constructing a water system. Kastenhuber & Anderson, Easton, is Engr. F. E. Loomis is Secy.

Bridgeport, W. Va.—Bids will soon be received for the construction of water and sewer systems and a pipe line. The estimated cost is $40,000. Hornor Bros., Hornor Bldg., Clarksburg, is Engr. Noted Feb. 4.

White Sulphur Springs, W. Va.—Bonds for $9500 have been voted. The proceeds will be used for construction of water and sewer systems. W. A. Martin is Mayor.

★**Durham, N. C.**—(Official)—Bids will be received until 3 p.m., Apr. 21, by W. J. Brogden, Mayor, and the Board of Aldermen for pumping-station equipment. The equipment consists of crank and flywheel pumping engines, turbine-driven centrifugal pumps, feed pumps, open feed-water heaters, 5-kw. and 7½-kw. D.C. electric-lighting units and Manning boilers. Gilbert C. White, Charlotte, is Engr. Noted May 7, June 4, 1914, and Jan. 21, 1915.

★**Durham, N. C.**—(Official)—Bids will be received until 3 p.m., Apr. 21, by W. J. Brogden, Mayor, and the Board of Aldermen for making improvements to the water system. Noted May 7, June 4, 1914, and Jan. 21.

Estill, S. C.—The J. B. McCrary Co., Atlanta, Ga., is preparing plans for the construction of a water system and electric-light plant. The estimated cost is $25,000.

Manning, S. C.—(Official)—Bids will be received until Apr. 13 by the Commissioner of Public Works for constructing water and sewer systems. The estimated cost is $40,000. The Shand Engineering Co., Columbia, is Engr. Noted Mar. 18.

Decatur, Ga.—Bonds for $7000 have been voted, the proceeds of which will be used for the improvement of the water system. F. T. Hopkins is Mayor. Noted Feb. 25.

Hawkinsville, Ga.—Bonds for $30,000 have been sold, the proceeds of which will be used for the extension of the water and sewer systems. Noted Feb. 4 and Mar. 4.

Key West, Fla.—About $15,000 will be spent for laying new water mains to replace the old ones. J. R. Valdez is Chn. Water-Works Com.

Vivian, La.—Bids will be received until Apr. 16 by J. D. Houston, City Clk., for constructing a water system. Estimated cost, $35,000. Edward W. Gantt Co., Dallas, Tex., is Engr. Noted Dec. 10 and Mar. 11.

Paducah, Ky.—Plans have been prepared for laying water mains in various streets for the Paducah Water Co. The estimated cost is $14,000.

✚**Akron, Ohio**—Contracts for pipe and specials have been awarded by the Board of Control as follows: RENSSELAER VALVE CO., Troy, N. Y., for fire hydrants at $58,089; UNITED STATES CAST IRON PIPE & FOUNDRY CO., Chicago, Ill., for pipe at $60,268, and to BOWLER FOUNDRY CO., Cleveland, for specials at $3080. Noted Mar. 4.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Apr. 8, by Philip Fosdick, Dir. of Pub. Ser., for laying water mains.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Apr. 8, by Philip Fosdick, Dir. of Pub. Ser., for constructing a horizontal turbine water wheel for the filtration plant at California, Ohio.

Cleveland, Ohio—Bids will be received until noon, Apr. 8, by A. R. Callow, Comr. Pur. and Supplies, for lead pipe for the water department.

Cleveland Heights, Ohio—(Warrensville post office)—Bids will be received until noon, Apr. 19, by H. H. Canfield, Village Clk., 803 Marshall Bldg., Cleveland, for laying water mains in various streets.

South Bend, Ind.—An ordinance has been passed by the City Council authorizing the issuance of $50,000 in bonds, the proceeds of which will be used for extension of the water system. J. W. Foyne is Supt. of Water Wks.

✚**Grand Rapids, Mich.**—The contract has been awarded to the LYNCHBURG FOUNDRY CO., Lynchburg, Va., at $23.40 per ton, for 600 tons of water pipe.

Jackson, Mich.—(Official)—Bids will be received until Apr. 6 by the City Commissioners for water pipe, hydrants, valves, cement and street castings. A. W. D. Hall is City Engr.

Saginaw, Mich.—At a recent election the citizens defeated the bond issue for $750,000, the proceeds of which was to have been used for the installation of a filtration plant and for making extensions to the water system. Noted Mar. 11.

✚**Berwyn, Ill.**—The contract has been awarded by the Board of Local Improvements to the CHARLES M. PORTER CO., 111 West Washington St., Chicago, for c.-i. water mains in 64th Ave. and other streets. Bids were opened Mar. 16. Noted Mar. 11.

Christopher, Ill.—(Official)—A water system, costing $37,500; a sewer system, costing $62,000, and sidewalks, costing $35,000, will be constructed soon. L. T. Putnam is Engr.-in-Charge. Noted Mar. 18.

Cicero, Ill.—Bids will be received until 8 p.m., Apr. 12, by Charles Stoffel, Town Clk., for laying water mains in West 12th and 15th St., and in South 62d Ave.

Columbia, Ill.—The Fuller-Coult Co., Chemical Bldg., St. Louis, Mo., is preparing plans for the construction of a water system.

Elmhurst, Ill.—(Official)—Bids will be received until Apr. 19 by the city for constructing an 18-in. artesian well. H. L. Emerson, Chamber of Commerce Bldg., Chicago, is Engr.

Monticello, Ill.—An election will be held to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the improvement of the water system.

★**Peoria Heights, Ill.**—(Official)—Bids will be received until 8 p.m., Apr. 19, by the Board of Local Improvements for constructing a water system. E. J. Brayton is City Clk.

Bloomington, Wis.—Bids will be received about May 1 for constructing a water system. The estimated cost is $12,000. L. P. Wolff, St. Paul, is Consult. Engr. Noted Mar. 4.

★**Milwaukee, Wis.**—(Official)—Bids will be received until 10:30 a.m., Apr. 19, by Fred. G. Simmons, Comr. of Pub. Wks., for constructing the shore tunnel of the Linwood Ave. intake Noted Mar. 25.

Oconomowoc, Wis.—Bids will be received until 1 p.m., Apr. 7, by the Board of Public Works for laying water mains. J. Alex Stemper is City Engr.

✚**Reedsburg, Wis.**—(Official)—The contract has been awarded to the AMERICAN CAST IRON PIPE CO., Minneapolis, Minn., at $25.15 per ton, f.o.b. Reedsburg, for c.-i. pipe. William H. Dierken is City Clk. Bids were opened Mar. 22. Noted Mar. 18.

Colo, Iowa—The expenditure of $16,000 is contemplated by the citizens for the construction of a water system. Lawrence W. Cox, Youngerman Blk., Des Moines, is Engr.

✚**Crawfordsville, Iowa**—(Official)—The contract for constructing a water system has been awarded to the DES MOINES BRIDGE & IRON CO., Des Moines. R. S. Dix is City Clk. Noted Dec. 31 and Mar. 18.

Ft. Madison, Iowa—The citizens will either purchase the present water system or construct a new one.

Newton, Iowa—Bids will be received until Apr. 5 by O. B. Kipp, City Clk., for making improvements to the water system.

Stacyville, Iowa—A water system, estimated to cost $11,000, will be installed.

✚**Yale, Iowa**—The contract for constructing a water system has been awarded to the C. W. ROLAND CO., Des Moines, at $9198. Noted Mar. 11.

Detroit, Minn.—Plans have been prepared by L. P. Wolff, Consult. Engr., St. Paul, for making extensions to the water system. The estimated cost is $29,395. E. J. Bestick is City Clk.

+Kinney, Minn.—The contract for constructing a 100,000-gal. concrete reservoir has been awarded to the BUTLER & COONS CONTRACTING CO., Hibbing, at $4500. Noted Feb. 4.

+Osawatomie, Kan.—The contract has been awarded to the CONNOR CONSTRUCTION CO., 4006 Montgall Ave., Kansas City, at $10,065, for constructing a water system and filtration plant. Noted Sept. 10 and Dec. 3.

Broken Bow, Neb.—An election will be held to vote on the question of issuing bonds for $6500, the proceeds of which will be used for the improvement of the water system. Charles F. Sturtevant, Holdrege, is Engr. Noted Jan. 14.

Nelson, Neb.—Bids for constructing about 10 miles of 8-in. pipe line have been rejected by the City Council.

Belfield, N. D.—At an election held recently the citizens voted in favor of issuing bonds for $20,000, the proceeds of which will be used for the construction of a water system. Noted Mar. 18.

Laramie, Wyo.—Bids will be received until Apr. 13 by Z. E. Sezison, City Engr., for making extensions to the water system.

+Billings, Mont.—(Official)—Contracts have been awarded for making improvements to the water system as follows: to the GORDON & TAYLOR CONSTRUCTION CO., Denver, Colo., at $34,709, for laying six miles of c.-i. water mains; HANLON & OKES, Sioux City, Iowa, at $71,790, for constructing settling basins, filter basins and brick filter house; PITTSBURGH FILTER MFG. CO., Pittsburgh, Penn., at $35,175, for installing six 1,000,000-gal. mechanical filter units; and to HANLON & OKES, Sioux City, Iowa, at $1950, for installing one turbine pump and electric motor. Burns & McDonnell, Kansas City, Mo., is Engr. Noted Jan. 14, Feb. 11 and Mar. 11.

Judith Gap, Mont.—The city plans to spend $10,000 for the construction of a municipal water system.

Chillicothe, Mo.—(Official)—Bids will be received until 8 p.m., Apr. 16, by P. J. Dixon, Secy. Bd. of Pub. Wks., for constructing a filtration plant for the water department. Harper & Stiles, Grand Ave. Temple, Kansas City, Mo., is Engr. Noted Mar. 11.

Kennett, Mo.—Bonds for $7000 have been voted. The proceeds will be used for the extension of the water system. Clyde Oakes is Mayor. Noted Feb. 25.

Bentonville, Ark.—The City Council has retained Albert C. Moore, Engr., Joplin, Mo., to estimate the cost of making extensions and repairs to the water system and electric-light plant and to test the efficiency of the present systems. Richard Rice is Mayor.

Booneville, Ark.—Winters & Dove, Ft. Smith, has been retained by the city to make surveys and estimate the cost of the construction of a water system.

+Ft. Smith, Ark.—According to press reports, the contract has been awarded to the WALLACE CONSTRUCTION CO., at about $30,000, for constructing a water system in District No. 2. Noted Mar. 25.

Stuttgart, Ark.—Plans are being prepared by F. L. Wilcox, Syndicate Trust Bldg., St. Louis, Mo., for the construction of a water system and electric-light plant. The estimated cost is $100,000.

Livingston, Tex.—Bids will be received until Apr. 7 by A. T. Feagin, Mayor, for water meters, fire hose and reels. Noted Oct. 15.

San Antonio, Tex.—Bids will be received until 4 p.m., Apr. 19, by Fred Fries, City Clk., for constructnig a 60-in. steel flume across the San Antonio River.

Crested Butte, Colo.—An election will be held Apr. 6 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for the construction of a water system.

Gooding, Idaho—The Hagerman Valley Water Users' Association, Gooding, will overhaul its water system this spring. A new siphon across Billingsley Creek and a 20-in. stave pipe line 800 ft. long will be constructed. George Hulme is Secy.

Samaria, Idaho—An election will be held Apr. 27 to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for the construction of a municipal water system.

+Salt Lake City, Utah—The contract has been awarded, according to press reports, to PARROTT BROS., Baker City, Ore., by the City Commission for laying water mains during 1915. Bids opened Mar. 16. Noted Dec. 31 and Mar. 11.

Seattle, Wash.—The City Council has passed an ordinance authorizing the construction of a water tunnel under the government canal at Third Ave., W.

Eugene, Ore.—Bids will be received until Apr. 3 by C. W. Geller, Secy. Water Dept., for constructing a reinforced-concrete reservoir with a capacity of 2,500,000 gal. F. W. Dietrich is Engr. Noted Oct. 8, Feb. 11 and Mar. 4.

Fairview, Ore.—The City Council has postponed for one year the issuance of bonds for constructing a municipal water system. Noted Mar. 18.

+Los Angeles, Calif.—Contracts have been awarded for water meters to the NEPTUNE METER CO., GAMON METER CO., THOMPSON METER CO., WATCHDOG METER CO., and the HERSEY METER CO. Total cost, $60,000.

★Sacramento, Calif.—(Official)—Bids will be received until 10:30 a.m., Apr. 20, by M. J. Desmond, City Clk., for laying c.-i. and riveted steel water mains in various streets.

+Port Hope, Ont.—Contracts have been awarded by R. Gray, Secy., Water Comrs., for making improvements to the water system as follows: CANADIAN FAIRBANKS-MORSE CO., for pumps and engines; FRANCIS HANKIN & CO., Toronto, for venturi meters; THOMAS GARNETTE & SONS, Port Hope, for filter; NATIONAL IRON WORKS CO., Toronto, for c.-i. pipe; and DRUMMOND, McCALL & CO., Montreal, Que., for valves. Bids were opened Mar. 15. Noted Mar. 11.

Trenton, Ont.—The Council has authorized the installation of water mains and hydrants, according to press reports. The estimated cost is $35,000. O. W. Fortune is Mayor.

Humboldt, Sask.—Chipman & Power, Toronto, Ont., is preparing plans for the construction of a distributing system, estimated to cost $110,000. W. H. Stiles is Town Clk.

+Saanich, B. C.—The contract has been awarded to BALFOUR, GUTHRIE & CO., at $139,841 for pipe and at $9063 for specials for the water system. Bids opened Mar. 12. Noted Feb. 11.

SEWERS

Derry, N. H.—Dudley & Sawyer, Manchester, is preparing plans for the construction of a sewer system and sewage disposal plant for Derry and West Derry. Arthur Greenough is Chn. Sewer Com.

Boston, Mass.—Bids will be received until Apr. 5 by the Department of Public Works for constructing sewers and drains in Anawan and Nikisch Ave., West Roxbury, and in Mackin and Richards St., Brighton District. L. K. Rourke is Comr.

Boston, Mass.—Bids will be received until Apr. 2 by the Department of Public Works for constructing sewers and drains in Brunswick St., Dorchester District. L. K. Rourke is Comr.

Wellesley, Mass.—According to press reports bids will soon be received for the construction of a sewer system to connect with the South Metropolitan system. The estimated cost is $150,000. Noted Mar. 18.

West Haven, Conn.—Plans have been prepared by Clyde Potts, 30 Church St., New York, N. Y., for the construction of a sewer system and pumping station. The estimated cost is $110,000.

Avon, N. Y.—At a recent election the citizens voted in favor of issuing bonds, the proceeds of which will be used for the construction of sewers in Reed, Rochester and in several other streets. W. H. Clark is Village Clk.

+Brighton, N. Y.—The contract has been awarded to the BISHOP CONSTRUCTION CO., 442 Cutler Bldg., Rochester, at $13,000, for constructing a sewage-disposal plant. Bids were opened Mar. 18. Noted Mar. 11.

Buffalo, N. Y.—Bids will be received until Apr. 3 by F. G. Ward, Comr., Dept. of Pub. Wks., for constructing an 8-ft. brick sewer in Swan and Seneca St.; a 4-ft. 4-in. sewer in Calais St.; alternate bids for brick, reinforced-concrete pipe and vitrified segment block sewer in Fillmore Ave. and Northumberland Ave.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Apr. 9, by L. H. Pounds, Borough Pres., for constructing sewers in Tompkins Ave., Fulton St. and in Brooklyn Ave.

New York, N. Y.—(Borough of Brooklyn)—(Official)—C. F. Mentzinger & Co., 355 Broadway, Brooklyn, at $9342, was low bidder for sewerage work in Prospect Park. Noted Mar. 18.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Pasqualle Tomasetti, 1133 60th St., Brooklyn, was low bidder at 86% of standard, for constructing sewers in 15th Ave. Noted Mar. 18.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Frank Merrindino, Inc., 556 17th St., Brooklyn, at 70% of standard, was low bidder for constructing sewers in East 27th St. Noted Mar. 18.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., Apr. 5, by Marcus M. Marks, Borough Pres., for sewerage work in 111th St. near Second Ave.

+New York, N. Y.—(Borough of Queens)—(Official)—Contracts have been awarded for sewerage work as follows: PAINO BROS., at $46,309, for sewers in Nebraska, Liberty and Garden St.; ARTHUR DUMPROFF, at $11,308, for sewers in Hancock St., Graham and Sanford Ave., and to H. BRITTON, at $12,881, for sewers in Fulton St. and Greenwood Ave. Noted Mar. 11.

Ravena, N. Y.—(Official)—Bids will be received until Apr. 10 by the Board of Village Trustees for constructing five miles of vitrified pipe sewers and a sewage treatment plant. A. L. Swanson is Village Clk. and Morrell Vrooman, Gloversville, is Engr. Noted Dec. 24 and Mar. 25.

Syracuse, N. Y.—Plans have been approved by the State Department of Health for the construction of a storm water sewer, estimated to cost $70,000.

Dunellen, N. J.—Bids will be received until 8 p.m., Apr. 5, for constructing storm drains in North Ave., Madison Ave. and in Front St.

Gloucester, N. J.—Pew & Hubbard has been retained by the City Council to prepare plans for the construction of a sewage-disposal plant. Noted Dec. 3.

Oaklyn, N. J.—Bids will be received until Apr. 6 by the Borough Council for constructing a sewer system and sewage disposal plant. Remington & Vosburg, 601 Market St., Camden, is Engr. Noted Dec. 3 and Mar. 11.

Trenton, N. J.—Bids will be received until 2:30 p.m., Apr. 2, for constructing sewers in North Cook and Barnt Ave. and in Nitz and Kuhn Alleys.

Verona, N. J.—An election will be held Apr. 27 to vote on the question of issuing $80,000 in bonds, the proceeds of which will be used for the construction of a sewer system. Ernest N. Bush is Chn. of the Sewer Com.

Annville, Penn.—(Official)—Bids will be received until Apr. 17 by the Commissioners of Annville Township at the office of W. Elmer Heilman, Township Clk., for constructing a storm sewer.

Connellsville, Penn.—Bids will be received until 8 p.m., Apr. 5, by the city for constructing sewers. Charles F. Hirst, Second National Bank Bldg., is Engr.

Downingtown, Penn.—An ordinance has been passed by the Borough Council authorizing the issuance of $70,000 in bonds, the proceeds of which will be used for the construction of a sewer system and sewage disposal plant. Noted Oct. 22 and Nov. 5.

Franklin, Penn.—The construction of a new sanitary sewer system is under consideration by the Borough Council. A. B. Curry is Borough Engr.

Greenville, Penn.—Bids will be received until Apr. 19 by the Borough Council for constructing a sewage-disposal plant and intercepting sewers. Chester & Fleming, Pittsburgh, is Engr. Noted Sept. 24 and Feb. 25.

+Parkesburg, Penn.—The contract for constructing about four miles of sanitary sewers and a sewage-treatment plant has been awarded to RUNDLE & BELVIN, Reading. Noted Mar. 18.

Uniontown, Penn.—Bids will be received until Apr. 6 by A. E. Jones, City Clk., for constructing 1205 ft. of 18-in. and 1965 ft. of 24-in. sewers.

★Baltimore, Md.—(Official)—Bids will be received until 11 a.m., Apr. 14, by the Board of Awards at the City Register's office for Contract No. 149 for covering Section 1 of the Gwynn's Falls intercepter. John Hubert is Act. Pres. Bd. of Awards.

Rockville, Md.—According to press reports, bids for the construction of a sewer system have been rejected. Noted Nov. 26.

Richmond, Va.—Bids will be received until Apr. 2 for the construction of a section of the Bacon quarter branch sewer.

White Sulphur Springs, W. Va.—See item under "Water Supply-Irrigation."

Clinton, N. C.—Bids will be received until Apr. 28 by A. B. Crumpler, Mayor, for constructing 5½ miles of vitrified pipe sewers. William M. Piatt, Durham, is Engr.

Manning, S. C.—(Official)—See item under "Water Supply-Irrigation."

Decatur, Ga.—Bonds for $18,000 have been voted by the citizens, the proceeds of which will be used for the extension of the sewer system. F. T. Hopkins is Mayor.

Savannah, Ga.—The citizens contemplate issuing bonds for $600,000, the proceeds of which will be used for the completion of the sewer system.

South Jacksonville, Fla.—The City Council contemplates spending $65,000 for the construction of sewers and for paving.

Birmingham, Ala.—Julian Kendrick, City Engr., has been authorized by the City Council to prepare plans for the construction of sanitary sewers in the vicinity of 43d St. and 10th and 11th Ave., East Birmingham. The estimated cost is $5000.

Covington, Ky.—The construction of a trunk sewer in Latonia Ave. at an estimated cost of $25,000 is under consideration by the Department of Public Improvements.

Cleveland Heights, Ohio—Bids will be received until Apr. 19 by H. H. Canfield, Village Clk., for the construction of sanitary sewers in De Soto Ave. and Lee Rd. The F. A. Pease Engineering Co., Marshall Bldg., Cleveland, prepared the plans.

+Granville, Ohio—The contract for the construction of sewers has been awarded to CHAPMAN & GLOVER, Lorain, at $19,388; for the disposal plant to the G. E. SCOTT ENGINEERING CO., Norwalk, at $14,316. Noted Feb. 18.

Springfield, Ohio—The lowest bid for the construction of sewers in Scioto and Kenton St. was that of Boyd & Cook, Dayton, at $7872. The same company submitted the lowest bid, $5105, for constructing sewers in North Main and Miami St. Charles F. Smith & Co., Dayton, was the lowest bidder at $9342 for the construction of a sewer in South Main St. Noted Feb. 25.

Toledo, Ohio—(Official)—H. H. Wagenhals, Asst. Engr., advises that the Sanitary Engineering Department of Lucas County, Ohio, is preparing plans for a sewage-pumping station, having a maximum capacity of 1000 gal. per min. It has not been decided whether to install ejectors or centrifugal pumps. This station is to be one of several to be constructed in the near future. William H. Gould is County Sanitary Engr.

Gary, Ind.—All former action for the construction of District Sewer No. 24 has been recinded by the Board of Public Works and new plans are being prepared. W. J. Fulton is City Engr. Noted Mar. 18.

+Indianapolis, Ind.—The contract for the construction of sewers in Cottage Ave. and Draper St. has been awarded to GEORGE W. SCHAUER & SON, at $9652.

Ishpeming, Mich.—Press reports state that the citizens have voted $30,000 in bonds, the proceeds to be used in defraying the cost of a sewer system.

Christopher, Ill.—(Official)—See item under "Water Supply-Irrigation."

Columbia, Ill.—Preliminary plans are being prepared by the Fuller-Coult Co., Consult. Engr., Chemical Bldg., St. Louis, for the proposed sewer system.

Janesville, Wis.—Bids will be received until Apr. 16 by the Board of Public Works for the construction of sewers in Sewerage Districts 5, 10, 11, 14 and 15, about 621 lin.ft. of 8- to 12-in. sewers. C. V. Kerch is City Engr. Noted Jan. 14.

Oconomowoc, Wis.—Plans are being prepared for approximately two miles of 12-, 18- and 24-in. storm sewers. W. E. Reichardt is Engr. H. J. Schoenike is City Clk.

Oshkosh, Wis.—Bids will be received by the Board of Public Works until Apr. 6 for the construction of sections of sewer in Seventh and Lincoln Ave. and in Evans, Sterling, Tenth and other streets.

+Burlington, Iowa—The contract for the construction of the Gnahn St. sewer and branches, about 16,900 lin.ft., has been awarded to YOUNG & BUSCHER CONSTRUCTION CO., Burlington, at $1.22 per lin.ft. H. G. Vollmer is City Engr.

Hartley, Iowa—Bruce, Standevan & Boynton, Engr., 430 Lee Bldg., Omaha, Neb., is preparing plans for a sewer system to cost about $35,000. H. T. Broder is Town Clk.

Jewell Junction, Iowa—(Jewell post office)—The Town Council has passed a resolution for the construction of a sanitary sewer system, disposal plant and outlet sewers. M. J. Severson is Town Clk.

Lake Mills, Iowa—M. Tschirgi & Sons, Engr., American Trust Bldg., Cedar Rapids, is preparing plans for a sewer system and disposal plant. The estimated cost is $25,000. A. Aasgaard is Mayor.

Lake View, Iowa—Plans are being prepared by Bruce, Standevan & Boynton, Engr., Bee Bldg., Omaha, Neb., for a sewer system estimated to cost about $13,000. E. P. Hartman is Town Clk.

+Leon, Iowa—(Official)—The contract for sewer work has been awarded to GEORGE M. KING, Des Moines, Iowa, at $33,896. For the construction of the disposal plant to the PICKUS ENGINEERING & CONSTRUCTION CO., Sioux City, at $8874. Noted Mar. 11.

+Mason City, Iowa—The contract for the construction of sewers, 8-, 10- and 15-in. pipe, has been awarded to S. R. BOWEN, Main St., Mason City, at about $26,500. J. Stanton is Mayor. Noted Mar. 4.

+Onawa, Iowa—The city has awarded the contract for the construction of sanitary sewers to the INTER-MOUNTAIN BRIDGE & CONSTRUCTION CO., Tecumseh, Neb., at $38,383; for the disposal plant to C. B. REYNOLDS, Council Bluffs, at $11,867.

Sanborn, Iowa—Plans are being prepared and bids will be received about June 1 for the construction of approximately four miles of sewers and a disposal plant. P. A. Edquist, Omaha National Bank Bldg., Omaha, Neb., is Engr. J. H. McNeil is Mayor.

Sioux City, Iowa—Press reports state that bids will be received by Paul J. Wells, City Clk., for the construction of storm sewers in 29th St., Douglas to Grandview Blvd., in Grandview Blvd., 20th to 22d St., in Ingleside Ave., 16th to Dale St., and from 19th to 20th St.

State Center, Iowa—Bids will be received until Apr. 15 by J. W. Sparks, Town Clk., for the construction of a sanitary sewerage system, about 24,213 lin.ft. of 8- and 10-in. sewer; also a disposal plant having a 50,000-gal. capacity reinforced tank, sand filters and accessories.

St. Cloud, Minn.—Bids will be received until Apr. 13 by George G. Magnuson, City Clk., for the construction of sewers in District No. 6, requiring 10,063 ft. of 8- to 15-in. pipe sewers, 28 manholes and four flush tanks.

Wisner, Neb.—An election will be held on Apr. 9 to vote on a bond issue of $20,000 for the construction of a sewer system. Bruce, Standevan & Boynton, Omaha, is Engr. C. S. Daily is City Clk.

Belgrade, Mont.—A survey is being made by the C. H. Green Co., Consult. Engr., Spokane, Wash., for the proposed sewerage system. Noted Mar. 25.

Judith Gap, Mont.—The City Council is considering the installation of a sewer system in the business section of the town and a septic tank. The estimated cost is $7000.

McGehee, Ark.—The Council has under consideration an ordinance authorizing the expenditure of $90,000 for municipal improvements. About $30,000 will be used for a sewer system.

San Antonio, Tex.—Bids will be received by F. Fries, City Clk., on Apr. 12 and 19, respectively, for the following sewer work: Constructing approximately 1300 ft. of 60-in. sanitary sewer to connect with the steel flume across San Antonio River; constructing a 60-in. steel flume across the same river.

+Limon, Colo.—The contract for the construction of a sewer system is reported awarded to the GEORGE H. SETHMAN CO., Denver.

Parma, Idaho—The City Council plans to build 5000 lin.ft. of sewers during the summer. It is reported that bids will soon be received.

Ogden, Utah—Washington Jenkins, City Engr., estimates the cost of the proposed storm water sewer in Madison Ave., 20th to 27th St., at $15,000, and from 27th to Ogden River at $21,000.

Mesa, Ariz.—The Sewer Commission of the City Council has engaged Julius Aichele, a representative of John Sandburg & Co., Engr., Denver, Colo., to prepare preliminary plans for the construction of a sewer system. The estimated cost is $75,000.

Aberdeen, Wash.—Press reports state that bids will be received until Apr. 28 for the construction of a sanitary sewer system in West Aberdeen. The work includes laying 32,000 ft. 8-in. vitrified pipe, 12,000 ft. of 10-in., 2100 ft. of 12-in., 1500 ft. of 15-in., 1400 ft. of 20-in., 1400 ft. of 24-in., 700 ft. of 30-in. and 3100 ft. of 36-in. Also 225 manholes. Louis D. Kelsey is City Engr.

Spokane, Wash.—It is reported that the City Council has ordered changes in sewers because of the grade separation at the tracks of the Northern Pacific Ry. The estimated cost is $50,000. Bids will be received for three groups: Sprague Ave. and Division St., Third and Fourth Ave., crossing Northern Pacific right-of-way, Fifth Ave. and Cannon St. Morton McCartney is City Engr.

Tacoma, Wash.—Press reports state that the City Commission is considering the construction of sanitary sewers in South 38th St. The estimated cost is $13,000.

+Ontario, Calif.—The contract for the construction of an outfall sewer connecting with the proposed sewer system has been awarded to J. CHUTUK, Los Angeles, at $14,540. Noted Jan. 14 and Feb. 11.

+Santa Barbara, Calif.—The City Trustees have awarded a contract for sewer work in the downtown district to A. L. PENDOLA and E. A. GARLAND, Santa Barbara, at $10,440.

Stockton, Calif.—The City Commissioners have approved the plans of C. E. Grunsky, Engr., San Francisco, and H. T. Compton, City Engr., for the proposed sewer system. Noted Dec. 24 and Jan. 7.

Turlock, Calif.—The City Council will receive bids until Apr. 6 for constructing sewers in West Main St. to the city limits.

Ottawa, Ont.—The City Council plans to construct 9- and 12-in. sewers of tile in Burnside, Carruthers, Hinchey, Forward, Parkdale and Emerson Ave. The estimated cost is $24,635. John Henderson is City Clk.

Vancouver, B. C.—The Board of Public Works has been asked by the City Engineer to call for bids for the construction of 1120 ft. of 42-in. reinforced-concrete pipe sewer and 800 ft. of 30-in. concrete pipe sewer for Carolina St. in Ward 6. Other sewer work to cost $43,380 has been recommended.

West Kitsilano, B. C.—The City Council has approved plans already prepared by the City Engineer for the construction of sewers throughout the city. The estimated cost is $50,000. Construction will be begun as soon as finances are arranged.

GARBAGE

Yonkers, N. Y.—The following bids were received by the Board of Contract and Supply, Mar. 15 for the construction of a garbage crematory: V. J. Booth, Construction Co., New York, $51,512; George T. Kelly, $63,000; John M. Voss, $64,416; Kelly Construction Co., $64,750; Stevenson & Murray Co., $68,250, and Lynch & Larkin, $71,050. D. F. Fulton, City Engr. Noted Oct. 22.

✚Charlotte, N. C.—(Official)—The contract for the construction of an incinerator has been awarded to J. W. HAAS at about $18,000. Samuel H. Lea is City Engr. Noted Aug. 27.

Toronto, Ont.—The Board of Control received 16 bids for the construction of the Don incinerator. The Street Commissioner has recommended that the Canadian Griscom-Russell Co. be awarded the contract at $49,200, a Sterling incinerator to be installed. The next lowest bid was that of Self Bros., at $57,500. Noted Nov. 19 and Mar. 18.

STREETS AND ROADS

Boston, Mass.—Bids will be received until Apr. 6 by the State Highway Commissioner for the construction of 10,200 lin.ft. of road in Duxbury; 3800 lin.ft. in Grafton, and 5200 lin.ft. in Gloucester. Arthur D. Dean, 15 Ashburton Pl., is Ch. Engr.

Northampton, Mass.—Bids will be received until noon, Apr. 3, by the Superintendent of Streets for 50,000 gal. road oil, 40 to 60% asphalt.

Pittsfield, Mass.—Bids will be received until April 9 by Board of Public Works for ten cars of 45% asphaltic road oil. Louis B. Cummings is Clk. of the Bd.

Revere, Mass.—Bids will be received until Apr. 5 by the Public Works Department for the construction of granolithic sidewalks during 1915. Carl G. Richmond is Supt.

Hartford, Conn.—Bids for state road work were received by the State Highway Commissioner Mar. 22, as follows: Wethersfield Township, about 7860 lin.ft. of bituminous macadam on Maple, Mill and Prospect St., Pierson Engineering & Construction Co., Hartford, $13,390; Olmsted & Olmsted, Inc., East Hartford, $14,757, Leonardo Suzio, Meriden, $12,771; Connecticut Good Roads & Construction Co., New Britain, $14,527; A. Brazos & Sons, Middletown, $13,672; Lane Construction Corporation, Meriden, $12,751; Thomas Kearney, Meriden, $13,282; B. D. Pierce, Jr. Co., Bridgeport, $12,748. Enfield Township, 8650 lin.ft. of three-in. trap rock macadam on South St. A. E. Douglas, Glastonbury, $10,668; Leonardo Suzio, Meriden, $10,816; A. D. Bridge's Sons, Inc., Hazardville, Conn., $9779. South Windsor Township, about 8310 lin.ft. of bituminous macadam on Deming St., Thomas Kearney, Meriden, $20,920; Olin T. Benedict, Pittsfield, $16,319; B. Perini & Co., Ashland, Mass., $17,166; John DeMichiel & Bro., Torrington, $18,588; A. D. Bridge's Sons, Inc., Hazardville, $14,180; Louis Longhi & Bro., Torrington, $18,819; Connecticut Good Roads & Construction Co., New Britain, $16,858; Leonardo Suzio, Meriden, $14,172; A. Brazos & Sons, Middletown, $14,167; Pierson Engineering & Construction Co., Hartford, $17,415; B. D. Pierce, Jr. Co., Bridgeport, $16,352. Bloomfield Township, about 6610 lin.ft. of native stone macadam on the Simsbury Rd., Louis Longhi & Bro., Torrington, $14,945; Connecticut Good Roads & Construction Co., New Britain, $15,159; A. D. Bridge's Sons, Inc., Hazardville, $15,365; A. Brazos & Sons, Middletown, $14,421; John DeMichiel & Bro., Torrington, Conn., $14,247; Robert G. Miller Contracting Co., Hartford, $13,620; also 6879 lin.ft. trap rock macadam and macadam resurfacing on the Blue Hills Rd.; Louis Longhi & Bro., Torrington, Conn., $11,865; Connecticut Good Roads & Construction Co., New Britain, $13,468; A. D. Bridge's Sons, Inc., Hazardville, $11,971; A. Brazos & Sons, Middletown, $12,243; John DeMichiel & Bro., Torrington, $11,548; Robert G. Miller Contracting Co., Hartford, $11,594; John Arborio, New Haven, $11,930; A. C. Sternberg, Jr., Construction Co., West Hartford, $13,413; B. D. Pierce, Jr. Co., Bridgeport, $10,964; Pierson Engineering & Construction Co., Hartford, $13,055. Stamford Township, about 4810 lin.ft. of native stone macadam (a) or gravel (b) on the Long Ridge Rd. Goodman & Trumbull Co., Torrington, (a) $12,481 (b) $9039; A. D. Bridge's Sons, Inc., Hazardville, (a) $11,082; Peter Mitchell, Greenwich, (a) $12,654, (b) $8648; A. Brazos & Sons, Middletown, (a) $9731, (b) $6859; John Arborio, New Haven, (a) $10,270, (b) $6180, Louis Longhi & Bro., Torrington, (a) $12,943, (b) $8375; Kellogg & Gregory Co., Danbury, Conn., (a) $11,227, (b) $7715; H. Sanford Osborn, Redding Ridge, (a) $11,374, (b) $7504; B. D. Pierce, Jr. Co., Bridgeport, (a) $10,507, (b) $7680; Angelo Roina, Greenwich, Conn., (a) $20,031, (b) $10,100; Frank Palmer, Stamford,, (a) $13,509, (b) $8748; T. F. Foley & Co., South Norwalk, (a) $12,766, (b) $11,937; William H. Arthur, Stamford, (a) $11,473. Windham Township, about 6930 lin.ft. of gravel road on the Windham-Scotland Rd. Frank Arrigoni & Bro., Middletown, $11,358; Goodman & Trumbull Co., Torrington, $11,609; Framingham Construction Co., Framingham, Mass., $9632; A. D. Bridge's Sons, Inc., Hazardville, $10,966; A. Brazos & Sons, Middletown, $9642; Connecticut Good Roads & Construction Co., New Britain, $11,547; Dean L. Chilson, Franklin, Mass., $13,529; B. N. Beard, Co., Shelton, $11,880; A. Vito, Construction Corp., Thompson, $11,559; Archie B. Cadwell, New Britain, $11,737; Ahern Construction Co., Willimantic, $12,345; Fred E. Ellis, Melrose, Mass., $14,686. Columbia Township, about 9964 lin.ft. of native stone macadam on the Columbia Green Rd. Fred E. Ellis, Melrose, Mass., $28,054; Connecticut Good roads & Construction Co., New Britain, $21,976; Goodman & Trumbull, Co., Torrington, $21,876; Frank Arrigoni & Bro., Middletown, $22,271; A. Brazos & Sons, $19,725; A. D. Bridge's Sons, Inc., $20,802; Ahern Construction Co., Willimantic, $20,323; Robert G. Miller, Contracting Co., Hartford, $18,354; Archie B. Cadwell, New Britain, $20,047; A. Vito, Construction Corp., Thompson, $19,181; Caputo & Giovaninni, 178 North St., Boston, Mass., $18,810. Waterbury City, about 10,100 lin.ft. of 8-in. gravel on Thomaston Ave. C. W. Tryon, Meriden, $16,443; Connecticut Good Roads & Construction Co., New Britain, $12,217; John Arborio, New Haven, $14,148; Goodman & Trumbull Co., Torrington, $18,331; B. Perini, Ashland, Mass., $13,536; Barbara & D'Auria, Waterbury, $14,849; Framingham Construction Co., Framingham, Mass., $14,293; B. N. Beard Co., Shelton, $17,465; E. B. Reilly, Waterbury, $15,611; H. Sanford Osborn, Redding Ridge, $15,610; Pierson Engineering & Construction Co., Hartford, $16,391; John DeMichiel & Bro., Torrington, $12,884; Thomas Kearney, Meriden, $16,012; B. D. Pierce, Jr. Co., Bridgeport, $13,319; A. Brazos & Sons, Middletown, $15,052; Louis Longhi & Bro., Torrington, $391,442; Andreani & Buzzi, Torrington, $14,116. Noted Mar. 18.

Manchester, Conn.—Bids will be received until 5 p.m., Apr. 3, for the construction of about 60,000 sq.ft. of concrete walks and 10,000 ft. of concrete curbing. J. Frank Bower is Supt. of Streets.

✚Meriden, Conn.—(Official)—Contracts have been awarded for paving State St. with wood block to LEONARDO SEIZIO, 185 Lewis Ave., Meriden, and for brick paving to THOMAS KEARNEY, at $8388. Noted Mar. 11.

New Haven, Conn.—Bids will be received until 2 p.m., Apr. 5, by F. L. Ford, City Engr., for improving Harriet St.

★Albany, N. Y.—(Official)—Bids will be received until 1 p.m., Apr. 20, by Edwin Duffey, State Highway Comr., for improving highways in various counties.

Albany, N. Y.—Press reports state that Edwin Duffey, Highway Comr., has decided to reject all bids received for the construction of a road around the base of Storm King Mountain.

✚★Albany, N. Y.—(Official)—Bids were received by the State Highway Commission, 55 Lancaster St., Mar. 23 for the construction of public highways, by State Aid as follows:

Road No. 965-A, Allegheny County, 9.52 miles—Richard Hopkins, Troy, $19,676; Flood & Van Wirt Co., Hudson Falls, $19,149; Kennedy Construction Co., Albany, $19,449; McGREEVEY. McGUIGAN & BAUM CONSTRUCTION CO., Elmira, $17,968 (awarded contract); P. J. Kennedy, Utica, $19,502; Bison City Engineering & Contracting Co., Buffalo, $18,997; Dale Engineering Co., Utica, $18,468.

Road No. 5543, Cattaraugus County, 6.98 miles—I. M. Ludington & Sons, Inc., Rochester, $120,749; George Holler, Albany, $119,438; AUSTIN W. SUMMERS, Buffalo, $107,770 (awarded contract); Woolsey Construction Co., Davenport, Iowa, $115,072; M. Bennett & Sons, Indiana, Penn., $112,060; Bison City Engineering & Contracting Co., Inc., Buffalo, $123,270; Lesher, Roess & Lesher, Oil City, Penn., $114,507.

Road No. 5258-A, Cattaraugus County, 5.35 miles—George Holler, Albany, $95,348; I. M. Ludington & Sons, Inc., Rochester, $96,560; Serviss & Mackey, Youngstown, $93,800; AUSTIN W. SUMMERS, Buffalo, $90,223 (awarded contract); Lake Shore Construction & Supply Co., Dunkirk, $94,730; Michael H. Ripton, Rochester, $93,995; James Rossney, Buffalo, $95,792.

Road No. 1230, Columbia County, 4.97 miles—Brady & Oltarsh, New York, $61,736; James Garafano & Sons, Mt. Vernon, $60,817; C. W. Tyrone, Boyntonville, $62,549; RUSSO-PARKER CONSTRUCTION CO., Hudson, $58,922 (awarded contract); John L. Hayes Construction Co., Yonkers, $60,492; Harris-Rose Construction Corporation, New York, $62,811; H. B. Sproul Construction Co., Inc., Peekskill, $61,654.

Road No. 5546, Erie County, 4.48 miles—Michael H. Ripton. Rochester, $69,754; Harry B. Harrison, East Rochester, $71,206; Lake Shore Construction & Supply Co., Dunkirk,. $71,301; AUSTIN W. SUMMERS, Buffalo, $69,736 (awarded contract); John Johnson Construction Co., Buffalo, $70,484; Louis H. Gipp, Buffalo, $73,300; Bison City Engineering & Contracting Co., Inc., Buffalo, $73,245.

Road No. 1222, Franklin County, 0.22 mile—M. J. Vitilli, Saranac Lake, $3586; Rumpft & Stevens, Lake Placid, $3599; JOHN F. LEWIS, Albany, $3474 (awarded contract); Flood & Van Wirt Co., Hudson Falls, $3682; P. J. Kennedy, Utica, $4155; William H. Murray, Saranac Lake, $3919; S. B. Van Wagonen, Inc., Rondout, $4038.

Road No. 5269-B, Jefferson County, 0.51 mile—John F. Lewis, Albany, $6032; P. J. Kennedy, Utica, $6453; A. J. Rockwood, Rochester, $6092; Phelan & Sullivan, Utica, $6432; Semper Bros., Watertown, $6249; Ward E. Griffin, Massena, $6370; Rumpft & Stevens, Lake Placid, $6499; J. A. WEIDMAN, Syracuse, $5816 (awarded contract).

Road No. 1237, Monroe County, 0.66 mile—Michael H. Ripton, Rochester, $22,762; Fulton Engineering Co., Inc., Albany, $22,891; Ribstine-Holter Construction Co., Inc., Rochester, $22,834; John Petrossi Co., Rochester, $22,951; Monroe Roads Co., Pittsford, $22,395; GREENFIELD CONSTRUCTION CO., Hornell, $22,294 (awarded contract); Connors & Gallivan, Elmira, $22,628.

Road No. 758-A, Niagara County, 8.33 miles—Public Service Contracting Co., Niagara Falls, $38,977; Greenfield Construction Co., Hornell, $39,046; J. A. Culkin, Oswego, $41,717; Harradine Bros. Co., Inc., Spencerport, $38,880; Greece Construction Co., Rochester, $40,427; C. B. Whitmore Co., Lockport, $41,540; AUSTIN W. SUMMERS, Buffalo, $38,767 (awarded contract).

Road No. 909-A, Putnam County, 0.13 mile—John Twinane, Hartsdale, $1848; JAMES GARAFANO & SON. INC., Mt. Vernon, $1733 (awarded contract), James L. Kehoe, Newburgh, $2346; Amos D. Bridge's Sons, Inc., Hazardville, Conn., $2066; H. B. Sproul Construction Co., Inc., Peekskill, $1911.

Road No. 5533, Rensselaer County, 2.11 miles—John Arborio, New Haven, Conn., $29,413; John W. Davitt, Albany, $29,943; Gifford Construction Co., Jamaica, $28,811; Highway Engineering Co., Albany, $29,449; Parker-Hassam Paving Co., Worcester, Mass., $29,799; Murray Contracting Co., Troy, $26,936; BELMAR CONTRACTING CO. INC., Troy, $26,814 (awarded contract).

Road No. 5234, Sullivan County, 8.51 miles—JOHN S. ARMSTRONG, Middletown, $37,127 (awarded contract); H. B. Sproul Contracting Co., Inc., Peekskill, $41,313; John De Michael & Bro., Torrington, Conn., $40,601; John J. Guinan

Contracting Co., Brooklyn, $37,205; Eggleston & Garthwaite, Yonkers, $37,878; Flood & Van Wirt Co., Hudson Falls, $40,605; Ruddy-Saunders Construction Co., Troy, $41,456. Noted Mar. 4.

Ithaca, N. Y.—Bonds for $43,000 were sold Mar. 24, the proceeds of which will be used for improving and constructing highways in Tompkins County.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Mar. 24 by L. H. Pounds, Borough Pres., for improving streets as follows: (a) East 17th St., (b) 54th St., (c) West 32d St.: Sicilian Asphalt Paving Co., (a) $4879, (b) $5625, (c) $9095; Cranford Co., (a) $4930, (b) $5561, (c) $9203; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., Brooklyn, (a) $4677, (b) $5067, (c) $8246; Topeka Paving Co., Inc., (a) $5021, (b) $5444, (c) $8878; Uvalde Asphalt Paving Co., (a) $4700, (b) $5457, (c) $8471; Union Paving Co., (a) $6332, (c) $11,617; Barber Asphalt Paving Co., (b) $5777, (c) $9529. Noted Mar. 18.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Apr. 7, by L. H. Pounds, Borough Pres., for improving a number of streets.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Mar. 24 for 200,000 gal. of tar road surfacing material from: Barrett Mfg. Co., 17 Battery Pl., $10,940; United Gas Improvement Co., $11,860.

✚New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract for improving Ave. U from Coney Island to Gravesend Ave. has been awarded to L. GRANATO, at $6287. Noted Mar. 4 and 18.

New York, N. Y.—(Borough of Queens)—(Official) — Bids were received Mar. 24 for 5000 cu.yd. of gravel or chipstone as follows, per cu.yd.: T. F. Tuohy & Co. Inc., $1.59; Charles A. Myers Contracting Co., $1.65; Frederick Starr Contracting Co., $1.47.

New York, N. Y.—(Borough of Queens)—Bids were received Mar. 24 by the Borough President for laying sidewalks on Murray St. from Broadway to Mitchell Ave. and on Bathgate St. from Mitchell Ave. to Bayside Ave. as follows: F. Soviers, $18,452; Peace Bros., $19,717; C. Vanderbilt, $19,139; V. T. Maxwell, $21,487; G. Marshall, $18,805; Astoria Contracting Co., $18,133; Charles A. Myers Contracting Co., $17,905; Ulrich & Co., $18,223; M. F. Hickey, $21,367; M. F. Scott, $18,415; Gifford Contracting Co., $17,759; H. J. Mullen Contracting Co., $17,526.

New York, N. Y.—(Borough Queens)—(Official)—Bids will be received until 11 a.m., Apr. 7, by Maurice E. Connolly, Borough Pres., for improving a number of streets.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until noon, Apr. 6, by Charles J. McCormack, Borough Pres., for improving the south side of Castleton Ave. from Havenwood Rd. to Brighton Ave.

New York, N. Y.—(Official)—See item under "Water Supply-Irrigation."

Niagara Falls, N. Y.—(Official)—Bids will be received until 7:30 p.m., Apr. 6, by the Board of Public Works, for paving various streets and alleys. F. S. Parkhurst, Jr., is City Engr., and Thomas H. Hogan is City Clk.

✚Oneonta, N. Y.—Press reports state that the contract for paving River St. with bituminous macadam has been awarded to PHELAN & SULLIVAN, Utica, N. Y., at $19,551. Noted Mar. 4.

★Oswego, N. Y.—(Official)—Bids will be received until 2 p.m., Apr. 9, by the Department of Works for constructing approximately 4000 sq.yd. of vitrified brick pavement and for resurfacing 8500 sq.yd. of old sheet asphalt pavement with vitrified brick.

Rochester, N. Y.—The City Council proposes to pave Norton St. with asphalt or brick at an estimated cost of $75,000.

✚Troy, N. Y.—A contract for repaving 7000 sq.yd. of asphalt pavement has been awarded to JOHN W. GAVITT, Troy.

Utica, N. Y.—Bonds for $5469 were sold Mar. 22, the proceeds of which will be used for paving.

Blairstown, N. J.—The Board of Chosen Freeholders of Warren County, Belvidere, will build a new macadam road from Blairstown to the Lackawanna station. Surveys have been made by the County Engineer.

Bloomfield, N. J.—The city plans to pave Waverly Pl. Estimated cost, $25,000. Ernest Baechlin, National Bank Bldg., Bloomfield, is Engr.

Camden, N. J.—The City Council plans the improvement of Broadway from Federal St. to Kaighn Ave. with sheet asphalt. Negotiations are under way with the Public Service Ry. Co. for the installation of belgian block paving between its rails on this thoroughfare.

Camden, N. J.—The City Council has passed an ordinance providing for the improvement of North Second and State St. with sheet asphalt pavement.

Haddonfield, N. J.—The Board of Commissioners plans the improvement of Kings Highway, from Chestnut St to Madison Ave., connecting with the county paving to be done by the Board of Freeholders.

Jersey City, N. J.—Bids will soon be received by the Board of City Commissioners for paving High St. from Baldwin to Summit Ave.

★Montclair, N. J.—(Official)—Bids will be received until 8 p.m., Apr. 12, by Harry Trippett, Town Clk., for 50,000 gal. of asphalt for resurfacing streets.

★Montclair, N. J.—(Official)—Bids will be received until 8 p.m., Apr. 12, by Harry Trippett, Town Clk., for about 130,000 gal. of asphalt road oil containing 45% asphalt.

Paterson, N. J.—Bids will be received by the county until 2 p.m., Apr. 7, for repairing and macadamizing 31 roads. Plans are at the office of the County Engineer, Court House, Paterson.

Toms River, N. J.—(Official)—Bids will be received until noon, Apr. 6, by the Board of Chosen Freeholders of Ocean County for building a road in Dover Township.

Trenton, N. J.—The Board of Freeholders of Mercer County will soon call for bids for the construction of a new bituminous concrete road from Washington's Crossing to the Hunterdon County line, about four miles. The contract will be let in two sections.

Union, N. J.—(Weehawken post office)—Robert Gaw, Town, Engr., has been authorized to prepare plans for repaving Fifth St. with granite block.

Darby, Penn.—Bids will be received by the Borough Council until Apr. 5 for the sale of $30,000 in bonds, the proceeds to be used for street improvements.

Harrisburg, Penn.—Bids will be received until Apr. 7 by W. H. Lynch, Supt. Streets and Pub. Imp., for constructing an asphalt plant.

✚McKeesport, Penn.—The contract for improving Walnut St. from 14th to 16th Ave. has been awarded to F. H. CROZIER at $10,426.

✚★Philadelphia, Penn.—The contract for improving the Parkway from 19th to 22nd St. has been awarded to the McNICHOL PAVING & CONSTRUCTION CO., Philadelphia, Penn., at $151,591. Noted Feb. 25 and Mar. 25.

Sharpsburg, Penn.—Bids will be received until 7:30 p.m., Apr. 12, by J. F. Barry, Borough Clk., for grading, paving and curbing various streets.

✚★Wilkes-Barre, Penn.—(Official)—Contracts have been awarded for paving Magnolia Ave., Wood, River, Main, Race, Blackman, High and Grove St., to the STATE PAVING CO.; Kidder St. to B. G. COON CONTRACTING CO.; South St., to the HERRICK CONTRACTING CO.; Foster Lane to FRANK ANSTETT. Noted Feb. 11.

✚Baltimore, Md.—Contracts have been awarded by the State Road Commissioners for paving as follows: Cathedral St. from Mt. Royal Ave. to Madison St., 0.47 miles, with asphalt, to the AMERICAN PAVING & CONSTRUCTION CO., Montebello Ave., and Jenkins Lane, Baltimore, Md., at $20,753. For roadway, from Cumberland to Nave's Farm, Alleghany, County, to THOMAS, BENNETT & HUNTER, Westminster, Md. at $11,715, consisting of 1.65 miles of resurfacing. For 3.92 miles of concrete roadway on the Annapolis Blvd., from Glen Brunie to Pumphrey, Anne Arundel County, to FISHER & CARROZA, 437 East Preston St., Baltimore, at $43,954. For 0.85 mile of resurfacing, through Grantsville, Garrett County, to FOGEL & CO., at $8476. For 5.66 miles gravel resurfacing, from La Plata to near Ripley, Charles County, to THOMAS MULLAN, 4001 Greenmount Ave., Baltimore at $22,854. For one mile of resurfacing through Hancock, Washington County, to F. J. McGUIRE, at $13,446.

Baltimore, Md.—Bids will be received until Apr. 13, by the Maryland State Road Commissioners, 601 Garrett Bldg., Baltimore, Md., for road construction, under Contract Ab-8, Baltimore City, sections of Maryland Ave., and on Russell, Bush and Ridgely St., 0.83 miles brick, sheet asphalt and granite block; Contract Bc-3A, Baltimore City, Frederick Ave., over Gwynn's Falls Bridge, 0.34 miles vitrified brick paving; Contract o162B, Garrett County, 3.73 miles resurfacing, from Thayerville toward McHenry; Contract CE-18 Cecil County, 1.38 miles concrete or macadam, through Elkton from Little Elk Bridge to first cross-road, and from Pennsylvania crossing to Big Elk bridge.

✚Pulaski, Va.—A contract for permanent street improvements has been awarded to the HOTEL CONSTRUCTION CO., Pulaski, Va., at approximately $103,059. Noted Sept. 10, 1914, and Feb. 11, 1915.

Bryson City, N. C.—Bids will be received until Apr. 10 by the Commissioners of Swain County for constructing about 26 miles of road. T. M. Howeston is Engr.

Taylorsville, N. C.—At the election held Mar. 9 the citizens voted in favor of issuing $150,000 in bonds, the proceeds of which will be used for constructing and improving roads. Noted Feb. 18.

✚Waycross, Ga.—The contract for paving Carswell Ave. with brick has been awarded to the GEORGIA ENGINEERING CO., Augusta, Ga.

Anniston, Ala.—Bids will be received until 2 p.m., Apr. 7, by the Commissioners of Calhoun County for grading, draining and surfacing the Piedmont and Jacksonville Rd. The estimated cost is $4616.

✚Birmingham, Ala.—The contract for paving 10th Ave., S., from 26th to 28th St. has been awarded to the BIRMINGHAM PAVING CO., Birmingham, at $8000.

Ashtabula, Ohio—Bids will be received until Apr. 19 by A. V. Hillyer for improving a portion of Center Rd.

Canal Dover, Ohio—(Official)—Bids will be received until noon, Apr. 14, for paving Iron and Slingluff Ave. George E. Arnold is City Engr.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Apr. 23, by the Board of Commissioners of Hamilton County for improving the Hunt Rd. Albert Reinhardt is Clk. of the Comrs.

Cleveland, Ohio—Bids will be received until 10 a.m., Apr. 17, by the Board of County Commissioners for improving Clague Rd. No. 2 from Lake Rd. in Bay Village to North Ridge Rd. in Dover Township. W. A. Stinchcomb is County Surveyor and E. G. Krause is Clk. of Bd.

Columbus, Ohio—Bids will be received until 2 p.m., Apr. 2, by Clinton Cowan, State Highway Comr., for road improvements in Sandusky, Shelby, Hancock, Huron, Erie, Paulding, Warren, Putnam, Lake, Champaign, Tuscarawas, Montgomery, Defiance and Allen Counties.

✚Columbus, Ohio—(Official)—The State Department of Highways awarded contracts as follows: Erie County, Section K, Cleveland-Sandusky Rd., concrete, the BUCKEYE ENGINEERING CO., Norwalk, Ohio, at $64,400; Knox County, Section G, Mt. Vernon-Coshocton Rd., waterbound macadam, the JONES CONSTRUCTION CO., Mt. Vernon, Ohio, at $39,850; Mercer County, Section F, St. Mary's-Ft. Wayne Rd., ISAAC PUTNAM, Van Wert, Ohio, $19,000. Noted Mar. 4.

Conneaut, Ohio—(Official)—Bids will be received until noon, Apr. 10, by S. N. Mahaffey, Dir. Pub. Ser., for improving a section of Grant St.

Defiance, Ohio—Bids will be received until Apr. 5 by Roger Saoust, Clk. of the Bd. of Comr. of Defiance County, for grading and macadamizing Powers Rd. No. 6.

+Eden, Ohio—Press reports state that a contract for brick paving has been awarded to W. W. HATCH & SONS, Goshen, Ind., at $57,589.

Lorain, Ohio—Press reports state that bids will soon be received for paving West Erie Ave. The estimated cost of the work is $45,000. C. M. Osborne is City Engr.

Nova, Ohio—Bids will be received until noon, Apr. 16, by J. W. Davidson, Clk. of the Bd. of Trustees of Troy Township, for macadamizing the Nova and Eastern and the Nova and Western Rd.

Indianapolis, Ind.—(Official)—Bids will be received until 10 a.m., Apr. 5, by the Board of Public Works for improving Oriental and 36th St. and Good Ave. B. J. T. Jeup is City Engr.

+Indianapolis, Ind.—The contract for paving East New York St. from Arsenal Ave. to Randolph St. has been awarded to the UNION ASPHALT CONSTRUCTION CO., at $7601.

+Indianapolis, Ind.—The contract for paving McPherson St. from 30th St. to Sutherland Ave. has been awarded to the REPUBLIC CONSTRUCTION CO.

Beloit, Wis.—(Official)—Bids will be received until 2 p.m., Apr. 8, by the Public Works Committee for improving a number of streets. B. E. Wood is City Clk. and R. R. Caldwell is City Engr.

Brocton, Ill.—(Official)—Bids will be received until 1 p.m., Apr. 12, at the office of the Town Clerk, Brocton, for road construction in Embarass Township, Edgar County.

Christopher, Ill.—(Official)—See item under "Water Supply—Irrigation."

English, Ill.—(Spring Grove post office)—An election will be held Apr. 6 at which the question of issuing $7500 in bonds for paving will be submitted to the voters.

+Moline, Ill.—The contract for paving in the 15th Ave. District has been awarded to A. E. RUTLEDGE, Rockford, Ill., at $71,127. Other bids were: J. F. McMahon, St. Louis, Mo., $73,141; McCarthy Improvement Co., Davenport, Ill., $73,456; Western Improvement Co., Racine, Wis., $75,814.

Ottawa, Ill.—The Commissioners of La Salle County have appropriated $50,000 for constructing hard roads.

Springfield, Ill.—(Official)—Bids will be received until 11 a.m., Apr. 7, by the State Highway Commission for State-Aid work in Kendall County, Section A, 7300 lin.ft. of concrete, estimated cost, $13,334, and Sangamon County, Section F, 1700 lin.ft. of brick, estimated cost, $5363.

Kaukauna, Wis.—Bids will be received until Apr. 5 by the City Clerk for improving a number of streets.

+Milwaukee, Wis.—(Official)—The contract for constructing the Beloit Rd. of the Milwaukee County highway system has been awarded to JENSEN & JENSEN, Chamber of Commerce Bldg., Chicago, Ill. Noted Mar. 18.

Milwaukee, Wis.—The Department of Public Works will receive bids until Apr. 6 for road oil of various grades as follows: Bid No. 1, 50,000 gal.; No. 2, 200,000 gal.; No. 3, 50,000 gal.; No. 4, 50,000 gal.

Milwaukee, Wis.—Bids will be received until Apr. 5 for asphalt paving with concrete foundation, and concrete curb, gutter and sidewalks, as follows: On 16th St., 20th Ave., Royall Pl., Greenfield Ave., Harrison Ave., Cleveland Ave., 49th St., and Sixth Ave.

Prairie du Chien, Wis.—(Official)—The date for receiving bids for constructing 9106 sq.yd. of permanent pavement on concrete foundation has been extended from Apr. 14 to Apr. 23. W. G. Kirchoffer, 31 Vroman Blk., Madison, is Engr. Noted Mar. 18.

+Richland Center, Wis.—A contract for constructing bitulithic pavement has been awarded to the BUTLER CONSTRUCTION CO., Waukesha, Wis., at approximately, $25,905.

+Burlington, Iowa—A contract for paving has been awarded to ELMER GOCHANOW, Muscatine, Iowa, at approximately $7980.

+Cedar Rapids, Iowa—Contracts have been awarded for paving as follows: Contract 1, to FORD PAVING CO., Cedar Rapids, at $17,898, for 9762 sq.yd. vitr. brick block on a 4-in. concrete foundation, on 16th and 8th Ave., 11th and 6th St. Contract 2, to FORD PAVING CO., Cedar Rapids, at $91,932, for vitrified brick block on a 6-in. foundation, with asphalt filler, to include 42,400 yd. of paving, 14,000 cu.yd. grading, 100 cu.yd. rock excavation and 100 cu.yd. of loose rock excavation. Contract 3, to WESTERN IMPROVEMENT CO., Racine, Wis., at $39,271, for asphaltic concrete, 2-in. wearing surface, granite chips, 4-in. foundation to include 25,200 sq.yd. paving, 8000 cu.yd. grading, 50 cu.yd. rock excavation and 50 cu.yd. loose rock excavation. Contract 4, to PERCY P. SMITH, Cedar Rapids, for curb and gutter, at $8015 for east side and $1990 for west side.

Clear Lake, Iowa—Press reports state that the City Council will soon receive bids for paving two miles of streets.

Des Moines, Iowa—The City Council contemplates improving a portion of Court Ave. Horace Susong is City Clk.

Duluth, Minn.—The City Council plans to pave Woodland Ave. with concrete, at an estimated cost of $22,890. John Wilson is City Engr.

Duluth, Minn.—(Official)—Bids will be received until 9.30 a.m., Apr. 3, by O. Halden, County Audr., for constructing approximately one mile of the Heino Rd.

Walker, Minn.—(Official)—Bids will be received until 2 p.m., Apr. 16, by C. D. Bacon, County Audr., of Cass County, for constructing state rural highways Nos. 81 and 83 in Cass County.

Ottawa, Kan.—(Official)—Bids will be received until 1 p.m., Apr. 8, by B. W. Harris, City Clk., for improving a portion of Seventh St.

Dundee, Neb.—(Official)—We are advised that the Village Council plans laying 40,000 sq.yd. of asphalt pavement during 1915. King Rohrbough Co., 316 McCague Bldg., Omaha, Neb., is Engr.

Bismarck, N. D.—Bids will be received until 2 p.m., Apr. 7, by T. E. Flaherty, Audr. of Burleigh County, for grading a road around Long Lake.

Jamestown, N. D.—Press reports state that bids will be received until Apr. 5 by the Auditor of Stutsman County for road work. The estimated cost of the work is $8000.

+Missoula, Mont.—The contract for paving Stevens Ave. with bitulithic has been awarded to J. C. MAGUIRE, Lewistown, at $28,771. Noted Mar. 4.

+Weston, Mo.—(Official)—A contract for constructing 8000 cu.yd. of bituminous pavement has been awarded to MALEY & KELLEY, Kansas City, Mo. Noted Mar. 25.

Corsicana, Tex.—According to press reports bonds for $75,000 have been sold, the proceeds of which will be used for constructing roads in District No. 3.

Longview, Tex.—At a recent election the citizens voted in favor of issuing $300,000 in bonds, the proceeds of which will be used for constructing roads.

Marshall, Tex.—Bids will be received until 2 p.m., Apr. 6, by the Commissioners Court of Harrison County for constructing approximately 20 miles of graveled and macadam highway in Road District No. 1. N. P. Turner is County Engr.

Port Lavaca, Tex.—An election will be held Apr. 5 to vote on the question of issuing $19,500 in bonds, the proceeds of which will be used for grading and graveling streets.

Post, Tex.—(Official)—We are advised that Garza County will spend $50,000 for the construction of dirt roads this year. Approximately $15,000 will be spent for bridge construction. The work will be done by day labor. J. M. Boren is County Judge.

Witchia Falls, Tex.—(Official)—The City Council contemplates an expenditure of $45,000 for paving. Noted Jan. 28 and Mar. 18.

+Durant, Okla.—A contract for constructing 17,600 sq.yd. waterbound macadam pavement, 8200 ft. of curb and gutter and 5000 cu.yd. of excavation and embankment has been awarded to AMMONS & BAUM, Durant, Okla., at $22,755.

Clifton, Ariz.—Bids will be received until 10 a.m., Apr. 5, by A. L. Terry, County Clk., for the sale of $150,000 in bonds, the proceeds of which will be used for constructing roads.

Everett, Wash.—Bids will be received until Apr. 5, by M. Weatherbee, County Audr., for grading 4200 lin.ft. of road between the Snoqualmie River and Bancroft and for constructing 8700 lin.ft. of Highway No. 12. Hans Mumm is County Engr.

Everett, Wash.—Bids were received Mar. 15 by the Commissioners of Snohomish County for constructing the Beverly Park Highway as follows: Atlas Construction Co., Everett, $13,716; Bancroft & Morgan, Everett, $16,803; Shepherd & Crossman, Everett, $16,890; Quigg Construction Co., Everett, $27,710; J. B. Snyder, Everett, $27,710. Noted Mar. 4.

+North Yakima, Wash.—The contract for paving South K St. has been awarded to the CASCADE CONSTRUCTION CO., at $8499.

Portland, Ore.—An election will be held Apr. 14 to vote on the question of issuing $1,250,000 in bonds, the proceeds of which will be used for constructing roads in Multnomah County.

Dunsmuir, Calif.—The city officials are considering the construction of a concrete roadway through the city on the route of the State highway. The estimated cost of the improvement is $25,000. George Malone is Mayor.

East San Diego, Calif.—Bids will be received by Orwell J. Early, City Clk., until 7:30 p.m., Apr. 5, for improving Hugo Ave. and cross streets.

Huntington Park, Calif.—Bids will be received until 5 p.m., Apr. 5, by W. H. Boss, City Clk., for improving Irvington Ave. from Pacific Blvd. to Passaic St.

Indio, Calif.—Press reports state that the City Council will spend about $35,000 for street improvement work.

Livermore, Calif.—At the election held Mar. 16, the citizens voted in favor of issuing $50,000 in bonds, the proceeds of which will be used for paving.

+Manhattan Beach, Calif.—The contract for improving 15th St. and three alleys has been awarded to the MODERN CONSTRUCTION CO., 1006 Wright & Callender Bldg., Los Angeles, at $14,251.

+Oroville, Calif.—(Official)—A contract for paving various streets has been awarded to the CLARK & HENERY CONSTRUCTION CO., Stockton, Calif., at $30,974. Other bids were: Federal Construction Co., $31,929; City Street Improvement Co., $35,951 Ransome Crummy Co., $38,600. Noted Mar. 18.

+Redwood City, Calif.—(Official)—Contracts have been awarded by the Supervisors of San Mateo County for constructing a road from Tunitas to San Gregorio to JAMES WILLIAMSON, Half Moon Bay, Calif., at $24,906 and from Colma to Half Moon Bay Road to the SPRING CONSTRUCTION CO., First National Bank Bldg., Berkeley, Calif., at $36,689. Noted Feb. 18.

San Gabriel, Calif.—W. A. Keep, Alhambra, Calif., at $9467, was the lowest bidder for improving Angelena St.

Ukiah, Calif.—Bids will be received until Apr. 6 by the Board of Supervisors of Mendocino County for constructing Section 2 of the Ten-Mile River Rd. and Section 3 of the Two Rivers and Covelo Rd. Hale McCowen is Clk. of the Bd.

+Ukiah, Calif.—The Board of Supervisors of Mendocino County has awarded a contract for road and bridge work near Ukiah to SALLINEN & SALLINEN, at $14,990.

Potton Springs, Que.—Bids will be received by J. N. Labell, Potton Springs, until Apr. 6, for paving a number of roads with stone and gravel.

Merritton, Ont.—Bids will be received about May 1 for the construction of macadam roads. The estimated cost is $10,000. Richard Clark is Clk.

INDUSTRIAL WORKS

✚Boston, Mass.—The contract for the construction of a one-story, 80x145-ft. reinforced-concrete addition to the plant of the Sturtevant Mill Co. has been awarded to the B. FRANK CONSTRUCTION CO., 217 Walnut St., Brookline. Estimated cost, $25,000.

✚Clinton, Mass.—The Clinton Wire Cloth Co. has awarded the contract for the construction of a one-story, 58x224-ft. brick factory to the FLINT BUILDING & CONSTRUCTION CO., Palmer. The estimated cost is $30,000. Noted Dec. 3.

✚Millbury, Mass.—G. M. JACQUES, North Main St. Worcester, has been awarded the contract for the construction of a two-story, 68x112-ft. storage building for the H. H. Hakes Mfg. Co.

✚Salem, Mass.—W. H. Gove, 254 Lafayette St., has awarded the contract for the construction of a four-story, 35x213-ft. storage building and factory to J. J. FLYNN & SON, 209 Essex St.

✚Providence, R. I.—The T. Y. CULLINAN CO. has been awarded the contract for the construction of a three-story, 62x105-ft. warehouse for the R. I. Supply & Engineering Co., West Exchange St.

Branford, Conn.—Plans are being prepared by Philip Sellers, Arch., New Haven, for the construction of a 181x210-ft. reinforced-concrete addition to the foundry of the Malleable Iron Fittings Co.

New Haven, Conn.—Plans are being prepared by Brown & Von Beren, Arch., Chamber of Commerce Bldg., for the construction of a two-story, 77x112-ft. concrete bakery at Canal and Gregory St. for Blanchard Bros.

✚Buffalo, N. Y.—The FERGUSON STEEL & IRON CO. has been awarded the contract for the construction of a 100x300-ft. reinforced-concrete manufacturing building at Churchill St. for the Curtiss Aëroplane Co. Estimated cost, $80,000.

Chadwicks, N. Y.—Bids will soon be received for the construction of a two-story, 106x168-ft. addition to the silk mill of the Standard Silk Co. W. Foster is Mgr.

✚Elba, N. Y.—JOHN LENNON SON & CO., Niagara Falls, has been awarded the contract for the construction of a 112x 261-ft. plant for the Elba Food Products Co., Inc. The estimated cost is $70,000.

✚New York, N. Y.—(Borough of Brooklyn)—JOHN AUER & SON, 648 Lexington Ave., has been awarded the contract for the construction of a four-story warehouse for Thomas Roulston, 100 Ninth St. Estimated cost, $48,000.

New York, N. Y.—(Borough of Manhattan)—The HELLMANN CONSTRUCTION CO., 160 East 66th St., has been awarded the contract for the construction of a four-story storage building for M. Crump. Estimated cost, $10,000.

✚Oriskany, N. Y.—GRIFFITHS & PIERCE, Utica, has been awarded the contract for the construction of a three-story, 92x147-ft. factory for H. Waterbury & Sons.

Rochester, N. Y.—Bids will soon be received by Foster & Grade, Arch., Sibley Bldg., for the construction of a five-story, 90x210-ft. warehouse for Brewster, Gordon & Co., 47 North Water St. Estimated cost, $130,000. Noted Feb. 4.

Harrisburg, Penn.—Plans are being prepared for the construction of a factory at Tenth and Market St. for M. L. Graupner & Sons. The estimated cost is $100,000.

New Castle, Penn.—The Grasselli Chemical Co. plans to construct an addition to its plant to consist of two buildings, one, 150x350 ft. and the other, 85x180 ft. Estimated cost, $200,000.

Philadelphia, Penn.—Bids will soon be received for the construction of a five-story, 30x150-ft. reinforced-concrete warehouse for Asam Bros. William Steele & Sons Co., 1600 Arch St., is Arch.

Pittsburgh, Penn.—The Carnegie Steel Co., Carnegie Bldg., plans to construct a plant. The estimated cost is $500,000. A. C. Dinky is Pres.

✚Pittsburgh, Penn.—The Ft. Pitt Hotel Co. has awarded the contract for the construction of a warehouse and laundry on Liberty Ave. to the HENRY SHENK CO. Estimated cost, $160,000. Noted Sept. 3.

Pittsburgh, Penn.—(Official)—Work will be started about Apr. 10 for the construction of a seven-story, 60x110-ft. reinforced-concrete warehouse for the P. H. Butler Co., 1205 Liberty Ave. Hunting & Davis, Century Bldg., is Arch. Estimated cost, $85,000.

✚Baltimore, Md.—The Baltimore Plumbing Supply Co. has awarded the contract for the construction of a three-story, 48x75-ft. warehouse at Central and Fairmount Ave. to the FIDELITY CONSTRUCTION CO. The estimated cost is $10,000.

Morgantown, W. Va.—The Greer Limestone Co. plans to construct a limestone crushing plant. The estimated cost is $25,000. H. C. Greer is Pres.

Birmingham, Ala.—Frank A. Dudley and associates contemplate the construction of a plant for the manufacture of cotton goods. The estimated cost is $500,000.

✚Cincinnati, Ohio—The FERRO CONCRETE CONSTRUCTION CO., Richmond and Harriet St., has been awarded the general contract for the construction of a five-story, 43x150-ft. warehouse and a three-story, 105x115-ft. feed mill for Early & Daniel Co. Estimated cost, $90,000. Noted Oct. 29.

✚Cleveland, Ohio—The contract for the construction of a two-story addition to the plant of the Haserot Canneries Co., 413 Huron Rd., has been awarded to the C. W. GRIFFIN CO. Estimated cost, $15,000.

Cleveland, Ohio—Plans are being prepared for the construction of a six-story warehouse at Lakeside Ave. and East 22d St. for Fisher Bros., 1303 West Ninth St. Estimated cost, $150,000.

✚Cleveland, Ohio—The contract for the construction of a factory on East 131st St., for the Elyria Iron & Steel Co., Elyria, has been awarded to the PITT CONSTRUCTION CO. Estimated cost, $75,000. Noted Mar. 4.

✚Cleveland, Ohio—The Lake Erie Smelting & Refining Co., 7800 Bessemer Ave., has awarded the contract for the construction of a metallurgical and refining plant to DUCHON BROS., 6304 Hawthorne Ave. Noted Feb. 18.

Cleveland, Ohio—The Leisy Brewing Co., 3320 Vega Ave., plans to construct a four-story addition to its cold-storage plant, and also a warehouse. The estimated cost is $60,000.

Delaware, Ohio—Bid will soon be received for the construction of a four-story, 60x100-ft. concrete warehouse for the V. T. Hills Co. W. R. Powell, Hippodrome Bldg., Cleveland, is Arch.

Fostoria, Ohio—Plans are being prepared for the construction of plant for the Seneca Wire Mfg. Co. The estimated cost is $20,000.

Toledo, Ohio—Plans have been prepared by M. Stophlet, Arch., 606 Nasby Bldg., for the construction of a seven-story storage warehouse at Speilbusch Ave. and State St. for the Scheiwe Storage Co., 645 Ohio Bldg. Noted Jan. 28.

Youngstown, Ohio—Plans have been prepared for the construction of a four-story reinforced-concrete garage for Pfau & Faunce, 36 Pyatt St. Estimated cost, $50,000.

Chicago, Ill.—Bids will be received until Apr. 7, by Graham, Burnham & Co., Arch., 80 East Jackson Blvd., for the construction of a six-story, 64.6x109.8-ft. factory for John F. Jelke, 759 South Washtenaw Ave.

Chicago, Ill.—Plans are being prepared by J. E. Pridmore, Arch., 38 South Dearborn St., for the construction of a four-story factory for the Martin-Senour Co., Quarry St. Estimated cost, $15,000.

✚Chicago, Ill.—PETER OLSON CO., 19 South La Salle St., has been awarded the general contract for the construction of a five-story, 50x100-ft. storage warehouse for the M. Polsen Express & Van Co., 3414 Sheffield Ave. The estimated cost is $40,000.

New Athens, Ill.—Bids are being received for the construction of a two-story, 60x100-ft. warehouse for the Auto Stove Co. Riester & Rubach, 414 Missouri Ave., East St. Louis, is Arch.

Milwaukee, Wis.—The Northwestern Barrel Co. plans to rebuild its plant which was recently destroyed by fire. Estimated cost, $25,000.

South Kaukauna, Wis.—The Thilmany Pulp & Paper Co., plans to construct a 72x220-ft. addition to its plant. H. L. Seholl is Supt.

Sioux City, Iowa—According to press reports, plans are being prepared for the construction of a concrete addition to the packing plant of R. Hurni, 527 South Chambers St. The estimated cost is $50,000.

Minneapolis, Minn.—The Minnesota Fibre Bottle Co. plans to construct a three-story factory at 65 22d St., N. E. Estimated cost, $30,000.

✚St. Paul, Minn.—The contract for the construction of a three-story, concrete warehouse for the Christian Hanson Realty Co. has been awarded to the PAUL STEENBURG CONSTRUCTION CO. Estimated cost, $60,000.

Topeka, Kan.—Plans are being prepared by L. M. Wood, Arch., for the construction of a three-story, 50x130-ft. factory for Rehkopf Bros., 209 West Sixth Ave. Estimated cost, $15,000.

Lincoln, Neb.—The Lincoln Transfer & Storage Co. contemplates the construction of a 100x120-ft. warehouse at Tenth and U St. The estimated cost is $15,000.

Omaha, Neb.—Bids are being received by G. B. Prinz, Arch., 1033 Omaha National Bank Bldg., for the construction of a three-story, 62x132-ft. warehouse and factory for L. G. Doup, 1301 Nicholas St. Estimated cost, $60,000.

✚Kansas City, Mo.—MOSBY & GOODRICH has been awarded the contract for the construction of a five-story reinforced-concrete building for the Lechtman Printing Co. Estimated cost, $50,000. Noted May 21.

St. Louis, Mo.—Bids are being received by F. C. Bonsack, Arch., 815 Pierce Bldg., for the construction of a one-story, 50x125-ft. warehouse for the Columbia Transfer Co. The estimated cost is $25,000.

Marysvale, Utah—According to press reports, the Armour Packing Co. plans to construct a plant for the manufacture of potash. Estimated cost, $3,000,000. J. Ogden Armour is interested.

Salt Lake City, Utah—It is reported that the Knight Sugar Co. will build a factory, estimated to cost $455,000. E. F. Dyer is interested.

Portland, Ore.—Plans are being prepared by Root & Kerr, Arch., for the construction of a 90x140-ft. warehouse for the Portland Flouring Mills. Estimated cost, $20,000.

✚Armona, Calif.—The Kings County Packing Co. has awarded the contract for the construction of a two-story packing plant to TREWHITT & SHIELDS, Fresno, at $20,300. Noted Mar. 18.

✚East San Pedro, Calif.—The Southern California Fish Co. has awarded the contract to M. CHRISTENSEN, 1238 Pacific Ave., San Pedro, for the construction of a 70x235-ft. packing plant and a 65x150-ft. warehouse. Estimated cost, $25,000. Noted Mar. 4.

FEDERAL GOVERNMENT WORK

Vault—New York, N. Y.—(Borough of Manhattan)—Bids were received Mar. 25 by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a vault in the Appraiser's Warehouse, as follows: C. L. Dooley, Inc., New York (Borough of Brooklyn), $19,990; Concord Construction Co., New York (Borough of Brooklyn), $13,717; York Safe & Lock Co., York, Penn., $16,544; Neptune B. Smyth, New York, $16,421; Howard H. Peterson Co., New York, $15,800; Charles Meads & Co., New York, $14,420; C. H. & R. C. Peckworth, New York, $14,685; R. H. Casey, New York, $18,577; North Eastern Construction Co., New York, $13,998.

✚Steel Tanks—New York, N. Y.—The contract for furnishing at the manufacturers' plant, 20 steel tanks has been awarded to ROBERT S. HALL, Warren, Penn., at $6520. Noted Mar. 18.

★Storehouses and Boat Shed—New York, N. Y.—Bids will be received until noon, Apr. 26, by Col. W. M. Black, Army Bldg., 39 Whitehall St., for constructing storehouses and a boat shed on Mill Rock at Hell Gate in East River.

Building—Philadelphia, Penn.—Bids will be received un 2 p.m., Apr. 12, by the Commanding Officer, Frankford Arsenal, for the construction of two one-story brick and reinforced-concrete buildings, for one lumber shed extension and for one double action press shop extension.

★Stone and Riprap—Philadelphia, Penn.—The following are the bids for furnishing and depositing 1000 tons of broken stone and 2100 tons of riprap at the Brandywine Shoal Light Station, Delaware Bay: Coast & Lakes Contracting Corporation, New York, $8959; C. R. Simpson, New York, $11,253; Interstate Construction Co., New York, $12,586. Noted Feb. 25.

Coal-Handling Plant—Philadelphia, Penn.—Bids were received for installing a coal- and ash-handling plant in the Mint Bldg., Philadelphia, as follows: Arthur G. McKee, Cleveland, Ohio, $13,150; Guarantee Construction Co., New York, $13,380; Link-Belt Co., Philadelphia, $12,770; R. H. Beaumont Co., Philadelphia, $14,170; Deverell Spencer & Co., Baltimore, Md., $10,840.

Post Office—Smyrna, Del.—Bids were received for the construction of a post office at Smyrna, (a) using limestone except where granite is specified, (b) using sandstone except where granite is specified as follows: James A. Hirons, Dover, Del., (a) $29,325, (b) $29,325; A. H. Jones, Wilmington, Del., (a) $27,776, (b) $27,876; Daniel J. McNamee, Philadelphia, Penn., (a) $28,477; W. E. Mooney, Washington, D. C., (a) $32,779, (b) $32,779; Olin Gerlach, Frostburg, Md., (a) $30,640, (b) $30,750; William H. Fissell & Co., New York, (a) $29,400, (b) $29,900; Potters' Lumber Co., East Liverpool, Ohio, (a) $25,832, (b) $26,000; Thomas W. Cissell, Wooster, Ohio, (a) $33,000, (b) $33,250; J. S. Rogers Co., Moorestown, N. J., (a) $33,900, (b) $34,030; Conners Bros. Co., New York, (a) $29,964, (b) $30,200. Noted Feb. 8.

Storehouse—Wilmington, Del.—Bids will be received until Apr. 7 by Maj. E. N. Johnston, Wilmington, for the construction of a storehouse.

Buildings—Indianhead, Md.—Bids will be received until 11 a.m., Apr. 17, by H. R. Stanford, Chief, Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of two cotton storehouses.

✚Grading—Washington, D. C.—The contract for grading about 30,000 cu.yd. in the District of Columbia has been awarded to WARREN F. BRENIZER CO., Washington, D. C., at 22c. per cu.yd. Noted Mar. 11 and 18.

Broken Stone and Trap Rock—Washington, D. C.—Bids will be received until 2 p.m., Apr. 5, by the District Commissioners for furnishing and delivering broken stone and for quarrying and crushing trap rock. Oliver P. Newman, District Bldg., is one of the Comrs.

★Service Boat—Wheeling, Va.—Bids will be received until 11 a.m., Apr. 29, by Maj. T. H. Jackson, U. S. Engineer Office, for furnishing and delivering one service boat designated No. 10A3.

Building—Wilmington, N. C.—Bids will be received until 3 p.m., Apr. 19, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a two-story frame building at the marine hospital.

Dredging—Charleston, S. C.—The following are the bids received for dredging in Ashley River: Globe Dredging Co., Savannah, Ga., $10,340; Atlantic, Gulf & Pacific Co., New York, N. Y., $9009; Ely Dredging & Construction Co., Savannah, Ga., $9570; Simons-Mayrant Co., Charleston, S. C., $6737. Noted Feb. 18.

★Coal—New Orleans, La.—Bids will be received until 11 a.m., May 3, by Maj. Edward H. Schulz, Custom House, for furnishing coal for the U. S. plant from July 1 to June 30, 1916.

Dam Construction—Marietta, Ohio—Bids will be received until 10 a.m., Apr. 26, by Lieut. Col. H. Jervey, Dist. Engr. Office, Custom House, Cincinnati, Ohio, for reconstructing, in concrete, the top of Dam No. 4, Muskingum River, at Devols Station, on the Baltimore & Ohio Ry., about 5¾ miles north of Marietta.

✚Fir Timber—Michigan—The contract for furnishing fir timber for river and harbor work at Ontonagon, Grand Marais and Keeweenaw Point, has been awarded to the WOODRUFF LUMBER CO., Duluth, Minn., at $6215. Noted Mar. 18.

Repairing Post Office and Court House—Des Moines, Iowa—Bids have been received for alterations in the post office at Des Moines, as follows: James Maine & Sons Co., $53,975; Newport Contracting & Engineering Co., Newport News, Va., $36,628; Grohne Contracting Co., Joliet, Ill., $32,400; Charles Wertz Sons, $35,750; Benson & Marxer, $39,975; Frank M. Weakley, Canton, Ohio, $40,914; Arthur H. Neumann, $37,524; Frank H. Latimer & Co., Kansas City, Mo., $36,688; J. E. Tusant & Son, $43,150; J. C. Mardes Co., $36,900; William Knudson & Son, $37,350. Above bidders are of Des Moines unless otherwise specified. Noted Feb. 18.

Buildings, Etc.—Choctaw, Okla.—Bids will be received until 2 p.m., Apr. 28, by Cato Sells, Comr., Dept. of the Interior, Office of Indian Affairs, Washington, D. C., for the construction of a frame hospital, quarters, laundry, lavatory, power house, camp quarters, water and sewer systems and electric-lighting plant.

✚Post Office—Lawton, Okla.—The contract for the construction of a post office at Lawton has been awarded to R. S. MOORE, Lafayette, Ind., at $128,242. Noted Jan. 7 and Mar. 18.

✚★Excavation, Etc.—Payson City, Utah—The following are the bids received for construction, involving excavation, concrete work, etc., in connection with Division 6, High Line Canal, Strawberry Valley Project. SPANISH FORK GRADING CO., Spanish Fork, Utah, $22,196 (awarded contract); Ryberg Bros., Logan, Utah, $22,615; Lewis J. Whitney, Springville, Utah, $22,795; Heuser & Sim, Salt Lake City, Utah, $24,358; O. L. Hedenberg, William F. Olsen, and A. T. Gee, Provo, Utah, $24,378; Wasatch Grading Co., Salt Lake City, Utah, $24,797; H. G. Gilkerson, Salt Lake City, $25,431; Messmer & Rice, Los Angeles, Calif. $28,082. Noted Feb. 18.

Buildings—Tucson, Ariz.—The following are the bids received for the construction of three combination adobe school buildings at Indian Oasis, Ventana and Comobabi Indian villages: F. J. Odermatt Co., Tucson, Ariz., $14,126 for each building; J. W. Tucker, Phœnix, Ariz., total, $32,500; W. D. Lovell, Minneapolis, Minn., $41,500; C. H. Odam, Phœnix, Ariz., $22,100; Chute & Heller, Tucson, Ariz., $14,000 for each building. Noted Mar. 4.

★Pumping Plant—Seattle, Wash.—The following are the bids received for furnishing a pumping plant for the Lake Washington Canal Locks: R. D. Wood & Co., Philadelphia, Penn., $29,076; Hans Pederson, Seattle, Wash., $31,774; United Iron Works, Oakland, Calif., $35,506; Allis-Chalmers Mfg. Co., Milwaukee, Wis., $35,697; Charles C. Moore & Co., San Francisco, Calif., $39,609; Seattle Construction & Dry Dock Co., Seattle, $43,517. Noted Feb. 11.

Post Office—Pendleton, Ore.—Bids were received for the construction of a post office at Pendleton, (a) using limestone except where granite is specified, (b) using sandstone except where granite is specified, as follows: Alloway & George, Spokane, Wash., (a) $108,369, (b) $108,269; King Lumber Co., Charlottesville, Va., (a) $104,000, (b) $104,000; Dieter & Wenzel Construction Co., Wichita, Kan., (a) $97,983; J. B. Sweatt, Spokane, Wash., (a) $106,337, (b) $106,300; Welch Bros. & Hanneman, Grass Valley, Calif., (a) $92,219, (b) $92,219; Palmberg & Mattson, Astoria, Ore., (a) $99,870, (b) $99,870; Erickson & Larson, Seattle, Wash., (a) $95,226, (b) $95,042; George A. Whitmeyer & Sons, Ogden, Utah, (a) $105,624; Eugene Schuler, Pasadena, Calif., (a) $120,000, (b) $120,000; Olsen & Johnson Co., Missoula, Mont., (a) $87,445, (b) $87,620; Sound Construction & Engineering Co., Seattle, Wash., (a) $92,362, (b) $87,620; John Almeter, Portland, Ore., (a) $92,548, (b) $92,520; Booker, Kiehl & Whipple, Seattle, Wash., (a) $121,422, (b) $121,422; James E. Winters, Portland, Ore., (a) $84,487, (b) $84,387. Noted Jan. 21.

✚Foundations—Pearl Harbor, Hawaii—The concrete foundation for three 600-ft. steel radio towers at Pearl Harbor, will be constructed by the SPAULDING CONSTRUCTION CO., Rialto Bldg., San Francisco, Calif., at $8187. Noted Mar. 4.

MISCELLANEOUS

Seawall—Scituate, Mass.—Bids will be received until Apr. 8 by the State Harbor and Land Commission, Boston, for the construction of a concrete seawall between the first and second cliffs at Scituate. William F. Williams is Ch. Engr.

Channel Construction—Waterbury, Conn.—Bids will be received until 8 p.m., Apr. 14, by William H. Moher, City Clk., for the construction of a 300-ft. masonry channel for Great Brook, seven ft. deep and ten ft. wide, having a reinforced-concrete slab top. Robert A. Cairns, 7 Leavenworth St., is City Engr.

★Barn and Vegetable Cellar—Bath, N. Y.—(Official)—Bids will be received until 11 a.m., Apr. 12, by Hon. Joseph A. Goulden, Pres., Bd. of Mgrs., N. Y. State Soldier's and Sailor's Home, Bath, N. Y., for the construction of a barn and vegetable cellar.

Retaining Wall—Buffalo, N. Y.—The Board of Aldermen has ordered a bond issue of $320,000 for the construction of retaining walls along Bird Island pier and from Georgia to Jersey St.

Guard Walls— New York, N. Y.—(Official)—See item under "Water Supply-Irrigation."

Motor Trucks—New York, N. Y.—(Borough of Manhattan)—(Official)—The following bids were received for furnishing nine 1½-ton motor trucks complete to the Department of Water Supply, Gas and Electricity: Poertner Motor Car Co., 1759 Broadway, New York, $14,265; Monohan Express Co., $15,615; Croce Auto Co., $15,782; Apto Car Sales Co., $15,810; John E. Lloyd, $15,975; Reo Motor Car Co., $16,644; John W. Boyle, $17,586; White Co., $25,875. Noted Mar. 18.

Subway—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 12:15 p.m., Apr. 9, by the Public Service Commission, 154 Nassau St., for the construction of Section 4, Routes Nos. 4 and 36, a part of the Broadway-Fourth Ave. Rapid Transit R.R.

Subway—New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 12:15 p.m., Apr. 20, by the Public Service Commission, 154 Nassau St., for the construction of Section No. 2 of Route No. 12, a part of the Eastern Parkway Rapid Transit R.R.

Steel Grandstands—New York, N. Y.—(Borough of Queens)—Press reports state that the West Side Tennis Club, Forest Hills, will erect steel grandstands around the championship courts.

Broken Stone and Screenings—New York, N. Y.—(Borough of Queens)—(Official)—The following bids were received, Mar. 24, by the Bureau of Highways for furnishing 25,000 cu.yd. of broken stone and screenings: New York Trap Rock Co., 17 Battery Pl., New York, $1.795 per cu.yd.; Charles A. Meyers Contracting Co., $1.89; Frederick Starr Contracting Co., $1.979; Borough Asphalt Co., $1.98; Peace Bros., $2.10; H. J. Mullen Contracting Co., $2.40

Pier—Sag Harbor, N. Y.—Press reports state that the E. W. Bliss Co., Brooklyn, N. Y., is negotiating with the Long Island R.R. for a lease of waterfront at either Main or Division St. for a site for the construction of a pier with an assembling shed and machine shop. The company maintains a proving and experimental station at this point for trials of Whitehead and Bliss-Leavitt torpedoes.

Fire and Police Alarm Systems—Troy, N. Y.—The city plans to install new fire and police signal systems as soon as the proper type can be decided upon. Several companies will be asked to give demonstrations. The estimated cost including central station is $100,000.

✚★Excavator—Atlantic City, N. J.—The contract for furnishing a drag line or slack line excavator, capacity 800 cu.yd. per day, for use at the Doughty Pond, has been awarded to the INSLEY MFG. CO., Philadelphia, Penn., at $20,500. Noted Feb. 25.

Motor Fire Apparatus—Camden, N. J.—Press reports state that the Finance Committee has recommended the bond issue of $100,000 for the purchase of motor fire apparatus. Noted Jan. 21 and Feb. 4.

★Boardwalk Repairs and Beach Protection—Cape May, N. J.—The four lowest bids received Mar. 11 for constructing additional boardwalks, bulkheads and beach protection were as follows: Atlantic Construction Supply Co., Atlantic City, $55,489; Cantrell Construction Co., Camden, $55,505; Pugh & Hubbard, $58,309; C. R. Simpson, Huntington, Penn., $58,840. L. E. Miller, Jr., is City Engr. Noted Mar. 18.

✚Dike and Sluice Gates—Elizabeth, N. J.—The Union County Mosquito Extermination Commission has awarded the contract for the construction of about one mile of dike in the Elizabeth meadows to the UNITED STATES DRAINAGE & IRRIGATION CO., 17 Battery Pl., New York.

Police Apparatus—Jersey City, N. J.—(Official)—Bids will be received until 2 p.m., Apr. 8 by the Board of Commissioners of Jersey City for automobile patrol wagons for the police department. M. I. Fagen is City Clk.

Motor Fire Apparatus—Jersey City, N. J.—(Official)—Bids will be received until 2 p.m., Apr. 8, by the Board of Commissioners for five or more gasoline tractors for the fire department. M. I. Fagen is City Clk.

Comfort Station—North Bergen, N. J.—(Official)—Bids will be received until 2 p.m., Apr. 6, by the Board of Hudson County Park Commissioners, No. 1 Exchange Pl., Jersey City, for constructing a shelter and public comfort station at North Hudson Park, North Bergen, N. J.

Conduit—Wilkes-Barre, Penn.—The lowest bid received for the installation of underground conduit for police and fire alarm systems was that of the Star Electric Co., at $21,328.

Levee—Augusta, Ga.—Plans are being prepared by Nisbit Wingfield, City Engr., for the construction of a section of levee, about seven miles, between the Charleston & West Carolina Ry. and Sand Bar Ferry. Noted Mar. 18.

✚Drainage—Davenport, Fla.—The Davenport Drainage District has awarded the contract for the construction of 7½ miles of 14- to 22-ft. main canal to W. B. WILLIAMS, Ovieda, Fla. In connection with the same work bids will be received at a later date for the construction of 35 miles of laterals. The total estimated cost is $65,000.

Wharves—Jacksonville, Fla.—The lowest bid received by the Board of Port Commissioners for the construction of timber marginal wharves at the Municipal Terminal was that of W. E. Parker, Tampa, at $13,177. Noted Mar. 18.

Drainage—Kissimmee, Fla.—The Taft Drainage District, J. D. Clark, Pres., will construct three main canals and 10 laterals for draining 45,000 acres in the southern part of Orange County. The estimated cost is $80,000. R. H. Ludlam, Kissimmee, is Ch. Engr.

Drainage—Jennings, La.—Bids will be received until Apr. 7 by Charles E. Eiber, Secy., Grand Marais Sub-Drainage District A, for dredging about 25 miles of main canals and laterals. Frank Shutts is Engr.

Pumping Station Additions—New Orleans, La.—The Sewerage & Water Board is receiving bids for the construction of additions to Drainage Pumping Station No. 2. Specifications on application to F. S. Shields, Secy.

Wharf—New Orleans, La.—The Port Commissioners, New Orleans Court Bldg., will receive bids until Apr. 7 for the construction of a pile and timber wharf on the east bank of the Mississippi River between Soniat and Bellecastle St. Ford Bacon & Davis, 921 Canal St. is Engr.

Drainage—Union City, Tenn.—Bids will be received until Apr. 12 by J. A. Coble, Secy., Obion River Drainage District, for the construction of about 1,600,000 cu-yd. of levee work with floating dredge; about 631,700 cu.yd. of ditch work with floating dredge; three reinforced-concrete sluiceways; also clearing 500 acres of right of way.

✚Ditch—Booneville, Ind.—The contract for the construction of the Homer E. Totten ditch has been awarded to JOHN H. BLAIR, at $24,250.

Dock and Comfort Station—Detroit, Mich.—The annual budget includes appropriations of $33,500 and $20,000 for the construction of a dock at the foot of West St. and a comfort station in Capitol Park.

✚Drainage—Hart, Mich.—The Commissioners of Oceana and Newaygo Counties have awarded the contract for drainage work in Leavitt and Beaver townships to the BEACH MFG. CO., at $13,000.

✚Ditch—Grand Rapids, Wis.—The Woods County Drainage District Commissioners have awarded the contract for the construction of 17½ miles of ditches to GILMORE BROS., Toledo, Ohio, at 6.94c. per cu.yd.

Levee and Retaining Wall—Muscatine, Iowa—The City Council and the Levee Commission plan to construct a paved sloping levee with a retaining wall. The estimated cost is $15,000. C. H. Young is City Engr.

✚Ditch—Olivia, Minn.—The contract for the construction of County Ditch No. 57 has been awarded to KIRCHNER BROS., St. Paul, at $13,990. Noted Mar. 11.

✚Ditch—Owatonna, Minn.—The contract for the construction of Judicial Ditch No. 2 has been awarded to the CLARK CONSTRUCTION CO., Clinton, Iowa. The work calls for about 250,000 cu.yd. of excavation. George A. Ralph, St. Paul, is Engr. Noted Mar. 4.

Park Work—Mitchell, S. D.—The Park Board has engaged A. R. Nichols, Landscape, Arch., Minneapolis, Minn., to prepare plans for the contemplated park and boulevard system.

Stock Yards Improvements—Kansas City, Mo.—The Kansas City Stock Yards Co., Kansas City, Mo., plans to extend, improve and rebuild its yards in this city. The estimated cost is $2,500,000.

✚Drainage—Osceola, Ark.—The Commissioners of Drainage District No. 9, Mississippi County, have awarded the contract to CATCHINGS & CO., Roseland, Ark., at 18.05c. per cu.yd. for 6700 cu.yd. of levee embankment and at 23.15c. per cu.yd. for 9000 cu.yd. of excavation. The work is located about 13 miles Southwest of Blytheville. The Morgan Engineering Co., Memphis, Tenn., is Engr. Noted Mar. 18.

✚Wharves—Beaumont, Tex.—The contract for the construction of 1000 ft. of concrete wharves for the Magnolia Petroleum Co. has been awarded to SPENCE & HOWE, Port Arthur, Tex. The estimated cost is $100,000. Noted Mar. 25.

Drainage—Cordele, Tex.—Press reports state that a contract will be awarded about June 10 for the construction of about 80 miles of ditches, involving 268,000 cu.yd. of excavation. Plans have already been prepared but the drainage commissioners have not been appointed. The estimated cost is $45,000. W. C. Youngs, Edna, Tex., is Engr. Noted Mar. 11.

Drainage—Roswell, N. M.—Plans and specifications have been prepared and work will begin as soon as bonds are authorized and issued for draining 54,000 acres in Chauves County. In November the county was divided into four drainage districts. H. W. Vaushelet is Engr. Noted Nov. 26.

Drainage District—Corinne, Utah—The Corinne Drainage District has been created and plans will soon be prepared for draining and reclaiming about 10,000 acres of land. W. M. Bostaph, Ogden, is Ch. Engr.

Retaining Wall—Salt Lake City, Utah—(Official)—Bids will be received until Apr. 6 by the Board of Commissioners for the construction of a reinforced-concrete retaining wall at Third S. and 11th E. St. Plans are on file at the office of the city engineer.

Seawall—Seattle, Wash.—According to press reports plans have been approved for the construction of a seawall along Railroad Ave. The estimated cost is $150,000.

Waterway—Tacoma, Wash.—Press reports state that the construction of the Hylebos Creek waterway is being delayed by friendly litigation designed to establish the rights of the commissioners to do certain work. The lines of the waterway have been established and surveys completed. L. A. Nicholson is Engr.

✚Dredge Equipment—Portland, Ore.—The Port of Portland Commission has awarded the contract for the installation of two boilers in the dredge Columbia to the BALLIN WATER TUBE BOILER CO., at $26,875.

✚Dock—Portland, Ore.—The contract for the construction of a 40-ft. uncovered dock in connection with West Side dock No. 1 has been awarded to the BRAYTON ENGINEERING CO., at $17,575.

Levee District—Colusa, Calif.—A bill has been introduced in the state legislature requesting the creation of a levee district in Colusa and Yolo Counties for protecting 129,000 acres from the overflow of the Sacramento River. The frontage to be protected is about 62 miles.

✚Dredging—Los Angeles, Calif.—The contract for dredging areas A, B, C and D, Los Angeles Harbor, has been awarded to S. G. HINDES, San Francisco, at $128,658. Noted Jan. 14.

Salt Water Fire Protection System—Oakland, Calif.—Plans have been prepared for additions to the auxiliary salt water fire protection system to cost $30,000. Frank M. Smith is City Clk.

Pleasure Pier—Redondo, Calif.—At an election held Mar. 11 the citizens voted favorably on the proposition to issue $121,000 in bonds for the erection of a municipal pleasure pier. Noted Feb. 25.

Drainage—Greenfield, Ont.—Bids will be received until Apr. 10 by J. D. Cameron, Township Clk., for the construction of the River Baudette drain. This work will require about 56,000 cu.yd. of excavation. Magwood & Stidwell, Cornwall, is Engr.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Claremont, N. H.—Plans are being prepared by Brainerd & Leeds, Arch., 89 Franklin St., Boston, Mass., for the construction of the two-story Spaulding High School. Estimated cost, $65,000.

Allston, Mass.—Plans are being prepared by A. J. Carpenter, Jr., Arch., 39 Dunreath St., Boston, for the construction of a seven-story, 200x200-ft. building for the students of the New England Conservatory of Music, 1316 Beacon St., Brookline. Estimated cost, $800,000. R. M. Floyd is Chn.

Amherst, Mass.—An appropriation of $90,000 has been made by the School Board for the construction of a high school. Herbert S. Carruth, George B. Churchill and Cady R. Elder are members of Bldg. Comn.

✚Boston, Mass.—The contract for the construction of the Boston Industrial School for Boys has been awarded to WHITON HAYNES, at $272,000 (item 1), and $271,000 (item 2). Richard A. Lynch is Supt. of Pub. Bldgs.

Boston, Mass.—Work will be started about May 1 on the construction of a theater at Washington St. and Hamilton Pl. to be under the management of Loew's Boston Theaters, Inc. The estimated cost is $400,000.

Boston, Mass.—Plans have been prepared by G. Henri Desmond, Arch., 15 Beacon St., for the construction of a theater at Hyde Sq., West Roxbury District. The estimated cost is $100,000.

Boston, Mass.—John Craig of the Craig Players plans to construct a $500,000 theater at Boylston and Ipswich St. G. Henri Desmond, 15 Beacon St., is Arch.

Boston, Mass.—The School Committee contemplates the construction of a police and school administration building on the site of the Probate Court Bldg. Estimated cost, $150,000.

Cambridge, Mass.—Plans have been prepared by Edward T. P. Graham, Arch., for the construction of a group of buildings for the Cambridge City Hospital on Cambridge St. in the Dana Hill Section. The group includes a main building, a "U" shaped building and power house.

Chicopee, Mass.—George E. Haynes, Arch., Pittsfield, has been retained by the Board of Education to prepare plans for the construction of an addition to the high school. The estimated cost is $75,000.

Lawrence, Mass.—Construction will soon begin on the grammar school at Haverhill and Oak St. The estimated cost is $250,000. James E. Allen, 283 Essex St., is Arch. Noted Feb. 4.

Lynn, Mass.—Harry Hunt is interested in the construction of a seven-story hotel on Mt. Vernon St. The estimated cost is $250,000.

New Bedford, Mass.—Plans are being prepared by the J. M. & C. J. Buckley Co., 164 Federal St., Boston, and the J. W. Bishop Co., 683 Atlantic Ave., Boston, for the construction of a motion picture theater for Gordon & Shoolman. The estimated cost is $150,000.

+Salem, Mass.—Press reports state that the contract for the construction of a Masonic Temple has been awarded to GEORGE BAKER LONG, State Mutual Bldg. Estimated cost, $150,000. Noted Oct. 29 and Feb. 4.

Southbridge, Mass.—Plans have been prepared by Peabody & Stearns, Arch., 53 State St., Boston, Mass., for the construction of a high school. Noted Oct. 29.

Swampscott, Mass.—The School Board plans to remodel the high school at Swampscott. Estimated cost, $47,000. Daniel F. Knowlton is interested.

Watertown, Mass.—Plans are being prepared for the construction of a school on Arlington St. The estimated cost is $73,000.

+Webster, Mass.—The contract for the construction of a one-story, 55x120-ft. motion picture theater for H. J. Steinberg, Old South Bldg., Boston, has been awarded to the TORRINGTON BUILDING CO., 197 Water St., Torrington, Conn. Estimated cost, $40,000.

Worcester, Mass.—Plans are being prepared by O. E. Naul, Arch., 8 Wall St., for the construction of a 12-room school on Orange St. for the Notre Dame Parish.

Wallum Lake, R. I.—The Legislature is considering a bill providing for the construction of the Rhode Island State Tuberculosis Hospital. The Board of Control and Supply will be in charge of the work.

Woonsocket, R. I.—The B. P. O. E. contemplates the construction of a club building on Main St. Estimated cost, $70,000.

+Bristol, Conn.—(Official)—The general contract for the construction of a fireproof graded school on Maple St. for District No. 1 has been awarded to WISE & UPSON, Hartford, at $62,835. Noted Jan. 21, Mar. 4 and 25.

Hartford, Conn.—Plans are being prepared by Russell F. Barker, Arch., 43 Ann St., for the construction of a two-story, 70x380-ft. municipal market.

Albany, N. Y.—Bids will soon be received for remodeling the State House into a Court House. The estimated cost is $100,000. Lewis F. Pilcher, Capitol, is State Arch.

+Buffalo, N. Y.—The contract for the construction of a two-story, 54x137-ft. building at Seventh and Maryland St. for the Holy Cross Church has been awarded to JOSEPH G. BELLANCES. Estimated cost, $40,000.

+Newark, N. Y.—(Official)—O. E. SCHUMAN, Newark, at $43,516, has been awarded the contract for the construction of cottages at the New York State Custodial Asylum for Feeble-Minded Women. Ethan A. Nevin is Supt. Noted Mar. 25.

+Newark, N. Y.—(Official)—The contract for the construction of a building at the New York State Custodial Asylum for Feeble-Minded Women has been awarded to AUSTIN W. SUMMERS, Buffalo, at $40,498. Ethan A. Nevin is Supt. Noted Feb. 11 and Mar. 25.

New York, N. Y.—(Borough of Manhattan)—Bids will be received about Apr. 10 for the construction of a ten-story, 100x100-ft. Y. W. C. A. building. Henry C. Meyer, Jr., 101 Park Ave, is Mech. Engr. Noted Mar. 18.

New York, N. Y.—(Borough of Manhattan)—The Campaign Executive Committee of the Newsboys Home Club, 11th St. and Second Ave., plans to construct a $250,000 building. William Shillaber, Jr., is Temporary Chn. and Emil M. Scholz is Secy.

Schenectady, N. Y.—Plans are being prepared for the construction of a Masonic Temple on State St. The estimated cost is $150,000.

Utica, N. Y.—Plans are being prepared by E. A. Howard, Arch., Bastable Blk., Syracuse, for the construction of a theater for the Alhambra Amusement Co. Estimated cost, $75,000. H. Lux, Alhambra Theater, is interested.

INTERCEPTING SEWER, NEWARK, N. J.

Bids were received Feb. 9 by the Passaic Valley Sewerage Commissioners for constructing Section 8, northerly portion, of the Main Intercepting Sewer from (A) Dock Contractor Co., Hoboken, N. J.; (B) Mason & Hanger Co., New York, N. Y.; (C) Booth & Flinn, Ltd., New York, N. Y.; (D) Charles A. Haskin, Boston, Mass.; (E) Arthur McMullen, New York, N. Y.; (F) Oscar Daniels Co., New York, N. Y.; (G) Newark Paving Co., Newark, N. J., (H) Culp Co., Inc., Paterson, N. J.; (I) New York & New Jersey Construction Co., Newark, N. J. The item bids were as follows:

Atlantic City, N. J.—Plans have been prepared for the construction of a six-story addition to the Hotel Strand, Pennsylvania and Beach Ave. The estimated cost is $200,000. George Allen is Owner and Howard Edwards is Mgr.

Jersey City, N. J.—Bids will soon be received by the Jersey City Commissioners for the construction of a city hospital, nurses' home and police and fire headquarters. Noted Mar. 25.

Millville, N. J.—Bids will soon be received for the construction of a 120x166-ft. school. The estimated cost is $70,000. Arnold H. Moss is Arch. Noted June 4, July 30 and Sept. 10.

+Newark, N. J.—The contract for the construction of a seven-story theater and office building for F. F. Proctor, 1564 Broadway, New York, N. Y., has been awarded to FRED T. LEY & CO., 30 East 42d St., New York. Estimated cost, $300,000.

Newark, N. J.—The Strand Theater Corporation, 1579 Broadway, New York, N. Y., plans to construct a $150,000 theater. Thomas W. Lamb, 644 Eighth Ave., New York, and William E. Lehman, 738 Broad St., Newark, are Associate Archs.

Paterson, N. J.—Bids will soon be received for the construction of Public School No. 21. The estimated cost is $125,000. M. T. Anderson, City Hall, is Pres. Bd. of Education and W. T. Fanning, Colt Bldg., is Arch. Noted Oct. 1 and Jan. 14.

Paterson, N. J.—The Trustees of St. Josephs Hospital plan to construct an addition to cost about $50,000.

Perth Amboy, N. J.—The Board of Health has had preliminary plans prepared by Goldberger & Greisen, Arch., for the construction of an isolation hospital.

Ridgewood, N. J.—An election will be held Apr. 10 for the purpose of voting on the appropriation of $250,000 in bonds. The proceeds will be used for the construction of a three-story high school. Hadley Ford is Clk. of Bd. of Education. Noted Dec. 24.

+West New York, N. J.—(Weehawken post office)—The Public Service Electric Co. has awarded the contract for the construction of an office building on Bergenline Ave. to GEORGE W. CRANWELL & SON, West Hoboken, at about $53,000.

Allentown, Penn.—Plans are being prepared by Robert Rathburn, Arch., Hunsicker Bldg., for the construction of a three-story courthouse for Lehigh County. The estimated cost is $500,000.

+Bellowsville, Penn.—(Monaca post office)—The contract for the construction of the Beaver County building has been awarded to the LEY CONSTRUCTION CO., 1001 Park Bldg., Pittsburgh, at $96,890. Noted Mar. 25 and under Beaver Falls, Penn., Mar. 4.

Dickson City, Penn.—Plans have been prepared by John Howley, Arch., Scranton, for the construction of a 110x112-ft. school in the First Ward. Estimated cost, $75,000. Elmer Slocum is Dir. of School Bd. Noted Mar. 18.

+East Liberty, Penn.—TOUPET BEIL & CONLEY, Oliver Bldg., Pittsburgh, has been awarded the contract for the construction of a two-story, 100x131-ft. building on Penn Ave. and Whitfield St. for Henry Laughlin. Estimated cost, $70,000.

Edwardsville, Penn.—(Wilkes-Barre post office)—Plans have been prepared by J. A. Boyle, Arch., Bennett Bldg., Wilkes-Barre, for the construction of a two-story, 75x120-ft. high school. The estimated cost is $50,000.

+Erie, Penn.—The contract for the construction of the $100,000 building for St. Andrews Church at Seventh and Raspberry St. has been awarded to KIRSCHNER BROS., at $86,000. Noted Aug. 13.

Farrell, Penn.—The Farrell Commercial Club will organize a company to construct a $100,000 department store on Haywood St. between Broadway and the Pennsylvania Station. S. H. Kesminsky is interested.

Pen Argyl, Penn.—The Y. M. C. A. in coöperation with the Lehigh & New England R.R. will construct a building.

Philadelphia, Penn.—Plans are being prepared by J. Horace Cook, Arch., for the construction of an eight-story, 80x100-ft. administration building on the Parkway, for the Board of Education.

Philadelphia, Penn.—Plans are being prepared by E. T. Durang, Arch., 12th and Chestnut St., for the construction of a group of buildings at Cedar Ave. between 53rd and 54th St. for the Miserecordia Hospital. The estimated cost is $1,500,000.

+Philadelphia, Penn.—CHARLES SEYBOLD, JR., Clementon, N. J., has been awarded the contract for the construction of a hotel on Delaware Ave. and Pine St. for William J. McClain.

Pittsburgh, Penn.—F. C. Sauer, Arch., 804 Penn Ave., has prepared plans for the construction of a five-story building for Lodge No. 11, B. P. O. E. The estimated cost is $150,000. Noted Feb. 11.

Pittsburgh, Penn.—According to press reports the Board of Education will receive bids again for the construction of the Schenley High School. The contract for this work was awarded to J. L. Stuart, Pittsburgh, but the Supreme Court has ruled that this contract is invalid. Noted Oct. 22 and Nov. 19.

Tunnel Method	A	B	C	D	E	F
3292 lin.ft. excavation in earth, rock or earth and rock, in compressed air tunnel, for 135-in. sewer	$82.78	$80.00	$79.50	$79.00	$72.50	$70.00
6600 cu.yd. concrete masonry in compressed air tunnel and shafts	11.00	12.00	10.00	10.00	12.00	10.00
100 cu.yd. brick masonry in shafts and manholes	20.00	16.00	18.00	20.00	20.00	10.00
12,000 lb. steel for concrete reinforcement	0.05	0.05	0.05	0.04	0.04	0.03
Extended totals	$347,712	$344,760	$330,114	$328,548	$320,350	$297,800

Open Trench Method	B	E	F	G	H	I
1555 lin.ft. earth excavation in trench for 132-in. sewer	$50.00	$75.00	$61.00	$68.00	$88.22	$72.00
1737 lin.ft. earth excavation in trench for 126-in. sewer	50.00	70.00	60.00	68.00	88.22	60.00
500 cu.yd. rock excavation in trench	4.00	4.00	2.00	0.01	0.01	3.00
8500 cu.yd. concrete masonry	8.00	9.00	8.00	8.00	0.01	8.00
100 cu.yd. brick masonry	16.00	20.00	2.00	20.00	0.01	20.00
12,000 lb. steel for concrete reinforcement	0.04	0.04	0.03	0.03	0.05	0.04
Extended totals	$236,680	$319,195	$269,635	$294,221	$291,111	$288,160

Pittsburgh, Penn.—Preliminary plans have been prepared by George S. Orth & Bro., Arch., for the construction of the three-story Homewood-Brushton High School at Murtland Ave. and Monticello St. The building when complete will cost $700,000, but only $265,000 will be expended at present. Noted Mar. 4.

+**State College, Penn.**—The contract for the construction of a 2½-story, 25x125-ft. building with a 25x60-ft. wing, for the Phi Gamma Delta Fraternity, State College, has been awarded to HENRY L. BROWN, 1714 Sansom St., Philadelphia. Estimated cost, $40,000.

Warren, Penn.—Contracts will soon be awarded for the construction of a two-story library. Estimated cost, $80,000. Noted Feb. 11.

Washington, D. C.—Frank G. Pierson, Arch., Washington Loan & Trust Bldg., has prepared plans for the construction of a one-story, 240x340-ft. convention hall for the Washington Convention Hall Co. Estimated cost, $250,000.

Baltimore, Md.—Preliminary plans are being prepared by Wyatt & Nolting, Arch., Keyser Bldg., for the construction of a hotel for the Baltimore Hotel Co. Estimated cost, $200,000. Jacob Epstein, 200 West Baltimore St., is interested.

Baltimore, Md.—Bids will soon be received by Henry W. Webb, Pres. of Northern Amusement Co., Title Bldg., for the construction of a theater. The estimated cost is $125,000. Oliver B. Wright, 1008 Munsey Bldg., is Arch. Noted Feb. 11.

Baltimore, Md.—Plans are being prepared by Theodore Wells Pietsch, Arch., for the construction of a building at Charles St. and University Parkway for the North Baltimore Methodist Episcopal Church. The estimated cost is $200,000.

Macon, Ga.—The Macon Terminal Co. has been petitioned by the Georgia Railroad Commission to prepare plans by Sept. 1 for the construction of the Union Passenger Depot at Cherry near Fifth St. Estimated cost, $1,500,000.

Macon, Ga.—The citizens have voted $150,000 in bonds for the construction of a hospital at Macon.

Birmingham, Ala.—A. R. Boone and associates plan to construct a 2½-story motion picture theater on Second Ave. between 19th and 20th St. The estimated cost is $50,000. H. B. Wheelock is Arch.

Knoxville, Tenn.—Bids are being received by Miller, Fullenwider & Dowling, Arch., 6 North Michigan Ave., Chicago, Ill., and by Alfred B. Baumann, Assoc. Arch., Knoxville, for the construction of a two-story library for the Lawson-McGhee Estate. L. D. Tyson is Pres. Bd. of Trustees. Estimated cost, $55,000. Noted May 14, 1914.

+**Akron, Ohio**—The contract for the construction of an addition for the Akron Hotel Co., Main and Market St., has been awarded to the CARMICHAEL CONSTRUCTION CO., 526 Hamilton Bldg. Estimated cost, $40,000.

Alliance, Ohio—Plans are being prepared by W. W. Matchett, Arch., 537 East Main St., for the construction of a two-story, 47x120-ft. theater and store building. Estimated cost, $45,000.

Columbus, Ohio—The Guarantee Title & Trust Co., 316 South High St., plans to construct a six-story bank and office building. Estimated cost, $200,000. George L. Gugle is Secy.

+**East Cleveland, Ohio**—The contract for the construction of a $50,000 library has been awarded to JAMES H. WELLS CO., Scranton Rd., Cleveland. Noted Jan. 21 and Feb. 25.

Salem, Ohio—The Masonic Lodge plans to construct a two-story temple. Estimated cost, $40,000. J. G. Augustine is Chn. of Bldg. Com.

+**Toledo, Ohio**—A. BENTLEY & SON, 201 Belmont Ave., has been awarded the contract for the construction of a five-story hotel for the Commonwealth Building Co. Estimated cost, $40,000.

Wellsville, Ohio—The First Methodist Episcopal Church plans to construct a building at Union and Fifth St. Estimated cost, $80,000. Noted Sept. 24.

Youngstown, Ohio—Plans are being revised by Stanley & Scheible, Arch., 1301 Wick Bldg., for the construction of a five-story, 58x144-ft. Y. W. C. A. building. Estimated cost, $40,000. Mrs. E. F. Moore, 225 West Rayen St., is Gen. Secy.

Bloomington, Ind.—Preliminary plans are being prepared by R. P. Daggett & Co., Arch., 956 Lemcke Annex, Indianapolis, for the construction of a one-story, 100x200-ft. gymnasium for the Indiana University. Estimated cost, $150,000. J. W. Cravens is Secy. of University. Noted Mar. 25.

Indianapolis, Ind.—Bids will soon be received by Rubush & Hunter, Assoc. Arch., 428 American Central Life Bldg., for the construction of a four-story Masonic Temple for the F. & A. M. Estimated cost, $50,000. J. J. Twiname is Chn. of Bldg. Com.

Portland, Ind.—The County Council has appropriated $70,000 for the construction of a county courthouse. The estimated cost is $250,000.

Chicago, Ill.—Plans are being prepared by Holabird & Roche, Arch., 104 South Michigan Ave., for the construction of a four-story armory for the First Cavalry I. N. G. The estimated cost is $200,000.

Chicago, Ill.—Plans are being prepared by Davidson, Lockwood & Morgan, Arch., for the construction of a three-story building. Estimated cost, $250,000. Patterson & Davidson, 53 West Jackson Blvd., is Engr.

Chicago, Ill.—Plans have been prepared by Huehl, Schmid & Holmes, Arch., 154 West Randolph St., for the construction of a two-story, 50x125-ft. building for Eitel Bros., Grace and North Halstead St. Estimated cost, $175,000.

Ottawa, Ill.—Bids will soon be received by William B. Ittner, Assoc. Arch., Ninth and Locust St., St. Louis, Mo., for the construction of a two-story high school. Estimated cost, $200,000. Charles F. Kingman, Ottawa, is Secy. of Bd. of Education. Noted Feb. 4 and 18.

Milwaukee, Wis.—Bids will be received about Apr. 15, by Kirchoff & Rose, Arch., 1312 Majestic Bldg., for the construction of the Palace Hippodrome Theater. It will be four stories, 150x250-ft. and will cost about $350,000. Noted Mar. 4 and 11.

Des Moines, Iowa—The Adelphi Temple Association, 1168 24th St., contemplates the construction of a lodge building. Estimated cost, $50,000.

Primghar, Iowa—Plans are being prepared by Smith & Keffer, Arch., 610 Youngerman Bldg., Des Moines, for the construction of a three-story, 77x116-ft. courthouse for O'Brien County. The estimated cost is $150,000. J. B. Stamp is Audr.

Rock Rapids, Iowa—Plans are being prepared by Smith & Keffer, Arch., 610 Youngerman Bldg., Des Moines, for the construction of a three-story courthouse for Lyon County. Estimated cost, $120,000. E. J. Riegel is Audr.

Spencer, Iowa—The Masonic Association plans to construct a $50,000 temple at Spencer.

Minneapolis, Minn.—C. E. Bell, Arch., 310 Security Bank Bldg., has prepared plans for the construction of a 12-story hotel on Second St. and Hennepin Ave. for the Union City Mission. The estimated cost is $440,000. Noted Dec. 31.

Marysville, Kan.—(Official)—Bids will be received until Apr. 7 by D. P. Armstrong, Clk. Bd. of Education, for the construction of a school. The estimated cost is $45,000. Noted Mar. 18.

Omaha, Neb.—Bids are being received by W. R. Stockham, Arch., 426 Ramge Blk., for the construction of a four-story, 70x132-ft. hotel to be known as Hotel Edwards for the Independent Realty Co., 315 Karbaugh Blk. Estimated cost, $100,000.

Rapid City, S. D.—Plans are being prepared by J. P. Eisentraut, Arch., for the construction of a three-story, 65x65-ft. bank and office building for the Merchants Loan & Trust Co. The estimated cost is $40,000.

ADDITIONAL WATER-SUPPLY

Salem, Mass.

Bids were received Mar. 10 by the Salem and Beverly Water-Supply Board for the construction of an additional water supply canal and conduit from the Ipswich River from: (A) Engineer's Estimate; (B) McHarg-Barton Co., 171 Madison Ave., New York, N. Y.; (C) F. T. LEY & CO., INC., Springfield (awarded contract); (D) Thomas Fitzgibbon Co., Beverly; (E) Bay State Dredging Co., Boston; (F) W. B. Mullen, Boston; (G) Coleman Bros., Boston; (H) Middlesex Contracting Co., Boston; (I) M. Russo & Son, Boston; (J) T. A. Scott & Co., Inc., New London, Conn. (K) L. B. Cleveland, Watertown, N. Y.; (L) Bonfidio Perini, Ashland; (M) Holbrook, Cabot & Rollins, Boston; (N) Eastover Construction Co., Utica, N. Y.; (O) John J. Hart, New York; (P) Bruno & Petitti, Boston; (Q) W. L. Miller and J. J. Welch & Co., Salem; (R) Canal Construction Co., New York. The item bids were as follows:

	A	B	C	D	E	F	G	H	I
110,000 cu.yd. canal excavation	$0.25	$0.11	$0.15	$0.18	$0.22	$0.24	$0.26	$0.26½	$0.28
Dredge	10,000.00	12,000.00	7000.00	7000.00	6325.00	5500.00	8250.00	7800.00	8500.00
9000 cu.yd. general excavation	1.00	0.60	1.00	0.85	0.70	1.60	0.85	0.80	0.60
275 cu.yd. concrete	10.00	7.00	8.50	11.25	11.00	10.50	8.25	9.00	9.50
6000 lb. steel reinforcing	0.05	0.03	0.04	0.03	0.05	0.04½	0.03	0.05	0.02½
1430 ft. conduit	7.00	5.00	5.00	5.87	5.50	4.50	6.00	5.80	6.50
420 ft. 36-in. c.i. pipe on piles	4.00	2.00	5.80	3.22	2.50	2.50	4.00	3.90	3.25
1020 ft. vitrified or concrete pipe	4.00	3.25	2.90	3.37	3.35	3.75	3.50	4.25	3.60
Pumping station	4000.00	2500.00	1575.00	1975.00	3500.00	2580.00	3000.00	2800.00	3050.00
150 sq.yd. paving	1.50	0.80	1.25	1.21	1.50	1.00	3.00	2.00	1.60
Construction under roadways	1000.00	1000.00	75.00	400.00	200.00	100.00	500.00	500.00	200.00
Appurtenances	2000.00	1000.00	1500.00	1178.00	925.00	1000.00	1000.00	1200.00	800.00
Extended totals	$72,545	$47,530	$50,959	$54,642	$57,332	$64,598	$65,729	$65,992	$66,085

	J	K	L	M	N	O	P	Q	R
110,000 cu.yd. canal excavation	$0.39	$0.24	$0.35	$0.20	$0.30	$0.27	$0.40	$0.44	$0.42
Dredge	8500.00	12,000.00	12,000.00	15,500.00	10,000.00	16,000.00	10,000.00	9500.00	10,800.00
9000 cu.yd. general excavation	0.70	1.50	0.70	1.54	1.00	1.90	1.00	1.10	2.20
275 cu.yd. concrete	7.00	12.00	10.00	10.00	10.00	8.20	10.00	12.00	8.77
6000 lb. steel reinforcing	0.04	0.05	0.03½	0.05	0.03	0.05	0.05	0.06	0.044
1430 ft. conduit	4.60	4.75	7.00	6.75	7.50	5.67	7.00	7.75	7.51
420 ft. 36-in. c.i. pipe on piles	3.50	5.00	3.50	5.36	4.50	4.20	4.50	5.00	5.07
1020 ft. vitrified or concrete pipe	3.30	3.50	3.25	4.50	4.25	5.80	4.00	4.50	6.15
Pumping station	1800.00	2500.00	1100.00	2310.00	5000.00	1195.00	6000.00	4600.00	2425.00
150 sq.yd. paving	1.00	2.50	2.00	0.60	1.00	1.50	1.00	2.00	1.60
Construction under roadways	100.00	2000.00	200.00	3000.00	600.00	100.00	50.00	600.00	715.00
Appurtenances	950.00	1500.00	900.00	2000.00	2000.00	1500.00	500.00	1500.00	2250.00
Extended totals	$74,279	$74,337	$77,055	$78,304	$79,630	$84,163	$88,730	$96,232	$104,247

Douglas, Wyo.—(Official)—Bids will be received until 10 a.m., Apr. 20, by the County Commission for the construction of a $40,000 county courthouse. W. N. Bowman, 915 Central Savings Bank Bldg., Denver, Colo., is Arch. Noted Mar. 18.

Butte, Mont.—(Official)—(Correction)—The construction of the $250,000 depot on Montana St. for the Chicago, Milwaukee & St. Paul Ry. will not be started this year. C. F. Loweth is Ch. Engr. Noted Mar. 18.

✚Great Falls, Mont.—The contract for the construction of a Y. M. C. A. building has been awarded to the LANGE CONSTRUCTION CO., at $73,550. G. H. Shanley is Arch. Noted Oct. 8.

Chaffee, Mo.—Bids will soon be received by John Jacob Astor, Chaffee, for the construction of a five-story, 70x120-ft. hotel. Estimated cost, $100,000. J. W. Matz, 314 Nasby Bldg., Toledo, Ohio, is Arch.

St. Joseph, Mo.—The St. Joseph Amusement Co. contemplates the construction of a $100,000 theater. Carl Boller, 7 Gayety Theater Bldg., Kansas City, is Arch. C. V. Philley is interested.

Little Rock, Ark.—Bids will be received about Apr. 20 by Mann & Stern, Arch., for the construction of a two-story, 140x140-ft. club house for the Mutual Realty Co. The estimated cost is $45,000.

Pocatello, Idaho—Bids will soon be received by Sollio, Boyer & Rogers, Arch., for the construction of the Yellowstone Hotel. The estimated cost is $300,000. Noted Nov. 19.

Seattle, Wash.—Bids will be received about Apr. 5 for the construction of a two-story addition to the Lowell School at 12th and Federal Ave. Estimated cost, $60,000. Edgar Blair is School Arch.

Seattle, Wash.—Bids will be received about Apr. 15 by Edgar Blair, School Arch., for the construction of two 40x60-ft. wings to the B. F. Day School. The estimated cost is $55,00.

✚Sedro Woolley, Wash.—The contract for the construction of a two-story, reinforced-concrete library has been awarded to D. DALTON. Estimated cost, $50,000.

Portland, Ore.—The Failing Estate plans to rebuild its three-story building recently destroyed by fire with a loss of $60,000.

A Mysterious Land Purchase—A purchase of a tract of land, involving $1,000,000, and ostensibly for manufacturing purposes, has been made at Orangeburg, N. Y., a small manufacturing town on the West Shore R.R., 21 miles from New York. A. A. McCrary, who in past years has acted as agent in purchasing sites for various large corporations, has been employed for the past two years in securing properties in this town and vicinity. The land already taken over has deep water facilities at the Hudson, frontage on the West Shore R.R., Erie R.R. and Northern Railroad of New Jersey. Speculation has been rife as to the purpose of this purchase but the operations have been of the most secret nature. McCrary has not committed himself further than stating that one of the largest industrial plants in this country will be located there, and that within two years 6000 men will be employed. It has been rumored that the Bethlehem Steel Corporation had made the purchase for the treatment of its Chilean and Cuban Ores. Charles M. Schwab, president of that company, however, denies any knowledge of the under taking. Another theory set forth was that such a spot was ideally situated for a plant to treat the Adirondack ores. But all corporations which might be interested in this plant have flatly denied any such intention. It has also been suggested that the Standard Oil Co. might be considering the establishment of a refinery at that point, a pipe line passes the site of the New York Transit Co. Over $1,000,000 has been paid out for this land which intrinsically is not worth one-quarter of that amount and it would seem that the chief motives were the railway facilities together with deep water frontage.

An Enormous Aëroplane Order—It is estimated that an order for aëroplanes for war purposes, placed by the Italian Government with the Curtiss Aëroplane Co., Hammondsport, N. Y., will amount to several million dollars. The specifications call for aëroplanes of 100 hp. with both pontoons for sea services and with wheels for land work. The aëroplanes will be so constructed that bomb-dropping devices and a gun may be attached. Each aëroplane is capable of sustaining a load 400 lb. The cost of each is $7500. Cap. Carlos Pfister of the Italian Navy, 161 Madison Ave., New York, N. Y., is representative of the Italian Government in connection with the work.

The C. H. & E. Mfg. Co., Milwaukee, Wis., manufacturer of contractors' supplies, announces that in March it will occupy its new factory. This is a two-story building of mill-construction, with 36,000 sq.ft. of floor space.

RUSSIA

Improving Russian Railways—The narrow-gage lines of Russia have, in many places, outlived their usefulness. The "London Times" tells of changing conditions in a recent issue as follows:

"The existing railway between Vologda and Archangel has very small transport capacity owing to its narrow gage. When increased traffic began on the Vologda-Archangel line it was necessary to take a certain number of cars from the narrow-gage Ryazan Ry., but these proved insufficient, and now, to increase the rolling stock, 30 locomotives of the Mallet type and 500 cars have been ordered for the narrow gage.

"At the present work has begun on the construction of a broad-gage railway almost parallel to the existing narrow-gage line from Vologda to Niandoma, a length of 300 versts (199 miles). Niandoma is situated half way between Vologda and Archangel. At the end of July (old style), 1915, the new Vologda-Niandoma Ry. will be finished and regular traffic will be opened on it, when it will be possible to concentrate on the Niandoma-Archangel section all the rolling stock that is now working on the narrow-gage Vologda-Archangel line, which will double the transport capacity of the road. There is ample rolling stock for the new broad-gage Vologda-Niandoma Ry.

"The topographical conditions in the railway zone are not favorable, there are many swamps, and it is estimated that the construction of the railway, with bridges and station buildings, will amount to $6,180,000, at the rate of $31,076 per mile. The work is being carried on with great energy, notwithstanding the winter, 30 engineers and a proportionate number of laborers being engaged. It is proposed to build all the bridges in the winter and complete excavation work where the dry, unfrozen ground permits.

"By agreement between the Ministers of Ways of Communication and of Finances it has been decided to construct a railway from Petrozavodsk to the town of Kem, an ice-free port situated on the shore of Onezh Bay, a distance of 380 versts (252 miles). The sum of $41,200 has been appropriated for the survey, which will be carried out rapidly, in order that the work of construction may begin during the current winter.

"Both the survey and construction will be superintended by the former head of the Warsaw-Vienna Ry., Engineer Pauker, now Chief of the Railway Construction Bureau. It is anticipated that it will be possible to run the first train in the winter of 1915. The cost of construction is estimated at $10,815,000. Later it is proposed to extend the line to the Murman coast.

"The task of surveying and building this new line is complicated by the unexplored nature of the locality through which it will have to pass. Furthermore, the fact that the survey is to be made in winter gives rise to fears lest the results should not correspond to the actual situation. Nevertheless, considering the great importance of the road—it will form an outlet for Russian trade independent of war conditions—it has been decided to construct it as far as possible without delay."

The Sandusky Portland Cement Co. announces that Henry C. Morrison is Western Representative of the company with offices at 710 Railway Exchange Bldg., St. Louis. He will be glad to take up problems of waterproofing with any one interested, having devoted the last four years to successful waterproofing for some of the large structures in the United States and Canada.

The Stark Rolling Mill Co., Canton, Ohio, announces the appointment of the Dearborn Steel & Iron Co. as its selling agent in Chicago. The latter company was formed by H. C. Perrine and E. L. Lyon and the office will be in the Peoples Gas Bldg., Chicago.

PAVING, PUEBLO, COLO.

✚Bids were received Feb. 15 by the City Council for the improvement of the "Mineral Palace Paving District." Bids were submitted on both a bond and a cash basis, but the accompanying table gives the price for cash. The bidders were: (A) R. P. McDonald Construction Co., Denver; (B) J. A. Laughlin, Trinidad; (C) Campbell Construction Co., Pueblo; (D) Two Miracle Construction Co., Great Falls, Mont.; (E) Gaffy & Keefe, Construction Co., Denver; (F) Denver & Pueblo Construction Co., Pueblo; (G) R. Clough & Son, Colorado Springs; (H) ANDERSON-HAMMEL CONSTRUCTION CO., Pueblo (awarded contract); (I) Gordon & Taylor Construction Co., Pueblo; (J) P. C. Croll, Pueblo; (K) Mishou & Millard, Pueblo; (L) Engineer's Estimate. The item bids were as follows:

	A	B	C	D	E	F	G.	H	I	J	K	L
2820 lin.ft. 36-in. brick sewer	$3.84	$3.82	$3.93	$3.50	$3.56	$3.92	$3.57	4.34\frac{1}{2}$	$3.45	$4.10	$4.61	$3.50
2820 lin.ft. 36-in. concrete sewer	3.15	2.80	3.05	3.50	....	3.92	....	4.09	3.20	3.54	4.10	3.50
960 lin.ft. 30-in. brick sewer	3.40	3.47	3.60	2.80	3.16	3.75	3.16	4.01$\frac{1}{2}$	3.10	3.84	4.10	2.80
960 lin.ft. 30-in. concrete sewer	2.95	2.23	2.84	2.80	....	3.75	....	3.75	2.80	3.05	3.85	2.80
1266 lin.ft. 27-in. vitrified sewer	2.25	2.42	2.38	2.15	1.90	2.15	2.04	2.20	2.00	2.98	2.30	2.54
1565 lin.ft. 24-in. vitrified sewer	1.75	1.97	1.92	1.60	1.50	1.65	1.68	1.81$\frac{1}{2}$	1.60	2.23	1.81	2.09
860 lin.ft. 21-in. vitrified sewer	1.46	1.34	1.47	1.30	1.10	1.24	1.43	1.54	1.35	1.39	1.40	1.62
2630 lin.ft. 18-in. vitrified sewer	1.22	1.29	1.13	0.85	0.85	1.06	1.19	1.21	1.10	1.44	1.24	1.29
3515 lin.ft. 15-in. vitrified sewer	0.90	0.93	0.91	0.66	0.65	0.80	0.96	0.88	0.80	0.99	0.85	1.02
3780 lin.ft. 12-in. vitrified sewer	0.72	0.77	0.71	0.57	0.55	0.62	0.72	0.77	0.65	0.67	0.66	0.84
16,090 lin.ft. 10-in. vitrified sewer	0.60	0.70	0.53	0.51	0.49	0.55	0.53	0.55	0.50	0.45$\frac{1}{2}$	0.59	0.70
50 manholes	31.00	51.00	38.50	30.00	25.00	31.00	40.80	36.85	35.00	42.50	38.00	39.00
8 catch-basins, "A"	37.50	50.00	44.71	70.00	30.00	43.00	36.00	36.85	35.00	54.00	50.00	45.00
18 catch-basins, "B"	35.00	50.00	44.71	70.00	29.00	40.00	30.60	36.85	33.00	54.00	50.00	40.00
38 catch-basins, "C"	34.50	49.00	42.28	55.00	29.00	40.00	30.60	36.85	35.00	54.00	50.00	40.00
140 inlets	25.50	21.20	19.50	27.00	20.00	25.00	2.05	20.42	20.00	25.50	20.00	18.00
75 monument boxes	8.00	5.00	5.00	8.00	6.00	8.00	2.05	5.50	9.00	5.50	4.95	5.00
34,250 cu.yd. excavation for pavement	0.37	0.34	0.40	0.28$\frac{1}{2}$	0.30	0.36	0.40	0.28$\frac{6}{10}$	0.38	0.40$\frac{1}{2}$	0.40	0.40
104,400 lin.ft. combined curb and gutter	0.50	0.47	0.42	0.45	0.47	0.60	0.59	0.42$\frac{3}{10}$	0.47	0.46	0.40	0.60
1900 lin.ft. gutter only	0.30	0.30	0.25	0.25	0.37	0.30	0.30	0.23	0.25	0.24$\frac{1}{2}$	0.27$\frac{1}{2}$	0.30
197,300 sq.yd. gravel pavement	0.25	0.21	0.25	0.20$\frac{1}{2}$	0.19$\frac{1}{2}$	0.26$\frac{1}{2}$	0.26	0.17	0.26	0.25$\frac{1}{2}$	0.24$\frac{3}{10}$	0.27
50 manholes changed	5.00	1.00	0.75	5.00	5.00	8.00	4.10	2.75	5.00	3.05	5.00	2.00
Extended totals, using brick sewer	$162,662	$154,059	$154,387	$141,520	$138,388	$174,276	$169,152	$137,264	$156,644	$163,615	$155,753	$179,580
Extended totals, using concrete sewer	$160,284	$149,992	$151,176	$141,520		$174,276		$136,290	$155,651	$161,278	$154,075	$179,580

SOUTH AMERICA

Construction Machinery in South America—V. L. Havens commercial attaché at Santiago, writes as follows:

In general construction work in Chile, such as ditching, building of dikes and levees, and railway cutting, the material is generally moved by hand, and it seems that there should in time be market for American grading machinery, such as slips, wheelers, road graders, elevating graders, and the dump wagons that ordinarily go with them.

In discussing the possibilities with some of the local houses, the opinion was expressed that there would be a chance to sell American machinery only if there was an American contractor here to buy it. It is not unlikely that they could assist the contractor in finding work to do. Any man who took up the work would have to be personally familiar with the machines in detail and of such experience that he could instruct men in their use, care, and repair. Inasmuch as such machinery occupies considerable space when set up, it would have to be sent in a knocked-down condition and packed in such a way as to permit handling by lighters in a rough sea. The horses in Chile are very good and would be all right for use with the machines, but men who are competent to drive 10 and 14 horse teams are not very numerous. It might be necessary to import a very limited number of skillful drivers from the south or southwest part of the United States who speak Spanish and are familiar with the machines. Men to handle slips and wheelers could be found locally. The import duties are rather high, and it might be found desirable to ship merely the iron parts of the wagons and make the wooden parts locally from the very good native oak. Local shops exist where ordinary repairs to railway construction plants could be made.

Inasmuch as South America is a country of great distances, very much as North America, and as the west coast is very much like the North American coast, except that the timber and heavy rainfall is in the southwest and light rainfall and irrigation country in the northwest, the future development of South America in railway and irrigation is apt to be very similar to that of the western part of the United States.

This is not meant to convey the idea that there is any immediate business or great prizes to be obtained in this field in South America with a small effort. Anything that is accomplished will be accomplished through deep study and hard work, and returns will not be very rapid, owing to the unusually small supply of funds for financing new enterprises at the present time. But the future of the business, I am sure, is important and worthy of consideration, and those who ultimately desire to enter this field should begin their studies and preparations very soon. There is even time for much to be done by correspondence at present, when such a slow process could not be followed in busy times.

The Northern Chemical Engineering Laboratories announce the shorter name of "C. F. Burgess Laboratories." The new name implies no change in management or ownership. C. F. Burgess will continue as President, with offices at Madison, Wis.

The Burd High Compression Ring Co. has moved its offices from the Masonic Temple to 307 South Main St., Rockford, Ill.

The McComba Engineering Co., Cameron, Tex., would like to receive catalogs and quotations on automatic devices for discharging sewage from the dosing chamber to the filter beds in disposal plant.

The Wyckoff Pipe & Creosoting Co., Inc., has removed its offices from 50 Church St. to the Forty-Second St. Bldg., 30 East 40th St., New York, N. Y.

The Federal Bridge Co., Waukesha, Wis., is the new name of the Modern Steel Structural Co., which has been in business for several years. C. J. McIntosh is Pres. and G. A. Haynes is Ch. Engr.

To Build "Rocmac" Roads—The Philadelphia Quartz Co., 121 South Third St., Philadelphia, has undertaken the construction of broken-stone roads with "Rocmac" binder. This is a proprietary compound composed of "silicate of soda, sugar, powdered limestone and other ingredients," the exact preparation of which is kept a trade secret. The materials used in construction are "Rocmac" binder, limestone dust and crushed stone. There are two processes of construction, by mixing the binder with the aggregates, or by applying the binder as a penetration coating. The "Rocmac" matrix or mortar used in the penetration method is defined as a special solution thoroughly mixed with limestone dust in the proportion of 36 gal. of solution to 1 cu.yd., enough water being added to give the matrix a consistency to work uniformly. For the mixing method the same matrix is used in the same proportions. In rolling the surface is slightly sprinkled to facilitate the puddling of the matrix. The foundation and stone aggregates are the same as specified for all broken stone road surfaces, except that a hard tough limestone seems to be preferred. The quantity of stone in the usual proportions is given as 2½ parts of 2-in. stone to 1 part of limestone screenings.

ASHBY RESERVOIR, FITCHBURG, MASS.

✚Bids were received Mar. 2 by the Water Commissioners, Fitchburg, Mass., for the construction of the Ashbey Reservoir from: (A) E. W. FOLEY CONTRACTING CO., Erie, Penn. (awarded contract); (B) International Construction Co., Boston; (C) Hassam Paving Co., Worcester; (D) De Onfro Bros., Leominster; (E) P. Perini, Ashland; (F) Barrally & Ingersoll, Rochester, N. Y.; (G) Joseph Long & Co., Leominster; (H) Russo & Parker Construction Co., Hudson, N. Y.; (I) R. F. Hudson, Melrose; (J) Doolittle & Garland, Kent, Ohio; (K) Coleman Bros., Boston; (L) Bruno & Petitti, Boston; (M) F. B. Beasman & Co., Baltimore, Md.; (N) F. A. Gammino, Providence, R. I.; (O) Cenedella & Co., Milford; (P) R. H. Newell Co. and N. S. Brock, Uxbridge; (Q) C. W. Blakeslee & Sons, New Haven, Conn.; (R) H. P. Cummings Construction Co., Ware; (S) Fraser, Brace & Co., New York, N. Y.; (T) John Marsh, Southbridge. The item bids were as follows:

ASHBY RESERVOIR

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
90 acres clearing	$40.00	$40.00	$50.00	$100.00	$40.00	$20.00	$35.00	$75.00	$100.00	$50.00	$100.00	$30.00	$35.00	$100.00	$50.00	$50.00	$120.00	$57.00	$10.00	$150.00
60 acres grubbing	85.00	150.00	100.00	100.00	90.00	55.00	100.00	150.00	50.00	100.00	200.00	90.00	70.00	50.00	100.00	175.00	120.00	220.00	130.00	550.00
Disposal of loose stumps, etc. (lump sum)	250.00	800.00	400.00	1000.00	1500.00	1000.00	1500.00	1000.00	1000.00	500.00	500.00	1000.00	6000.00	1500.00	700.00	850.00	3000.00	1000.00	1650.00	50.00
400 cu.yd. earth excavation	1.00	0.30	0.35	0.50	0.70	0.75	0.75	0.75	1.00	1.00	1.00	0.80	1.00	1.00	0.80	1.00	1.25	0.55	0.60	1.00
19,600 cu.yd. loam excavation	0.40	0.35	0.50	0.50	0.50	0.60	0.70	0.47	0.40	0.65	0.50	0.40	0.65	0.75	0.65	0.55	0.75	0.80	0.65	0.75
3200 cu.yd. earth excavation, 0 to 10 ft. deep	0.80	1.25	0.75	1.00	0.75	1.40	0.85	0.65	1.00	1.50	0.60	2.00	1.48	1.00	2.00	0.90	1.70	1.15	3.37	3.25
2300 cu.yd. earth excavation, 10 to 24 ft. deep	1.00	1.70	1.75	2.00	1.50	3.00	2.25	1.50	2.00	2.00	1.25	3.00	2.98	2.50	2.75	3.00	2.10	2.20	5.95	6.75
800 cu.yd. earth excavation, 24 to 36 ft. deep	1.50	2.75	2.50	3.00	4.00	3.50	6.00	3.50	3.00	8.00	2.00	5.00	4.98	5.00	4.80	6.00	3.25	3.45	6.62	8.40
21,300 cu.yd. earth excavation for dam and dike	0.60	0.50	0.75	0.60	0.47	0.60	0.50	0.50	0.60	0.60	0.60	0.60	0.65	0.50	0.70	0.50	0.70	0.80	0.83	0.42
5600 cu.yd. earth excavation for road construction	0.50	0.45	0.50	0.50	0.47	0.70	0.42	0.50	1.00	0.60	0.50	0.45	0.46	0.60	0.95	0.55	0.56	0.45	0.45	0.45
1900 cu.yd. earth excavation for roads and fills	0.50	0.35	0.60	0.50	0.50	0.60	0.45	0.50	0.50	0.60	0.60	0.45	0.54	0.50	0.60	0.50	0.51	0.45	0.75	0.45
100 cu.yd. earth excavation for drainage ditches	1.00	0.75	0.60	0.30	1.00	0.50	0.60	1.00	1.00	0.50	0.50	1.00	1.00	1.00	1.50	0.50	2.20	0.85	0.96	0.35
2200 cu.yd. rock excavation for dam and dike	1.25	1.70	1.75	1.50	3.00	2.00	3.70	2.50	2.00	1.25	3.00	2.50	1.95	3.00	2.75	3.50	4.00	2.00	1.86	0.80
4600 cu.yd. rock excavation for road construction	1.00	1.40	1.50	0.75	1.70	1.00	1.75	1.00	1.00	1.00	1.60	2.00	1.05	2.00	0.95	1.50	2.00	2.50	1.50	0.80
500 cu.yd. removing boulders	1.00	0.70	0.75	0.40	1.00	1.00	0.90	1.00	1.00	0.75	1.00	1.00	1.05	1.50	2.00	1.50	1.75	0.60	0.60	0.80
2100 cu.yd. bond gravel in roads	0.80	1.35	1.50	1.50	1.00	0.80	0.55	1.50	1.00	1.50	0.90	0.60	1.75	1.50	1.70	1.50	2.25	1.40	1.55	0.50
15,000 cu.yd. excavated material hauled	0.03	0.02½	0.02½	0.08	0.03	0.02	0.03	0.03	0.01	0.02	0.02	0.03	0.04	0.10	0.01½	0.03	0.03	0.02	0.03	0.10
8700 sq.yd. grassing earth surfaces	0.15	0.02	0.10	0.03	0.10	0.04	0.04	0.11	0.50	0.15	0.10	0.05	0.20	0.15	0.12	0.05	0.03	0.10	0.03	0.40
2400 cu.yd. masonry in dam and dike	8.50	9.50	7.25	8.00	7.00	9.00	5.90	7.00	9.00	8.50	8.00	9.50	7.75	9.25	9.00	8.50	7.25	12.00	12.86	10.00
1470 cu.yd. concrete masonry in gatehouse substructure, spillway dams, etc.	7.50	8.00	6.50	7.00	8.50	6.75	6.50	8.00	7.00	8.50	8.00	11.00	8.10	10.00	9.00	12.00	7.00	9.75	9.08	10.00
Use of grouting apparatus (lump sum)	150.00	50.00	150.00	75.00	260.00	1000.00	500.00	500.00	400.00	200.00	100.00	100.00	175.00	500.00	400.00	500.00	400.00	25.00	100.00	100.00
100 cu.ft. cement grout placed	2.50	0.50	2.00	0.50	0.75	1.00	0.30	0.85	0.50	0.20	0.90	1.00	0.35	1.50	5.00	1.00	1.25	1.20	2.40	1.00
179,000 lb. twisted steel reinforcing bars	0.02½	0.04	0.03	0.03	0.04	0.02½	0.05	0.05	0.04	0.03¾	0.02½	0.04	0.04½	0.03	0.03	0.03½	0.06	0.03 3/10	03	0.03
30 lin.ft. 16-in. pipe	1.00	0.20	0.40	1.00	0.75	0.30	0.50	0.35	0.50	0.75	2.00	1.00	0.75	1.00	0.70	0.50	1.00	0.40	1.10	0.43
1270 lin.ft. 24-in. pipe	1.00	0.20	0.55	1.00	1.25	0.35	0.50	0.35	0.60	0.75	2.00	1.00	0.75	1.00	0.70	0.80	2.00	0.40	1.52	0.86
5300 sq.yd. medium stone paving	0.75	0.20	0.50	0.70	1.10	1.00	0.70	0.95	1.00	0.75	1.00	0.75	1.15	1.00	1.25	1.00	1.00	1.15	1.00	1.00
50 sq.yd. medium stone paving	1.00	0.35	1.00	0.90	1.50	1.50	1.25	2.00	2.00	0.75	2.00	1.25	1.55	1.25	2.00	2.00	1.35	1.80	1.60	1.50
1900 sq.yd. heavy stone paving	1.25	0.45	1.50	1.00	2.00	2.50	1.25	2.50	2.00	1.50	2.50	1.25	1.70	1.75	1.50	2.50	3.25	2.20	1.86	2.00
Superstructure of gate-house (lump sum)	500.00	900.00	650.00	400.00	300.00	500.00	500.00	800.00	500.00	450.00	1000.00	1000.00	400.00	900.00	2000.00	600.00	500.00	557.00	451.00	750.00
29,000 ft. b.m. 4-in. wooden sheet piling	60.00	0.60	60.00	45.00	60.00	70.00	90.00	95.00	50.00	60.00	50.00	80.00	80.00	60.00	100.00	125.00	100.00	80.00	57.40	70.00
2000 lin.ft. wooden rail fence	0.35	0.35	0.30	0.40	0.30	0.30	0.18	0.30	0.30	0.25	0.35	0.40	0.45	0.30	0.35	0.30	0.25	0.22	0.21	0.18
Setting iron work (lump sum)	250.00	150.00	100.00	300.00	200.00	100.00	150.00	300.00	100.00	150.00	300.00	100.00	150.00	200.00	500.00	200.00	100.00	50.00	210.00	500.00
Removing stone, timber and iron work (lump sum)	250.00	400.00	150.00	1500.00	750.00	500.00	1200.00	1000.00	500.00	200.00	500.00	300.00	1100.00	1000.00	2500.00	1000.00	1200.00	900.00	700.00	1250.00
Stream control during construction (lump sum)	500.00	500.00	200.00	1000.00	500.00	2000.00	2750.00	1000.00	1000.00	1000.00	1000.00	1000.00	5000.00	1000.00	500.00	1500.00	3000.00	3300.00	1800.00	1000.00
Extended totals	$99,105	$104,994	$107,135	$111,566	$113,858	$115,464	$117,437	$119,139	$120,597	$121,455	$125,710	$127,722	$134,290	$137,462	$137,489	$139,336	$153,883	$154,997	$156,117	$178,961

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

AN INCREASE IN PROPOSED BUILDING

Returns from building inspectors in 21 cities of the Eastern States show an increase in the contemplated building operations in March of this year compared with the same month last year. While the gain is small the progressive improvement which has continued since the first of the year is highly satisfactory. In the same cities the three months building operations show a gain of $7,000,000.

The Central States show a falling off of $3,000,000 in March but this is less than the proportionate loss of the first three months, which was 15%. In the South the effect of low priced cotton is evident but in the Western States an improvement compared with last month is apparent.

EASTERN STATES

	Month of March		First Three Months of Year	
	1915	1914	1915	1914
Albany, N. Y.	$342,855	$947,900	$960,260	$1,297,615
Baltimore, Md.	1,551,311	679,767	3,022,833	1,576,300
Bridgeport, Conn.	502,131	685,061	837,736	967,038
Buffalo, N. Y.	830,000	660,000	1,518,000	1,591,000
Elizabeth, N. J.	96,508	112,579	218,006	183,661
Hartford, Conn.	736,337	481,345	1,027,202	837,397
Hoboken, N. J.	42,500	12,285	374,190	253,849
Jersey City, N. J.	512,916	383,744	969,870	790,545
Newark, N. J.	643,392	321,240	1,938,491	1,922,387
New Bedford, Mass.	587,777	463,510	756,262	944,299
New Haven, Conn.	825,470	425,380	1,632,480	981,454
New York, N. Y.				
Bronx	2,550,825	1,637,325	7,172,175	4,150,155
Brooklyn	3,919,055	3,441,285	6,828,300	8,959,250
Manhattan	4,134,025	6,168,575	16,947,025	11,446,960
Queens	1,792,475	2,231,960	3,933,401	3,822,877
Paterson, N. J.	76,973	100,347	208,085	195,666
Philadelphia, Penn.	5,388,265	5,179,030	8,873,800	8,221,920
Pittsburgh, Penn.	1,006,997	958,616	1,081,102	4,140,221
Reading, Penn.	164,350	171,050	272,525	681,775
Scranton, Penn.	116,974	48,808	197,744	215,462
Springfield, Mass.	570,558	498,968	1,529,358	954,253
Syracuse, N. Y.	519,533	105,960	899,631	226,705
Utica, N. Y.	94,855	37,735	156,430	100,385
*Worcester, Mass.	338,705	306,540	497,836	941,544
Totals	$26,906,982	$25,752,470	$61,354,906	$54,461,173

CENTRAL STATES

	Month of March		First Three Months of Year	
	1915	1914	1915	1914
Akron, Ohio	$375,650	$246,035	$520,345	$582,715
Canton, Ohio	189,250	136,550	259,975	185,020
Chicago, Ill.	7,403,750	8,111,150	16,433,150	17,935,950
Cincinnati, Ohio	1,356,124	863,810	1,307,119	1,761,235
Cleveland, Ohio	4,022,035	4,070,255	6,872,040	6,766,885
Columbus, Ohio	519,200	665,995	757,650	1,070,650
Des Moines, Iowa	119,365	275,750	236,760	440,450
Detroit, Mich.	2,638,020	2,300,355	5,066,515	7,957,465
Duluth, Minn.	159,128	263,541	338,930	648,521
Evansville, Ind.	402,327	107,615	556,812	337,107
Grand Rapids, Mich.	260,429	1,239,253	444,801	1,662,588
Indianapolis, Ind.	889,349	782,384	1,464,006	1,557,664
Kansas City, Kan.	165,285	161,131	256,125	262,126
Kansas City, Mo.	848,595	1,516,380	2,132,805	3,454,595
Milwaukee, Wis.	942,921	694,924	1,555,626	1,616,164
Minneapolis, Minn.	1,372,530	2,093,915	2,669,125	3,096,425
Omaha, Neb.	332,860	321,165	782,035	722,780
Peoria, Ill.	159,175	408,560	386,925	626,360
St. Louis, Mo.	1,268,878	1,450,034	3,064,613	3,212,239
St. Paul, Minn.	822,624	2,343,809	2,318,936	3,229,465
Toledo, Ohio	763,258	556,928	1,755,162	1,398,222
Youngstown, Ohio	206,605	148,295	359,505	302,402
Totals	$25,217,358	$28,575,834	$49,538,960	$58,827,028

SOUTHERN STATES

	Month of March		First Three Months of Year	
	1915	1914	1915	1914
Atlanta, Ga.	$267,417	$561,644	$1,013,174	$1,218,000
Birmingham, Ala.	154,555	236,595	363,443	703,280
Chattanooga, Tenn.	40,865	111,410	103,117	275,505
Dallas, Tex.	147,690	807,213	611,880	1,789,183
Louisville, Ky.	518,100	661,525	1,078,740	1,128,665
Memphis, Tenn.	345,785	370,300	549,473	1,007,145
New Orleans, La.	194,385	230,609	438,707	639,454
Norfolk, Va.	180,694	446,845	473,288	644,445
Richmond, Va.	284,826	539,848	703,850	1,000,119
Tampa, Fla.	95,335	88,630	199,250	348,945
Washington, D. C.	714,826	1,544,778	2,075,987	2,799,779
Totals	$2,944,478	$5,599,407	$7,610,009	$11,554,520

WESTERN STATES

	Month of March		First Three Months of Year	
	1915	1914	1915	1914
Denver, Colo.	$181,130	$311,610	$523,835	$747,133
Oakland, Calif.	500,373	569,291	1,045,357	1,215,006
Salt Lake City, Utah	209,385	307,150	442,740	541,600
Spokane, Wash.	102,660	86,335	216,370	144,505
Tacoma, Wash.	192,450	137,968	308,799	414,793
Totals	$1,185,998	$1,412,354	$2,537,101	$3,063,037

* Not included in totals.

RAILWAYS

✚**Virginia**—Norfolk & Western Ry.—PATTERSON, MORAN & CO., New York, N. Y., has been awarded the contract by this company for constructing a railway from Burkeville to Pamplin, Va., about 36 miles.

West Virginia—Western Maryland R.R.—Surveys have been completed and work will soon be started by this company for the extension of its line from Belington to Fairmont, W. Va.

✚**West Virginia**—Williamsport, Nessle & Martinsburg R.R. This company has awarded the contract for part of its proposed extension from the Potomac River to Martinsburg, to CLAIBORNE, JOHNSTON & CO., Garrett Bldg., Baltimore, Md.

North Carolina—Catawba Falls Ry.—According to press reports this company plans to construct a narrow-gage railway to connect Old Fort and Catawba Falls with the timber lands, a distance of about 6½ miles.

South Carolina—Savannah, Piedmont & Western Ry.—This company has been incorporated to construct a railway from Augusta to Greenwood, S. C., about 60 miles. J. Peyton Clark, Engr., 43 Cedar St., New York, N. Y., is interested.

Florida—Dowling-Shands Lumber Co.—This company is having surveys made for the extension of its line from Green Cove Springs to Starke, Fla., about eight miles. J. E. Brock, Green Cove Springs, is Engr.

Florida—Export Phosphate Ry. & Terminal Co.—Surveys are being made by this company for the construction of its proposed railway from Tampa, Fla., into Polk County. H. L. Pierce, Tampa, is Pres.

Alabama—Henderson-Waits Lumber Co.—Plans are being prepared by this company, according to press reports, for the construction of a railway from Tuscaloosa to its timber lands in Tuscaloosa County, Ala., about 15 miles.

Kentucky—Southern Ry.—Plans are being considered by this company for the extension of its line from Corydon to Palmyra, about seven miles.

Indiana—New York Central R.R.—Plans are being made by this company for the construction of extensive railroad yards at Miller, Ind. These yards will have accommodations for 35,000 cars.

Wisconsin—Hillsboro & Northeastern R.R.—This company has applied to the State Railroad Commission for permission to construct an extension from Hillsboro to Richland Center, Wis., about 28 miles. W. H. Cash, Lisbon, Wis., is Pres.

✚**California**—Minkler Southern Ry.—This company, a subsidiary of the Atchison, Topeka & Santa Fé system, has awarded a contract to the J. J. SMITH CONTRACTING CO., Kansas City, Mo., for the extension of its line from Exeter to Lindsay, about seven miles.

Canada—A resolution has been introduced into the Legislature authorizing the Minister of Railways to construct, lease or acquire any railway or railway work in Quebec, New Brunswick, Nova Scotia and Prince Edward Island, not over 200 miles long, to form part of the government railway system.

New Brunswick—L. Connors, Blacks Harbour, N. B., and H. J. Taylor are interested in the construction of a railway from Pennfield to Beaver Harbor, L'Etang and Blacks Harbour, about eight miles.

✚**Alberta**—Bassons-Coronation Ry.—According to press reports this company has awarded the contract to GRANT, SMITH & McDONNELL, for the construction of its proposed 110-mile railway from Calgary, Alta.

ELECTRIC RAILWAYS

Pawtucket, R. I.—The Pawtucket St. Ry. Co. has applied for a franchise to lay rails on Broad St. over the abandoned roadbed of the New Haven R.R. and relocate its line on Dexter and Barton St. H. W. Sanborn, Providence, is Ch. Engr.

Ayer, Mass.—The Lowell & Fitchburg St. Ry. Co. contemplates the extension of its line on Main St. to connect with the Shirley-Ayer line of the Fitchburg & Leominster St. Ry. L. H. Cushing, Ayer, is Gen. Supt. and Pur. Agt.

Camden, N. J.—The Public Service Ry. Co. has been granted permission to construct an electric railway from Camden to Haddon Heights. R. E. Danforth, Newark, is Gen. Mgr.

Orange, N. J.—The Board of Public Utility Commissioners has granted permission to the Public Service Ry. Co. to extend its lines on Broad, Parkhurst and Scotland St. R. E. Danforth, Newark, is Gen. Mgr.

Waynesburg, Penn.—The Waynesburg & Blacksville St. Ry. Co. plans to start work soon on the completion of its electric railway from Waynesburg, Penn., to Blacksville, W. Va.

Baltimore, Md.—Plans are being considered by the United Rys. & Electric Co. for the extension of its line on Columbia Ave. to Lansdowne. Mason D. Pratt, Baltimore, is Ch. Engr.

Petersburg, Va.—The Petersburg & Appomattox Ry. Co. is making surveys for the construction of its proposed electric railway from Petersburg to City Point. T. M. Wortham, Petersburg, is Pres.

Glennville, Ga.—The East Georgia Ry. Co. has been incorporated to construct an electric railway from Glennville to Adabelle with a branch line from Hagan to Claxton. The incorporators are Henry P. Talmadge, William B. Stillwell, J. K. McIver and J. F. Minis, all of Savannah.

Louisville, Ky.—The Board of Public Works has granted a franchise to the Louisville Ry. Co. to extend its line on West Chestnut St. to Shawnee Park. W. H. McClure, Louisville, is Pur. Agt.

Cleveland, Ohio—The Cleveland Electric Ry. Co. contemplates the construction of an extension to its Payne Ave. line. George L. Radcliffe, Cleveland, is Gen. Mgr.

Ft. Wayne, Ind.—The Ft. Wayne & Northern Indiana Traction Co. is making preliminary arrangements for the extension of its Lewis Street line to the eastern city limits. Samuel W. Greenland is Gen. Mgr. and Pur. Agt.

Galena, Ill.—Surveys will soon be started for the construction of an electric railway from Galena to Freeport. F. J. Meller is Secy. of the Galena Commercial Club.

Kankakee, Ill.—The Kankakee & Urbana Traction Co. is preparing plans for the extension of its line in a northerly direction from Kankakee. William J. Laffell, Urbana, is Gen. Mgr. and Pur. Agt.

Kewanee, Ill.—The Kewanee & Eastern Electric Ry. Co. is making surveys and securing the right-of-way for its proposed electric railway in Kewanee. C. G. Lampman is interested.

Faribault, Minn.—The Southern Minnesota Traction Co. will soon start work on the construction of its proposed electric railway from Faribault to Waseca. H. C. Theopold, Faribault, is interested.

Minneapolis, Minn.—Plans are being prepared by the Electric Short Line R.R. Co. for the extension of its line from Minneapolis to Faribault and Shakopee. John Westerdahl, Minneapolis, is Ch. Engr.

Minneapolis, Minn.—Frederick W. Cappelen, City Engr., has announced that the project to construct a municipal electric railway has been abandoned for the present.

+Bonner Springs, Kan.—The Kansas City Kaw Valley & Western Ry. Co. has awarded a contract to S. DOLMAN SONS, Topeka, for grading the roadbed for its proposed electric railway from Bonner Springs to Lawrence, about 20 miles.

Oklahoma City, Okla.—According to press reports, the Oklahoma City Interurban Ry. Co. will extend its line from Oklahoma City to Edmund.

Fresno, Calif.—The Fresno Interurban Ry. Co. is preparing plans for the extension of its line to Las Palmas and Clovis.

Riverside, Calif.—The City Council has granted a franchise to the Pacific Electric Ry. Co. to construct an electric railway on Market St. from Magnolia Ave. to connect with the Riverside, Rialto & Pacific Ry. in Riverside. J. McMillan. Los Angeles, is Gen. Mgr.

Vallejo, Calif.—The Vallejo-Benicia Electric Co. announces that the proposition to construct an electric railway from Vallejo to Benicia has been abandoned on account of financial conditions. J. J. Henry is Pres.

Moncton, N. B.—Plans are being considered by the Moncton Tramways, Electric & Gas Co., Ltd., for the extension of its electric railway from Moncton to Fox Creek about four miles. A. A. Armstrong, Farmers Bank Bldg., Pittsburgh, Penn., is Gen. Pur. Agt.

LIGHT, HEAT AND POWER

Reading, Mass.—It is reported that the town has appropriated $4000 for extending and improving the municipal electric-light plant. Arthur G. Sias, 179 Main St., is Mgr. and Supt.

Windsor Locks, Conn.—The Northern Connecticut Light & Power Co. has applied for permission to increase its capital stock from $500,000 to $1,000,000, the proceeds of which will be used for extensions and improvements.

Buffalo, N. Y.—The Shoellkopf, Hartford & Hanna Co., manufacturer of aniline dyes and colors, will build a 45x67-ft. extension to the engine room of its plant at Abbott Rd. and the Buffalo Creek R.R.

La Fargeville, N. Y.—The Village Board has granted a franchise to the Hydro-Electric Power Co., Theresa, N. Y., to extend its transmission lines to supply electrical service to the village. F. L. Santway, Theresa, is Pres. and Mgr.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 11 a.m., Apr. 12, by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., Borough of Manhattan, for installing heating and ventilating apparatus and temperature regulation in addition to Public School 12, Frisby Ave., between Benson Ave. and Overing St., Borough of Bronx.

+New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received Apr. 5 by C. B. J. Snyder, Supt. of School Bldgs., for installing heating and ventilating apparatus in new Public School 55, St. Paul's Pl., between Park and Washington Ave., Borough of Bronx, from: William J. Olvany, $71,630; Wells & Newton, $67,797; Blake & Williams, $68,846; Raisler Heating Co., $75,576; LESLIE & TRACY, INC., 220 West 42d St., New York, $65,670 (awarded contract); James Curran Mfg. Co., $67,580; E. Rutzler Co., $72,247; D. J. Rice, $68,953. The only bid for installing temperature regulation in new Public School 55 was that of the Johnson Service Co., $4498. Noted Apr. 1.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 10:30 a.m., Apr. 22, by the Board of Health of the Department of Health, Centre and Walker St., Borough of Manhattan, for the plumbing and gas fitting and steam heating for a medical staff house and nurses' home on the grounds of the Willard Parker Hospital, foot of East 16th St., Borough of Manhattan. S. S. Goldwater, M. D., is Pres. Bd. of Health.

+New York, N. Y.—(Borough of Manhattan)—Bids were received Apr. 2 by the Board of Trustees, Bellevue and Allied Hospitals, for lighting fixtures in Pavilions "I" and "K" of the new Bellevue Hospital from: INTERNATIONAL GAS & FIXTURE CO., 176 Grand St., New York, $6823 (awarded contract); E. Schroeder Lamp Works, $7948; Wahle Phillips, $8399; Roeser Summer Co., $6873; F. Niebling, $9133. Noted Mar. 25.

Riverhead, N. Y.—The Riverhead Electric Light Co. is building a brick power house, in which will be installed a 140-kw. two-phase 2300-volt generating unit, directly connected. F. Carl Hallett is Mgr. and Supt.

Troy, N. Y.—The Troy Gas Co. has purchased the property of the Kemp & Carr Chain Works on Smith Ave., Troy. The ground measures 240x300 ft., and the gas company plans to build a gas holder with a capacity of 2,000,000 cu.ft. The estimated cost is $100,000.

Utica, N. Y.—It is reported that Yonge & Ames, Arch., is receiving bids for the construction of a brick and tile 31x70-ft. boiler house for St. Luke's Hospital.

Park Ridge, N. J.—It is reported that the Board of Light Commissioners will soon purchase, for the municipal electric-light plant, one gas or oil engine, and a friction-driven pulley for running the alternator from two different prime movers; also some wiring supplies and small apparatus. E. Vernon Smith is Supt. of the plant.

Roosevelt, N. J.—It is reported that the Public Service Electric Co. is having plans prepared for an addition to its substation at Roosevelt.

Erie, Penn.—The Erie Lighting Co. is building a 33,000-volt, three-phase, 60-cycle transmission line from Erie to Corry, to supply electricity to Waterford, Union City, Corry and vicinity. A substation will be built in each of these towns. Fred B. Hofft, Erie, is Vice-Pres. and Mgr. of the Erie Lighting Co.

Hillsdale, Penn.—It is reported that the Pittsburgh Coal Co., Pittsburgh, is having plans prepared for a two-story power house to be built at Hillsdale.

Spencer, N. C.—The city is preparing to install a municipal electric-lighting system. Energy for operating the plant will be secured from the Southern Power Co., Charlotte.

Shelbyville, Tenn.—The plant of the Duck River Power Co. at Shelbyville was recently damaged by fire at a loss of about $15,000. The property was lately purchased by the Tennessee Ry., Light & Power Co., Chattanooga. Noted Feb. 18.

Trimble, Tenn.—It is reported that the establishment of a municipal electric-light plant at Trimble is under consideration. J. W. Dulin is interested.

Cleveland, Ohio—Bids will be received until noon, Apr. 9, by the Commissioner of Purchases and Supplies, 511 City Hall, for switchboard apparatus and electrically operated high tension oil switches for substation for the municipal electric-light department. F. W. Ballard, 1443 East Third St., is Comr. of Light Dept. Thomas L. Sidlo is Dir. of Pub. Ser.

Newark, Ohio—Press reports state that the Ohio Light & Power Co., will begin construction work about Apr. 15 on a high-tension power line between Newark and Thornville, to supply electrical service to the latter village and intermediate points along the right-of-way. The estimated cost of the line is $150,000. H. L. Montgomery, Newark, is Gen. Mgr. of the Ohio Light & Power Co.

St. Marys, Ohio—It is reported that the Village Council has decided to sell the municipal electric-light plant. V. W. Buehler is Supt. of the plant.

Jeffersonville, Ind.—(Official)—Bids will be received until 4 p.m., May 1, by John J. Snyder, City Clk., for lighting the streets and public places of the City of Jeffersonville.

Vincennes, Ind.—The City Electric Lighting Co., controlled by W. S. Barstow & Co., Inc., New York, N. Y., will purchase two 72x18-in. tubular boilers, a breeching stack, 48 in. by 90 ft., and 60 ornamental lamp-posts for five-lamp clusters. Some alterations will also be made in the boiler-room. Felix L. Cadou, Vincennes, is Mgr.

Alton, Ill.—Press reports state that the State Board of Administration will shortly award contracts for the construction of a new power house at the Alton Hospital.

Larchwood, Iowa—Bids will be received until Apr. 21 by W. F. Ashton, Town Clk., for the construction of an electric-light plant. The work includes a concrete block building, oil engine, generator, storage battery, switchboard and a distribution system. Earle D. Jackson, Capitol Bank Bldg., St. Paul, Minn., is Engr. Noted Nov. 12 and Feb. 11.

Lorimor, Iowa—J. F. Smith, who recently secured a franchise from the town, is installing an electric-light and power plant.

Marshalltown, Iowa—It is reported that the Iowa Ry. & Light Co. has appropriated $25,000 for improving and extending its system in Marshalltown. Charles Munson is local Mgr. Noted May 14, 1914.

South Sioux City, Neb.—Bids will be received until noon, Apr. 10, by O. Stamm, City Clk., for the construction of an electric-light plant.

Chouteau, Mont.—The Montana Power Co., Butte, has taken over the electric-light plant of Chouteau, and will operate it as one of its properties. As soon as weather conditions permit, a transmission line will be built from the branch in Sun River Cañon. The line will be 12 miles long. F. M. Kerr, Butte, is Gen. Supt. of the Montana Power Co.

Floresville, Tex.—The City Council has granted a franchise to B. J. Carrico and associates, Ft. Worth, to install and operate an electric-light plant at Floresville. The company will be known as the Floresville Light & Power Co., and will at once equip a plant at an estimated cost of $13,000.

Haskell, Tex.—The Haskell Light & Ice Co. has been organized with a capital stock of $20,000 for the purpose of constructing and operating an electric-light plant and ice factory. Morgan Jones is interested.

Maypearl, Tex.—It is reported that the Texas Power & Light Co., Dallas, is considering the installation of an electric-light plant in Maypearl. A transmission line will be built from the plant at Dallas. F. R. Slater, Dallas, is Gen. Supt. of the Texas Power & Light Co.

Spiro, Okla.—At a recent election, the citizens of Spiro voted in favor of issuing $10,000 in bonds to establish a natural gas system in Spiro. The system will form a unit of the pipe line to be built from the Le Flore County gas fields to Ft. Smith, Ark., where the operators have a contract to furnish gas to the Ft. Smith Light & Traction Co.

Wales, Utah—The Big Springs Electric Co., Fountain Green, Utah, has applied to the Town Council for a franchise to equip and operate an electric-light plant in Wales. John A. Holman, Fountain Green, is Pres. of the Big Springs Electric Co.

Prescott, Ariz.—The Arizona Power Co. has received permission from the Arizona Corporation Commission to sell $250,000 in stock, the proceeds of which will be used for the construction of a 1750-hp. power plant and 20,000 ft. of flume. Work will be begun in April, and completed in 12 months. M. V. Watson is Mgr. of the Arizona Power Co.

Long Beach, Calif.—The Long Beach Consolidated Gas Co. has applied to the State Railroad Commission for permission to issue $100,000 in bonds, of which the proceeds of $80,000 will be used to extend the mains and lines, and $20,000 for improvements to the plant.

✚Pasadena, Calif.—A contract for the construction of a conduit system for carrying electric wires in Terrace and Elevado Drives has been awarded to W. A. McNALLY & CO., 199 East Colorado St., Pasadena, at $7890. The same company, at $14,876, was low bidder for a conduit system in El Molino and Elliott Ave., Alpine and Pinehurst St.

Shelburne, Ont.—It is reported that bids will be asked by the City Council in about a month for constructing a transmission line from Eugenia Falls to Shelburne, and for building a substation. Material will be purchased by the Council.

Revelstoke, B. C.—Bids will be received at once by the City Council for the construction of a power house, and the installation of motors which have already been purchased. The estimated cost of the work is $40,000. Charles R. North is Engr.

BRIDGES

Waterbury, Conn.—It is reported that the City Engineer has been instructed to advertise for bids for the construction of a concrete bridge over the Naugatuck River as soon as the plans are completed. The estimated cost is $80,000. R. A. Cairns is City Engr. Noted Jan. 21.

✚Elma, N. Y.—(Official)—The Town Council has awarded the contract for the construction of a reinforced-concrete arch over Buffalo Creek to KELLY & WHEELER, 150 Park View Ave., Buffalo, at $6350. Noted Mar. 18.

Niagara Falls, N. Y.—The City Engineer has been instructed to prepare plans for repairing the bridge over the hydraulic canal in Second St. It was originally planned to build a new bridge at this point, but since the abolition of the Second St. grade crossing is contemplated, it was deemed advisible to repair the present bridge at this time. F. S. Parkhurst is City Engr.

Oswego, N. Y.—(Official)—At an election held Mar. 30, the citizens of the towns of Oswego and Volney voted in favor of a bond issue for the purpose of building a bridge over the Oswego River at Minetto, N. Y. Plans for the bridge are being prepared by the Concrete-Steel Engineering Co., Park Row Bldg., New York, N. Y. It is expected to begin work in the early summer. Noted Dec. 24.

Hightstown, N. J.—(Official)—Bids will be received until 2:30 p.m., Apr. 13, by the Board of Chosen Freeholders of Mercer County, Court House, Trenton, for repairing the stone arch across Rocky Brook at Main St., Hightstown. John J. Power is Dir. Bd. of Chosen Freeholders. Noted Mar. 25.

✚Newark, N. J.—A joint committee of the Boards of Chosen Freeholders of Hudson and Essex Counties has awarded the contract for rebuilding the fenders of the Jackson St. Bridge between Jackson St., Newark, and Fourth St., Harrison, to the STILLMAN-DELAHANTY & FERRIS CO., 1 Exchange Pl., Jersey City. Noted Mar. 25.

New Brunswick, N. J.—Bids will be received until Apr. 12 by the Board of Chosen Freeholders of Middlesex County for the construction of concrete Bridge No. 50 at Station 94-92 on the Metuchen-Perth Amboy Rd., Woodbridge, and for a concrete culvert at Benner's Corner, Metuchen. Alvin B. Fox, Perth Amboy, is County Engr.

Franklin, Penn.—Bids will be received until 1 p.m., Apr. 13, by the Board of Commissioners of Venango County for bridge construction and repairs. John L. Shaffer, J. T. Wallace and P. H. Culbertson are Comrs.

Gettysburg, Penn.—(Official)—Bids will be received until 10 a.m., Apr. 27, by the Commissioners of Adams County, Gettysburg, and the Controller of York County, for the construction of a reinforced-concrete arch over Beaver Creek, on the road leading from East Berlin to Spring Grove between Adams and York Counties. George W. Baker is Clk. of Comrs. of Adams County. F. S. Bartenschlager, York, is Controller of York County.

Harrisburg, Penn.—It is reported that the State Highway Department has asked the State Legislature to appropriate $175,000 for the construction of a bridge across the Susquehanna River between Dalmatia, Northumberland County and McKee's Half Falls, Snyder County. Edward M. Bigelow is State Highway Comr.

Marcus Hook, Penn.—The Commissioners of Delaware County, Media, have had plans prepared for the construction of a reinforced-concrete bridge over Hook Creek on the Wilmington post road at Marcus Hook. Bids will soon be asked.

Meadville, Penn.—The Supervisors of East Mead Township have rejected all bids for the construction of a concrete bridge, and the bridge will be built by the Township. J. P. Williams is Township Secy. Noted Mar. 11.

Reading, Penn.—(Official)—Bids will be received until 10 a.m., Apr. 13, by D. K. Hoch, Controller of Berks County, for the construction of a reinforced-concrete slab bridge over Hay Creek, at White Bear, Robeson Township.

★Cumberland, Md.—(Official)—Bids will be received until 9:30 a.m., Apr. 12, by the Mayor and City Council for the construction of the Market St. Bridge over Wills Creek. Alternate bids will be received for a concrete arch of twin spans, or a steel bridge, ends to rest on present abutments. James P. Gaffney is City Engr.

Easton, Md.—Bids will be received until noon, Apr. 13, by the Board of Commissioners of Talbot County for the construction of the Leeds Creek Bridge on the Tunis Mills Rd. It will be of concrete, 300 ft. long, and 20 ft. wide. Joseph B. Harrington is Clk. of County Comrs.

Rocky Mount, Va.—(Official)—Bids will be received until noon, Apr. 15, by the Clerk of the Circuit Court of Franklin County for the construction of a 100-ft. steel bridge with concrete substructure, over the Pig River. The Childrey Co., Richmond, is Engr.-in-Charge.

Rome, Ga.—The citizens of Floyd County will vote Apr. 27 on the question of issuing $285,000 in bonds, of which $260,000 is for the construction of three bridges, and $25,000 to pay the county's half of the cost of the new general hospital in Rome. Two bridges will be of concrete over the Etowah River, and the third one of steel over the Oostanaula River. Noted Dec. 3, Jan. 14 and 28.

Miami, Fla.—The city authorities have engaged Harrington, Howard & Ash, Kansas City, Mo., to prepare plans and superintend the construction of two steel and concrete bridges across the Miami River at 12th St. and Ave. D. They will be of the bascule type with concrete approaches. The estimated cost is $150,000.

✚Knoxville, Tenn.—The Road Commission of Knox County has awarded the contract for the construction of six concrete bridges to J. M. EDINGTON. Plans for the Mascot Bridge over Flat Creek will be prepared by the Commission, and bids will soon be asked.

Akron, Ohio—Bids will be received until 11 a.m., Apr. 12, by the Board of Commissioners of Summit County for the construction of bridges and a culvert in Bath Township. C. L. Brown is Clk. of Comrs.

Cleveland, Ohio—Bids will be received until noon, Apr. 16, by the Commissioner of Purchases and Supplies, 511 City Hall, for the construction of a concrete culvert over Doan Creek. Plans on file with the Park Engineer, 318 City Hall.

Columbus, Ohio—Press reports state that a movement is being started for the construction of a viaduct in Poplar Ave. from Fourth to Buckingham St. over the tracks of the Pennsylvania, Baltimore & Ohio, Big Four, and Norfolk & Western Ry. It will cost approximately $300,000, exclusive of the property to be purchased. The question of a bond issue for the viaduct will probably be submitted to the voters at the November election.

Columbus, Ohio—Bids will be received until May 1 by the Board of Commissioners of Franklin County for the construction of the Agler Bridge over Alum Creek on the Agler Rd., Mifflin Township. It will be a reinforced-concrete arch.

✚Dayton, Ohio—(Official)—The State Highway Commission, Columbus, has awarded the contract for the construction of bridges and culverts on the Dayton-Troy Rd., Harrison Township, Montgomery County, to ELLSWORTH BRENTLINGER, Dayton, at $28,882. Noted Mar. 18.

✚Delaware, Ohio—(Official)—The Board of Commissioners of Delaware County has awarded the contract for the construction of four steel bridges to the BELLEFONTAINE BRIDGE CO., Bellefontaine, Ohio. Noted Mar. 18.

Fremont, Ohio—Bids will be received until Apr. 30 by the Commissioners of Sandusky County for the construction of the Tindall Bridge over the Sandusky River in Ballville Township. It will be of steel, two spans. W. F. Schepflin is County Surv. Noted Aug. 27, Oct. 1, Dec. 10 and Feb. 25.

Hubbard, Ohio—The Board of Commissioners of Trumbull County has given notice of its intention to build a bridge in Hubbard, known as the South Main St. Bridge. W. R. Harrington, Warren, is Audr. of Trumbull County.

Tiffin, Ohio—(Official)—Bids will be received until 10 a.m., Apr. 24, by the Board of Commissioners of Seneca County for the construction of two reinforced-concrete bridges, Honey Creek Bridge No. 230 in Eden Township, and Honey Creek Bridge No. 96 in Bloom Township. Each bridge will be 100 ft. long. J. E. Hirshberger is County Audr.

Wauseon, Ohio—(Official)—Bids will be received until 1 p.m., May 3, by the Commissioners of Fulton County for the construction of bridge and abutments over Bean Creek, Franklin Township, and for building abutments for another bridge over Bean Creek. W. V. Ackerman is County Audr.

Valparaiso, Ind.—Bids will be received until 2 p.m., Apr. 10, by C. A. Blachly, Audr. of Porter County, for the removal and the replacing of Dunn's Bridge over the Kankakee River.

Chicago, Ill.—The Committee on Streets and Alleys of the City Council has instructed the Commissioners of Public Works and the City Engineer to draw an ordinance providing for the construction of a bridge over the Chicago River at Franklin St., and a viaduct extending from that point to West North Water St. The estimated cost of the work is $3,000,000. L. E. McGann is Comr. of Pub. Wks.

Beloit, Wis.—Press reports state that the Rockford & Interurban Ry. Co., Rockford, Ill., will build a 1000-ft. interurban bridge at once over the Rock River just north of Beloit. It is understood that the bridge will be constructed by the company's own forces. W. S. Hubbard, Rockford, is Ch. Engr. of the Rockford & Interurban Ry. Co.

✚Racine, Wis.—The Highway Commissioner of Racine County has awarded the contract for the construction of a new concrete bridge at Horlick's Dam to W. P. GALLOWAY at $6985. There were seven other bids, the highest of which was $9948. James Mutter is County Highway Comr.

✚Des Moines, Iowa—(Official)—The Board of Supervisors of Polk County has awarded the contract for the construction of four reinforced-concrete bridges to N. M. STARK & CO., Des Moines, at $16,000. H. G. Curtis is County Engr. Noted Mar. 25.

Eureka, Kan.—It is reported that bids will be received some time in April for the construction of a bridge over Walker's Run near the Atchison, Topeka & Santa Fé Ry. station. Plans have been prepared by the City Engineer.

Whiting, Kan.—Bids will be received until 10 a.m., Apr. 14, by J. M. Ryan, Secy., Straight Creek Drainage District, for bridge construction. Plans on file with H. B. Walker, Drainage Comr., Manhattan, Kan.

✚Kearney, Neb.—(Official)—The Board of Commissioners of Buffalo County has awarded the contract for bridge construction and repair during the ensuing year to the OMAHA STRUCTURAL STEEL WORKS, Omaha. E. H. Morley is County Engr. Noted Mar. 18.

✚Kansas City, Mo.—It is reported that the Chicago, Burlington & Quincy R.R. has awarded the contract for the superstructure of a bridge to replace the old Hannibal Bridge, to the UNION BRIDGE & CONSTRUCTION CO., Kansas City. The bridge will be subject to the approval of the War Department. C. H. Cartlidge, Chicago, Ill., is Ch. Bridge Engr. of the Chicago, Burlington & Quincy R.R.

Corsicana, Tex.—(Official)—The Commissioners Court of Navarro County has decided to build 15 new bridges during the year at an approximate cost of $25,000. R. R. Owen is County Judge.

Giddings, Tex.—Press reports state that the Commissioners Court of Lee County is receiving bids for the construction of two bridges across the Colorado River in the county.

Seabrook, Tex.—The Commissioners Court of Galveston County, Galveston, is having plans prepared for a bridge across Clear Creek at Seabrook on the line between Galveston and Harris Counties. It will be a lift bridge with pile trestle approaches. The estimated cost is $12,000. C. A. Sias is County Engr.

Malaga, Wash.—The Great Northern Ry. is having plans prepared for the construction of a reinforced-concrete bridge across the Columbia River near Malaga. The estimated cost is $300,000. A. H. Hogeland, St. Paul, Minn., is Ch. Engr.

Seattle, Wash.—It is reported that bids will be asked about May 15 for the construction of the bridges across Lake Washington Canal. Bids must be made according to plans prepared by A. H. Dimock, City Engr. The 15th Ave. Bridge is estimated to cost $479,500, the Fremont Bridge about $350,000, while the estimate for the 20th Ave. bridge is not yet completed. The City of Seattle, King County, and the Puget Sound Traction, Light & Power Co. will each pay a part of the cost. Noted Dec. 3 and 10; Jan. 7, 21 and 28; Mar. 18.

South Prairie, Wash. — (Official)—Bids will be received about Apr. 15 by the Commissioners of Pierce County, Tacoma, for the construction of a 60-ft. pony truss bridge on concrete piers, and 145 ft. of trestle at South Prairie. David H. White, Tacoma, is County Engr.

Cascadia, Ore.—The Board of Commissioners of Linn County, Albany, is having plans prepared for the construction of a 115-ft. bridge over the South Fork of the Santiam River at Cascadia.

✚Vale, Ore.—The Board of Commissioners of Malheur County has awarded the contract for the construction of a bridge over the Snake River to the COAST BRIDGE CO., Portland, at $23,000. The structure will consist of two 150- and two 160-ft. spans, three tubular piers and two concrete abutments. Noted Mar. 4.

Eureka, Calif.—Bids will be received until 2 p.m., Apr. 13, by the Board of Supervisors of Humboldt County for the construction of two highway bridges in Road District No. 5. Fred M. Kay is Clk. Bd. of Superv.

Napa, Calif.—Bids will be received until Apr. 14 by the Board of Supervisors of Napa County for the construction of a stone arch over Huichica Creek in Road District No. 13.

Watsonville, Calif.—The City Trustees of Watsonville and a committee from Monterey County have approved plans prepared by Leonard & Day, Rialto Bldg., San Francisco, for a five-span reinforced-concrete bridge over the Pajaro River at this point. It will cost $35,500. H. B. Kitchen is City Engr. Noted Aug. 13.

Victoria, B. C.—It is reported that plans for the construction of a bridge to cost about $750,000, have been prepared and approved. A bylaw providing for its construction will be drawn and submitted to the rate-payers. W. J. Dowler is Clk. of City Council.

WATER SUPPLY—IRRIGATION

Southport, Maine—(Official)—Bids will be received until 8 p.m., Apr. 13, by G. F. Drew, Clk., for material for the construction of water and sewer systems. The J. B. McCrary Co., Atlanta, Ga., is Engr. Noted Mar. 25 under Scarboro.

Greenville, N. H.—Plans are being prepared for the construction of about four miles of 4-in. water mains and a standpipe. The estimated cost is $15,000. H. J. Taft is Water Comr. Noted Apr. 30, 1914 and Mar. 25, 1915.

Boston, Mass.—Bids will be received until Apr. 13 by the Public Works Department for laying 14,000 ft. of 4- to 16-in. water mains in various streets. L. K. Rourke is Comr.

Boston, Mass.—Bids will be received until Apr. 16 by the Metropolitan Water and Sewerage Board for the construction of a masonry tower around the steel tank on Mt. Bellevue Ave., West Roxbury District.

✚Boston, Mass.—The contract for specials for the High Pressure Fire Service has been awarded to DAVIS & FARNUM MFG. CO., at $57 per ton. D. F. Doherty is Supt. of Supply Dept. Bids opened Mar. 19. Noted Mar. 18.

Brookline, Mass.—At an election, held Mar. 23, the citizens voted in favor of issuing $200,000 in bonds, the proceeds of which will be used for the construction of a covered filter and basin for the water system. Philip S. Parker is Chn. Bd. of Selectmen. Noted Dec. 17 and Feb. 4.

Dartmouth, Mass.—An appropriation of $50,000 has been made by the Council for the construction of a water system.

Hartford, Conn.—The State Legislature has granted permission to the city to issue bonds for $2,000,000, the proceeds of which will be used for construction of the Nepaug system.

Gates, N. Y.—Bids will soon be received by the Water Commissioners for constructing a water system. The estimated cost is $30,000. H. C. Kittredge, German Insurance Bldg., Rochester, is Engr.

Hilton, N. Y.—A survey and estimate for the installation of a water system has been authorized by the village.

New York, N. Y.—(Borough of the Bronx)—(Official)—Bids will be received until 2 p.m., Apr. 14, by William Williams, Comr. of Water Supply for water mains in Bailey, Cedar and Sedgwick Ave., East 184th and East 225th St. and in Fordham and Kingsbridge Rd. and in Harlem River Terrace.

✚New York, N. Y.—(Borough of the Bronx)—(Official)—The contract has been awarded to L. D. GREGORY, 212 West 138th St., at $19,680, for laying water mains in Southern Blvd. Noted Mar. 4 and 18.

New York, N. Y.—(Boroughs of Manhattan and the Bronx)—(Official)—Bids will be received until 2 p.m., Apr. 12, by William Williams, Comr., Water Supply, Gas & Electricity, for c.-i. pipe, specials and valve box castings, valves and double nozzle fire hydrants and for pipe, valves and fittings for watering hydrants for horses.

Oakfield, N. Y.—(Official)—H. C. Kittredge, Rochester, has been retained by the Village Board of Trustees to prepare plans for the construction of a municipal water system, bids for which will be received in the early part of the summer. Noted Apr. 1.

✚Asbury Park, N. J.—(Official)—The contract has been awarded to PARTRIDGE & BURKE, Hohokus, at $1.05 per ft. for 8-in. c.-i. pipe across Deal Lake.

Caldwell, N. J.—An election will be held Apr. 27 to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the extension of the water system in West Caldwell.

Camden, N. J.—The construction of an auxiliary water station at Delair has been recommended by the Finance Committee of the Council. The estimated cost is $50,000.

East Orange, N. J.—Bids will be received until 8 p.m., Apr. 12, by A. A. Reimer, Secy. Water Comrs., for centrifugal pumps and condensers for the water system.

★Perth Amboy, N. J.—Bids were received Mar. 24 by the Board of Water Commissioners for the installation of a 12,000,000-gal. pump at the Runyon pumping station as follows: Turbine Equipment Co., New York, N. Y., $20,600; Nordberg Mfg. Co., Milwaukee, Wis., $29,900; Allis-Chalmers Mfg. Co., Milwaukee, Wis., $32,205; Epping-Carpenter Pump Co., Pittsburgh, Penn., $34,940; Hooven, Owen, Rentschler Co., Hamilton, Ohio, $36,700 and the William Tod Co., Youngstown, Ohio, $39,965. S. J. Mason is City Engr. Noted Feb. 18.

Wildwood, N. J.—The city plans to buy the plant of the Wildwood Water Works Co., at $554,000. Robert J. Kay is representing the city. Noted Oct. 15.

Erie, Penn.—(Official)—E. W. Humphreys, Supt. of Water Wks., states that the construction of a reservoir will not be undertaken this year. Noted Mar. 18.

Hatfield, Penn.—Bonds for $16,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system. Ralph Schafenacker, North Wales, is Engr.

Ridgway, Penn.—The capacity of the filtration plant will be doubled at an estimated cost of $11,000.

Sykesville, Penn.—(Official)—Bids will be received until Apr. 12 by the Town Council for constructing a water system. E. W. Hess and A. B. Barton, Deposit National Bank Bldg., Dubois, is Engr. Noted Sept. 24 and Nov. 26, 1914.

★Kensington, Md.—According to press reports all bids received Feb. 20 for the construction of water and sewer systems have been rejected. Noted July 9 and Dec. 17, 1914 and Mar. 4, 1915.

Laurel, Md.—Bids will soon be received for the construction of a municipal water system. The estimated cost is $70,000. H. Stevens, Union Trust Bldg., Washington, D. C., is Engr. Noted June 4, 1914 and Jan. 7, 1915.

Elm City, N. C.—The city has voted bonds for $7000, the proceeds of which will be used for the construction of water and sewer systems. Clarence Winstead is Town Clk.

Southport, N. C.—Bids will be received about Apr. 12 by Henry Hagen, City Engr., for constructing a water system. The estimated cost is $24,000. The J. B. McCrary Co., Atlanta, Ga., is Engr. Noted Feb. 18 and Mar. 25.

East Lake, Ga.—(Atlanta post office)—An election will be held May 6 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for construction of water and sewer systems. Noted Sept. 17, 1914.

Royston, Ga.—Bonds for $15,000 have been voted by the citizens, the proceeds of which will be used for the construction of water and sewer systems. Noted Aug. 13.

Vicksburg, Miss.—The citizens voted in favor of purchasing the water system for $200,000. Work on the construction of the municipal water system will be suspended. A. M. Paxton is Clk. Noted Nov. 12.

Cleveland, Ohio—Bids will be received until noon, Apr. 16, by the Commissioner of Purchases and Supplies, for operating tables at the filtration plant at the Division pumping station. Specifications are on file with Charles F. Schultz, Comr. of Water Dept. Noted Mar. 18.

Fostoria, Ohio—(Official)—Bids will be received until noon, Apr. 20, by the Director of Public Service, for constructing a 175,000,000-gal. reservoir. Charles Laltshaw is Engr. Noted Mar. 25.

Monroeville, Ohio—The installation of a filtration plant is under consideration by the Board of Public Affairs.

Port Clinton, Ohio—According to press reports bids will be received until Apr. 12 by William H. Williams, Village Clk., for purchase of $10,000 in bonds. The proceeds will be used for the rebuilding of pumps for the water-works pumping station. Noted Mar. 4.

Zanesville, Ohio—Plans have been prepared by the W. J. Sherman Co., Toledo, Ohio, for the improvement of the water system. The estimated cost is $248,118. Noted Dec. 24 and Jan. 14.

South Bend, Ind.—One of the water-works pumping stations will be transferred from the west to the east bank of the St. Joseph River. The estimated cost is $15,000. J. W. Foyne is Supt. of Water Wks.

Detroit, Mich.—Screen chambers will be installed on the intake lines to the pumping station by the Board of Water Commissioners. Theodore A. Leisen is Engr. Estimated cost, $20,000.

Chicago, Ill.—Bids will be received by L. E. McGann, Comr. of Pub. Wks., until 11 a.m., Apr. 10, for shafts, low pressure steel pipe, rubber gaskets and machine bolts at the Wilson Ave. tunnel.

Joliet, Ill.—The City Council plans to construct a new distributing system at an estimated cost of $51,167. C. D. O'Callahan is Supt. of Water Wks.

+Rock Island, Ill.—The contract for laying water mains in 16th, 17th and Aiken St. has been awarded by the city to P. F. TRENKENSCHUH, Rock Island, at about $9000.

Stronghurst, Ill.—Bids will be received until 1 p.m., Apr. 15, by the Board of Local Improvements for constructing a distributing system. W. S. Shields Co., 1201 Hartford Bldg., Chicago, is Engr. Noted Oct. 29.

Beloit, Wis.—The Beloit Water, Gas & Electric Co. has been authorized by the Wisconsin Commission to issue bonds for $100,000. The proceeds will be used for extensions to its system.

+Elkhorn, Wis.—The contract has been awarded to the F. M. GRAY ARTESIAN WATER SUPPLY CO., Milwaukee, at $5000 for drilling an artesian well and making connections to the water system. Noted Oct. 22.

Wittenberg, Wis.—A bond election will soon be held to vote on the question of issuing $12,000 in bonds, the proceeds of which will be used for construction of a water system for fire protection. The plans include a 40,000-gal. tank on an 80-ft. tower, 6000 ft. of 6- and 8-in. mains and wells. I. J. Nelson is Secy. W. G. Kirchhoffer, Madison, is Engr. Noted Mar. 4.

Marcus, Iowa—Bonds for $25,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system.

Spillville, Iowa—At a recent election the citizens voted in favor of installing a water system.

Duluth, Minn.—The construction of a 1,000,000-gal. reservoir has been authorized by the City Council. D. A. Reed is Mgr. The estimated cost is $14,000. Noted Mar. 11.

Virginia, Minn.—(Official)—Bids will be received until 8 p.m., Apr. 19, by the Water & Light Commission for motor driven pumping equipment. J. W. Murphy is Secy.

+Fredonia, Kan.—Contracts have been awarded by C. B. DeTar, Supt. of Water Wks., for improvements to the water system as follows: KANSAS PAVING & CONTRACTING CO., Dodge City, at $17,842, for making improvements; MERKLE-HINES MACHINERY CO., Kansas City, Mo., at $6250, for two triplex pumps; NEW YORK CONTINENTAL JEWELL FILTRATION CO., New York, N. Y., at $6975; for mechanical filter equipment; HADLEY-HUDSON CO., at $1255, for one 90-hp. water turbine and WESTINGHOUSE ELECTRIC CO., Pittsburgh, Penn., at $2048, for one generator. Bids opened Mar. 22. Noted Nov. 26 and Mar. 18.

Ceresco, Neb.—Bonds for $10,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system. Grant & Fulton, Security Mutual Bldg., Lincoln, is Engr. Noted Feb. 25.

Fordyce, Neb.—Bids will be received until Apr. 20 by L. S. Wise, Village Clk., for constructing a water system. J. D. C. Smith, Hartington, is Engr. Noted Oct. 8.

Lemmon, S. D.—(Official)—Bids will be received about Apr. 19 for the construction of extensions to the water system. Plans have been prepared by Charles L. Pillsbury Co., Minneapolis, Minn. Noted Sept. 3.

Marion, S. D.—The town contemplates installing a municipal water system.

+Laramie, Wyo.—Contracts have been awarded for pipe and lead for the water system by the Council to HENRY BOLTHOFF CO., Denver, Colo., and to the M. J. O'FALLON CO., Denver. Total amount of contracts $41,000. Noted Feb. 4.

Medicine Lake, Mont.—Bids will be received until Apr. 12 for the purchase of $18,000 in bonds, the proceeds of which will be used for the construction of a water system. Noted Sept. 24.

Springfield, Mo.—R. L. Pate, Mgr. and H. B. McDaniel, Treas., of the Springfield Water Co., will soon be in the market for electrical pumping machinery for its deep wells. The estimated cost is $30,000. Noted Dec. 31.

Little Rock, Ark.—The Arkansas Water Co. plans to construct a 5,000,000-gal. receiving reservoir, three wells and install a motor-driven centrifugal pump. A. M. Lyon is Pres.

Pocahontas, Ark.—The construction of a water system is under consideration by the city.

Ballinger, Tex.—Surveys have been made by C. L. Stanley for the construction of a dam across the Colorado River and for irrigation canals for an irrigation system which he and associates plan to build.

San Antonio, Tex.—Bids will be received Apr. 15 by the Commissioners Court for the construction of a water system, a power plant and a laundry at the new County Home for the Aged.

Timpson, Tex.—Bids will be received about June 1 for the construction of a water system, estimated to cost $17,000. Henry E. Elrod, Dallas, is Engr. Noted Aug. 20, 1914 and Mar. 25, 1915.

McAlester, Okla.—(Official)—The city plans to construct a gravity water pipe and dam. The pipe line will be ten miles long. J. M. Gannaway is City Clk. Noted Dec. 10.

Craig, Colo.—The citizens contemplate constructing a water system at an estimated cost of $40,000.

Montrose, Colo.—Bids will be received about May 1 by the city for the construction of extensions to the water system. Burns & McDonnell, Kansas City, Mo., is Engr. P. W. Pinkerton is City Mgr. Noted Feb. 18 and Mar. 11 and 25.

Sugar City, Colo.—The village contemplates constructing a water system at an estimated cost of $15,000. F. J. Keath is Clk.

Ogden, Utah—Bids will be received until Apr. 13 by Washington Jenkins, City Engr., for constructing a pipe line as follows: 28,700 ft. of trench, laying 18,400 ft. of pipe and constructing an intake. Pipe furnished by the city. Noted Jan. 21 and Feb. 11.

Ogden, Utah—Bids will be received until 10 a.m., Apr. 19, by F. O. Stanford, City Recdr., for 18,400 ft. of 24-in. Matheson joint pipe.

Salt Lake City, Utah—(Official)—Bids will be received until 10 a.m., Apr. 21, by Karl A. Scheid, City Recdr., for constructing a dam at Twin Lakes, Big Cottonwood Cañon. The estimated cost is $75,000. The work includes the following: Rubble concrete dam, 65 ft. high (9100 cu.yd.) or a reinforced-concrete dam (4000 cu.yd.); 1000 cu.yd. of excavation. S. Q. Cannon is City Engr. Noted Oct. 22 and Mar. 18.

+Salt Lake City, Utah—The contract for cleaning five miles of water mains has been awarded to the NATIONAL WATER MAINS CLEANING CO. at $7702, by the City Commission.

Kirkland, Wash.—Bids will be received until Apr. 19 by J. F. Courtright, Town Clk., for constructing a water system, the estimated cost of which is $15,000. Reitze, Storey & Duffy, Northern Bank Bldg., Seattle, is Engr. Noted June 18 and Dec. 10.

Prescott, Wash.—An election will be held Apr. 19 to vote on the question of issuing $15,000 in bonds, the proceeds of which will be used for the improvement of the water system.

Seattle, Wash.—The City Council has approved plans for the construction of a 24-in. water main in Third Ave. W. The estimated cost is $12,000.

+Tacoma, Wash.—The contract has been awarded by the Metropolitan Park Board to the WASHINGTON PIPE & FOUNDRY CO., Tacoma, at $8904, for wood stave pipe 6- to 10-in.

North Powder, Ore.—An election will be held Apr. 19 to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for the construction of a municipal water system.

+Reedley, Calif.—The contract has been awarded by the Board of City Trustees to the DOAK GAS ENGINE CO., San Francisco, for the installation of a pump and engine for the auxiliary water system. Noted Dec. 17 and Mar. 4.

San Bernardino, Calif.—William Starke, Supt. Water Wks., has prepared plans for the construction of a 20-in. water main from the Antil pumping station to Base Line and Waterman Ave., about 4500 ft.

Winters, Calif.—The City Trustees have authorized the erection of a 100,000-gal. steel tank in connection with the water system.

Ottawa, Ont.—The Legislature has approved of the construction of a pipe line, estimated to cost $360,000. R. L. Haycock, City Hall, is Engr. Noted Nov. 19 and Jan. 14.

Toronto, Ont.—According to press reports extensions will be made to the filtration plant on Centre Island. The estimated cost is $78,000.

SEWERS

Boston, Mass.—The City Council has appropriated $600,000 for the construction of new sewers and the reconstruction of a number of wooden drains.

Boston, Mass.—Bids will be received by the Dept. of Public Works until Apr. 9 for constructing sewers and drains in Granite Ave. and Ridgewood St. L. K. Rourke is Comr.

Fall River, Mass.—The Council has appropriated $85,000 for constructing sewers.

New Britain, Conn.—The city has sold $90,000 in bonds, the proceeds of which will be used for the construction of sewers.

South Manchester, Conn.—The city contemplates constructing about 3000 ft. of 12-in. to 33-in. pipe sewer. The estimated cost is $5800. J. Frank Bowen is City Engr.

Gloversville, N. Y.—Bids will be received until Apr. 20 by C. J. Mahoney, City Clk., for the construction of 5435 ft. of 20-, 18-, 15- and 12-in. vitrified sewer. H. J. Hammer is City Engr.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Mar. 25 for sewerage work in Prospect Park as follows: C. F. Metzinger & Co., 356 Broadway, at $15,022 was low bidder; J. W. Heller, $16,718; Murphy Bros., $28,533; Lawrence Construction Co., $20,809; Lincoln Steel Flemming and Joseph A. Morrison, $17,956; Joseph Jennings, $25,125; Norton & Gorman, $20,755; H. E. Fox Construction Co., $24,061; Rosenthal Engineering Co., $20,809; D. Donegan, $17,956; and J. C. Schrade, $25,025. Noted Mar. 18.

New York, N. Y.—(Borough of Manhattan)—(Official)—The Melrose Construction Co., 147 East 125th St., at $4773, was low bidder for sewerage work in 111th St. near Second Ave. Bids opened Apr. 5. Noted Apr. 1.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m., Apr. 14, by Maurice E. Connolly, Borough Pres., for constructing receiving basins at Thompson Ave. and Meadow St., and constructing sewers in Britton Ave., Ketcham St., Grove St. and Fairview Ave.

Syracuse, N. Y.—The Syracuse Intercepting Sewer Board contemplates installing sprinkling filters and Imhoff settling tanks at the sewage-disposal plant.

Gloucester, N. J.—(A correction)—Peugh & Hubbard, Philadelphia, Penn., has been retained by the City Council to prepare plans for the construction of a sewage-disposal plant. Noted Dec. 3 and Apr. 1.

Haddonfield, N. J.—See item under "Streets and Roads."

Millville, N. J.—The Board of City Commissioners contemplate constructing a storm sewer. Estimated cost $19,000.

+Newark, N. J.—The contract has been awarded to CAPDELL & ROMANA, Montclair, for the construction of a sewer in Amsterdam St. Estimated cost, $4002.

Newport, Penn.—Bids will be received until 7 p.m., Apr. 10, by P. G. Hertz, Secy. of Town Council, for the construction of a 24-in. sewer in Oliver St.

+Pittsburgh, Penn.—The contract for the construction of a 20-in. and a 24-in. terra-cotta pipe and an 86-in. brick relief sewer in Greenwood St. has been awarded to the THOMAS CRONIN CO., at $4864.

+Pittsburgh, Penn.—The contract for the construction of a relief sewer in Bayard and Melville St. has been awarded to R. D. THOMAS & CO., at $11,256.

Scranton, Penn.—The city contemplates the construction of a sewer system for the First, Second and Third Wards, estimated to cost $190,234, a sewer system for the 21st Ward, estimated to cost $170,749, and a sewer for the 14th Ward, estimated cost, $3229.

+Baltimore, Md.—The Board of Awards has awarded the contract for the construction of a sewer in Baltimore St. to the M. O'HERRON & SONS CO., at $29,952. Bids opened Mar. 31.

Baltimore, Md.—Bids will be received by the Sewerage Commission until 11 a.m., Apr. 14, for Section 1 for Gwynns Falls interceptor. About 4000 ft. of 30-in. sewer will be constructed. Calvin W. Hendricks is Ch. Engr.

Frederick, Md.—Bids have been rejected for the sewerage work. Bids will be readvertised. See item under "Streets and Roads." Noted July 16.

★Kensington, Md.—See item under "Water Supply—Irrigation."

+Huntington, W. Va.—The contract has been awarded to HARRISON & DEAN for constructing sewers in 17th and 22d St. and in various alleys. Bids opened Mar. 22. Noted Mar. 18.

Charlotte, N. C.—(Official)—Dunn & Lalland Bros., Birmingham, Ala., will probably be awarded the contract for the construction of a sewer to be known as the east trunk outfall. S. H. Lea, City Engr. Noted Mar. 11.

Georgetown, S. C.—Bids will be received until Apr. 14 by R. M. Barnes, Chn. of Commissioners of Public Works, for extending the sewer system. E. W. Chisolm, Jr., Clark Law Bldg., Columbia, is Engr.

Greenville, S. C.—An election will be held Apr. 20 to vote on $25,000 in bonds for extending the sewer system.

+LaFayette, Ga.—The contract for the construction of a sewer system has been awarded to the J. B. McCRARY CO., Atlanta, at $17,500. Bids opened Apr. 12. Noted Sept. 24 and Oct. 11.

+Macon, Ga.—C. F. PEANE has been awarded the contract for the construction of a sewage-disposal plant for the Tybee District sewer system. Bids opened Mar. 16. Noted Mar. 11.

Richland, Ga.—The citizens have voted $15,000 in bonds for constructing sewers. Noted Feb. 4.

+Pablo Beach, Fla.—The contract for the construction of a sewer system has been awarded to T. D. GRIFFIN, Jacksonville, at $10,356. Bids opened Mar. 20. Noted Oct. 1, Mar. 11 and 18.

Tampa, Fla.—An election will soon be called to vote on a bond issue of $250,000 for sewer work.

Birmingham, Ala.—The city contemplates constructing sanitary sewers in North Birmingham. The estimated cost is $12,500. Julian Kendrick is City Engr.

Birmingham, Ala.—An ordinance has been adopted by the Board of Commissioners for the construction of sanitary sewers in Lincoln City, East Birmingham. The estimated cost is $6000. Julian Kendrick is City Engr.

Okolona, Miss.—Bonds for $58,000 have been sold, the proceeds of which will be used for the construction of a sewer system. Noted Jan. 28 and Mar. 4.

Park City, Tenn.—A bond issue of $25,000 has been authorized, the proceeds of which will be used for sewer and street construction.

+Lexington, Ky.—The City Commissioners have awarded the contract for the construction of the North Main St. sewer to the CAREY-REED CO., at $11,642. Noted Feb. 11 nd Mar. 25.

+Cleveland, Ohio—It is reported that the contract for constructing a sewer in Dugway Brook, has been awarded to the REAUGH CONSTRUCTION CO., at $79,903. Noted Mar. 4.

+Cleveland, Ohio—Bids will be received by the Commissioner of Purchases and Supplies, City Hall, until noon, Apr. 15, for the construction of sewers, in West 105th St., and East 121st St. Plans may be had from Robert Hoffman, City Engr., 405 City Hall.

Columbus, Ohio—Bids will be received by the Director of Public Service until Apr. 20, for the following improvements: Storm sewer in Bulen Ave. from Livingston Ave. to Gault St. Sewer in the first alley west of Bulen Ave. and the first alley east of Bulen Ave. from Mound St. to Kent St.; Sewer in Dupont Ave. from St. Clair Ave. to East terminus; Grogan Sanitary Sewers, Section 1; in the alley north of Dow Ave. from Dougherty St. to the C. C. C. & St. L. Ry.; Grogan Sanitary sewers Section 2 in Twelfth Ave. from Clara St. to Garden Ave.; Grogan Sanitary Sewers, Section 3 in 12th Ave. from the alley west of Dell Ave. to Clark Ave.; Grogan Sanitary Sewers Section 4 in the alley east of St. Clair Ave. from the alley south of Bonham Ave. to the alley north of McClelland Ave.; sewer in the alley east of Parsons Ave. from Olpp Ave. to Hinman Ave.; sewer in the alley north of Reinhard Ave. from 18th St. to Heyl Ave. and sewer in the alley north of Sullivant Ave. from the alley west of Harris Ave. to Hague Ave. Henry Maetzel is City Engr.

Columbus, Ohio—Plans for the tanks, sludge beds, etc., to be installed at the sewage disposal plant, have been approved by George W. Fuller, John H. Gregory and George A. Johnson, Consult. Engrs., New York, N. Y. Henry Maetzel is City Engr. Noted Mar. 11.

Dayton, Ohio—The city has sold $40,300 in bonds for the construction of storm sewers. G. C. Cummin is City Engr.

East Palestine, Ohio—L. E. Chapin, Consult. Engr., Pittsburgh, Penn., has completed plans for a sanitary sewer and sewage disposal plant to cost about $50,000.

Fremont, Ohio—According to press reports, the City Council contemplates constructing sewers in Tiffin, Morrison, Buchanan and other streets. C. A. Hochenedel is City Engr.

+Kent, Ohio—The contract for constructing the sewage disposal plant has been awarded to D. LOWENSHON, Cleveland, at $41,358. R. T. Bailey, Rockwell Bldg., Kent, prepared the plans. Noted Feb. 25.

Mansfield, Ohio—The State Board of Health has approved of plans for the proposed enlargement of the sewage disposal plant. E. A. Barbour and E. G. Bradbury, Mansfield, are the Consult. Engrs.

Marion, Ohio—Bids will be received by H. C. Cass, Dir. of Pub. Service, until Apr. 9, for constructing combined sewer in Main and Park St., sanitary sewer and storm water drain in Uncapher Ave., and a trunk line sanitary sewer cellar drain and trunk line storm water sewer in Park, Short and State St.

Mt. Vernon, Ohio—At a recent meeting of the City Council it was decided to construct sanitary sewers in Braddock Adams and Howards St. R. S. Blinn is City Engr.

Tiffin, Ohio—It is reported that the City Council considers the construction of a river wall sewer to cost $39,000. J. I. Oberlander is City Engr.

Urbana, Ohio—Press reports state that Boyd & Cook, Dayton, Ohio, submitted the lowest bid for the construction of storm sewers in Kenton, Scioto, North Main and Miami St. Charles F. Smith & Co., Dayton, was low bidder for the South Main St. contract.

+Bedford, Ind.—The contract for the construction of a sewer system has been awarded to J. J. QUINN, Bedford, Ind. The estimated cost is $15,000.

Crawfordsville, Ind.—The City will soon construct vitrified pipe sewers to cost about $7819. J. A. Cragwall is City Engr.

Ft. Wayne, Ind.—(Official)—H. P. Moran, Vice-Pres. and Gen, Mgr., Indiana Engineering & Construction Co., Fort Wayne, has been engaged to prepare a report on the construction of a sewage disposal plant. Frank M. Randall is City Engr.

+Indianapolis, Ind.—The contract for the construction of College Ave., sewer, has been awarded by the Board of Works, to the SHEEHAN CONSTRUCTION CO., Indianapolis, Ind. at about $200,000. Noted Mar. 25.

South Bend, Ind.—According to press reports the Board of Public Works will construct a sewer in Michigan St. from Colfax Ave. to Short Navarre St.

Detroit, Mich.—The Council Committee on Sewers has authorized the construction of sewers in Dexter Boulevard to cost about $55,000. R. H. McCormick is City Engr.

+Harbor Beach, Mich.—A contract for sewer construction has been awarded to VICTOR & PETER SAGER, Saginaw, at $28,820. Noted Nov. 19.

Averyville, Ill.—The Board of Aldermen contemplates the construction of a sewer system to cost about $50,000.

Joliet, Ill.—The City Council has passed an ordnance providing for the construction of a sewer in the Third Ward to cost $69,470. C. D. O'Callahan is City Engr.

Lincoln, Ill.—The City Council has decided to construct the McClean St. sewer. The estimated cost is $6209. W. C. Bates is City Engr.

Pana, Ill.—Press reports state that plans have been completed for a sewage disposal plant.

+Kenosha, Wis.—Bids will be received by the Street Assessment Committee, City Hall until 2 p.m., Apr. 23, for the construction of sewers.

Madison, Wis.—Bids will be received by O. S. Norsman, City Clk., until 5 p.m., Apr. 9, for the construction of sewers in Fair Oaks district as follows: Bid No. 1, 37,345 ft. 6-in.; 9328 ft. 8-in.; 8137 ft. 10-in. vitrified pipe; 383 ft. 6-in., c.-i. pipe; 140 ft. 10-in. and 140 ft. of 8-in. c.-i. pipe; 118 manholes, 89 lampholes. Bid No. 2: 6232 ft. 18-in. c.-i. pipe; 2506 ft. 16-in.; 2413 ft., 14-in. and 30 manholes. Bid No. 3: 7347 ft. 6-in. vitrified; 2817 ft. of 8-in., 1422 ft. of 10-in., 2449 ft. of 18-in. c.-i. pipe; 27 manholes; 11 lampholes. The city will furnish cast iron pipe only.

+Cedar Rapids, Iowa—The contract for the construction of three ring brick storm sewers in various streets, has been awarded to PERCY P. SMITH, 127 North Tenth St., Cedar Rapids, at $5388. Noted Mar. 11.

+Grinnell, Iowa—(Official)—The contract for the construction of the disposal plant and outlet has been awarded to the TURNER IMPROVEMENT CO., Des Moines, Iowa, at $35,957. W. F. RILEY was awarded the contract for main sewers at $35,042 and branch and laterals at $31,019. Noted Mar. 25.

+St. Paul, Minn.—The contract for the construction of a sewer in Fairmount Ave. from Pascal to Snelling Ave., and on Snelling Ave. from Fairmount Ave. to St. Clair St. has been awarded to O'NEILL & PRESTON, St. Paul, at $6190. Noted Jan. 14.

Hutchinson, Kan.—Press reports state the City Commission has decided to construct a sewer between Walnut and Main St. Edward Metz is City Clk.

Wichita, Kan.—Property owners have petitioned the City Commission to construct a sanitary sewer in intersecting streets from extreme end of West Third St. to Central Ave. Bert C. Wells is City Engr.

Ravenna, Ne[illegible]s for $22,000 have been sold for the construction of a [illegible]nplete sewer system.

Billings, Mon.—Bids will be received by L. E. Torrence, City Clk., until Apr. 30 for the construction of sanitary sewer, to include 1700 lin.ft. 8-in. sewer, four manholes, one flush tank.

Butte, Mont.—The City Council is considering the repair of a sewer along Arizona St., at an estimated cost of $25,000.

Poplar Bluff, Mo.—The plans of E. C. Thomas, City Engr., for the construction of a sanitary sewer in District No. 2, have been accepted by the City Council. The estimated cost is $19,956.

Little Rock, Ark.—(Official)—Bids will be received until 10 a.m., Apr. 24, by the Board of Commissioners, for constructing about 17,700 lin.ft. of storm and sanitary sewers. Ford & MacCrea is Engr.

Malvern, Ark.—The City will vote on May 26 on a $35,000 bond issue for the installation of a sewerage system. J. B. McCrary Co., Atlanta, Ga. is Engr.

+Ferris, Texas—The City Council has awarded the contract to the DALTON CONSTRUCTION CO., Dallas, for the construction of a sewer system to cost $13,000. Noted Mar. 25.

Lewiston, Idaho—Bids will be received about May 1, for constructing sewers in Dist. No. 6. The estimated cost is $10,500. R. A. Bonnell is City Engr.

Seattle, Wash.—The Board of Public Works will soon call for bids for constructing emergency overflow sewers from the existing north trunk sewer system into Lake Washington Canal.

+Seattle, Wash.—The contract for the construction of sewers in Lakeside Ave. has been awarded to THOMAS SCALZO, 1708 22d Ave. S at $23,959. Noted Mar. 11.

+McMinnville, Ore.—The contract for constructing a sewer system has been awarded to V. R. DENNIS, Lewis Bldg., Portland, at $31,797.

Chino, Calif.—A special election will soon be held to vote bonds for $50,000 for the construction of a sewer system. Plans for the sewer have been prepared by, Olmsted & Gillilen, Engr., Hollingsworth Bldg., Los Angeles, Calif.

+Enterprise, Ore.—The contract for the construction of a sewer system has been awarded to J. H. CHILDS, La Grande, Ore., at $14,958. Noted Feb. 18.

Marysville, Calif.—The city will soon vote on the issue of $18,000 in bonds for extending the drains and improving sewers in the Ellis Lake District.

Napa, Calif.—The lowest bid submitted for the construction of a storm sewer in York St. was from John H. May at $9999.

+San Diego, Calif.—The contract for constructing the Ocean Beach sewer has been awarded to A. C. Hose, at $49,300.

Toronto, Ont.—Bids will be received until Apr. 13 for the construction of sewers on various streets. Specifications are on file at office of R. C. Harris, Comr. of Wks.

Victoria, B. C.—The City Council is considering plans presented by the City Engr. for sewers to cost $150,000. It is expected that work will be started in a few weeks.

GARBAGE

Philadelphia, Penn.—Press reports state that M. L. Cooke, Dir. Dept. Pub. Wks., will receive bids for garbage disposal during 1916.

★+Dayton, Ohio—(Official)—The contract for installing the equipment for the proposed garbage reduction plant has been awarded to the GEM CITY BOILER CO., Dayton, at $11,427. The Bartlett & Snow Co. will furnish the equipment. The contract for installing a fire and steam dryer was awarded to the KILBY MFG. CO., Cleveland, at $2675. Noted Feb. 18.

Chicago, Ill.—The electors will soon be asked to vote on a bond issue of $700,000 the proceeds to be used in remodeling the present reduction works at Iron St. and for completing the new plant at 95th St. For the latter enterprise $170,000 is needed. The second largest item is $120,000 for an addition to the extractor building at the old plant. Then it is proposed to put up a new mill building to cost $105,000.

West Allis, Wis.—The Common Council has voted favorably on the proposition for the establishment of a garbage incinerator. About $7500 will be spent for this purpose.

STREETS AND ROADS

Augusta, Maine—(Official)—Bids will be received until 2 p.m., Apr. 15 by E. E. Newbert, State Treas., for the sale of $500,00 in bonds, the proceeds of which will be used for constructing highways.

Bosten, Mass.—Bids will be received until Apr. 12 by the Public Works Department for improving Dracut, Juliette and Percival St., Dorchester District. L. K. Rourke is Comr.

Boston, Mass.—Bids will be received until Apr. 13 by the State Highway Commissioner for the construction of 10,500 lin.ft. of road in Ashby, and 3800 lin.ft. in Gardner. Arthur W. Dean, 15 Ashburton Pl., is Ch. Engr.

+Boston, Mass.—The contract for paving Commonwealth Ave. with wood block has been awarded to CLARK & GORE at $60,014. Other bids were: James Doherty, $62,074; Rowe Contracting Co., $64,676; Coleman Bros., $65,770; Northern Construction Co., $68,778; John J. Lane, $69,567; John E. Quinn, $69,653; Simpson Bros. Corporation, $71,147; Hanscom Construction Co., $73,988, and John McCourt Co., $79,085. Noted Mar. 18.

+Boston, Mass.—The contract for paving Columbia Rd. with bitulithic has been awarded to JAMES DOHERTY, at $41,260. Other bids were: John L. Kelley, $41,545; Fred S. Gore, $42,120; J. J. McCarthy Co., $42,348; Robert C. Browne, $43,023, and Warren Bros., $44,500. Noted Mar. 18.

Fitchburg, Mass.—Plans have been prepared for macadamizing and paving several streets. The estimated cost of the work is $52,000.

Lee, Mass.—The Town Board contemplates an expenditure of $10,000 for macadamizing Columbia Rd.

+Hartford, Conn.—Contracts [illegible] road work, bids for which were received by the Sta[illegible]way Commissioner, Mar. 22, have been awarded as follows. Wethersfield Township, about 7680 lin.ft. bituminous macadam on Maple, Mill and Prospect St., to B. D. PIERCE, JR. CO., Bridgeport, at $9248. Stamford Township, about 4810 lin.ft. native stone macadam on Long Ridge Rd., to A. BRAZOS & SONS, Middletown, at $6963; Waterbury City, 10,100 lin.ft. 8-in. gravel on Watertown Rd., to the CONNECTICUT GOOD ROADS & CONSTRUCTION CO., New Britain, at $11,422. Noted Mar. 18 and Apr. 1.

Hartford, Conn.—Bids will be received by the Board of Contract and Supply, until 11 a.m., Apr. 13, for laying 20,260 sq.yd. sheet asphalt wearing surface on concrete base on Trumbull, and Village St. and Wethersfield Ave.; for laying about 2100 sq.yd. sheet asphalt in connection with repair of streets; also for laying concrete base and granite block wearing surface of about 1200 sq.yd. on Trumbull St. Specifications on file at the office of Roscoe N. Clark, City Engr.

Norwich, Conn.—Press reports state that the City Council plans an expenditure of $30,000 for constructing sidewalks.

+Waterbury, Conn.—A contract for 175,000 gal. of 45% asphaltic road oil has been awarded to the STANDARD OIL CO., New York, N. Y., at $0.0344 for Grade A and $0.0347 for Grade B. Noted Mar. 25.

+Waterbury, Conn.—The contract for building about 1½ miles of earth highway in the eastern part of Morris Township, in the Valley of the west branch of the Naugatuck River has been awarded to the FRAMINGHAM CONTRACTING CO., South Framingham, Mass., at $14,393. Other bids were: Barbara & D'Aurio, Waterbury, $14,769; B. W. Beard Co., Shelton, $15,948; John De Michael, Torrington, $15,964; Louis Longhi, Torrington, $16,173; Connecticut Good Roads & Construction Co., New Britain, $17,959; Edward Reiley, Waterbury, $18,540. Noted Mar. 25.

Cedarhurst, N. Y.—(Official)—At an election held Apr. 1 the citizens voted in favor of issuing $36,000 in bonds for paving certain streets.

Gloversville, N. Y.—The City Council proposes to lay 10,000 sq.yd. of concrete and 1200 sq.yd. of brick pavement on old macadam. H. J. Hammer is City Engr.

Hudson, N. Y.—Bids will soon be received for paving 6035 yd. with bituminous macadam or concrete. M. O'Hara is City Engr.

New York, N. Y.—(Borough of Bronx)—(Official)—All bids received Mar. 16 by the Borough President for improving Overing St. from Westchester to Walker Ave. were rejected. Noted Mar. 11 and 25.

+New York, N. Y.—(Borough of Bronx)—(Official)—The contract for improving Holland Ave. from Gun Hill Rd. to East 215th St., has been awarded to AMANA & LYONS, 10 Van Cortland Ave., at $9055. Noted Mar. 11 and 25.

New York, N. Y.—(Borough of Brooklyn)—Bids will be received until 3 p.m., Apr. 15, by the Park Board for making improvements by constructing walks in the addition to southerly end of the Brooklyn Botanic Garden. Cabot Ward is Pres. of the Bd.

New York, N. Y.—(Borough of Brooklyn)—Bids will be received until 11 a.m., Apr. 14 by L. H. Pounds, Borough Pres. for improving Gates Ave. from Sumner to Lewis Ave., 18th St. from 11th Ave. to Vanderbilt St., Front St. from Fulton to Adams St. and various other streets.

New York, N. Y.—(Borough of Queens)—(Official)—Bids were received for improving streets as follows. (a) Grand Ave. from Crescent St. to Second Ave., (b) First St. from First to Third Ave., College Point (c) Perry Ave. from Mueller (Fiske) St. to Broad St.; Barber Asphalt Co., (a) $10,259; Uvalde Asphalt Co., (a) $8430; Sicilian Asphalt Co., (a) $8650; Borough Asphalt Co., (a) $20,565; Cleveland Trinidad Paving Co., (a) $10,132; T. F. Tuohy, (b) $5568; D. M. O'Connor, (b) $5244; Pearce Bros. (b) $5458, (c) $28,840; C. Vanderbilt, (b) $5162; H. J. Mullen Contracting Co., (b) $6001, (c) $28,625 (informal); Clancy & Nuhn, (b) $5774; Gifford Construction Co., (b) $5720; Astoria Contracting Co., (b) $5546, (c) $22,688; Queens Plaza Contracting Co., (b) $5399; Burnside Contracting Co., (c) $27,732; Evergreen Construction Co., (c) $25,865; C. A. Myers Contracting Co., (c) $40,602; Anabel Construction Co. (c) $21,856. Noted aMr. 18.

Cape May C. H., N. J.—Bonds for $20,000 have been sold, the proceeds of which will be used for improving roads in Cape May County.

Cranbury, N. J.—The State Road Department, Trenton, is considering the construction of a road from Cranbury to Princeton Junction.

Haddonfield, N. J.—The Board of City Commissioners contemplates an expenditure of $17,000 for resurfacing local streets and extending the sewer system.

+Highlands, N. J.—The contract for paving Bay Ave. has been awarded by the Board of Chosen Freeholders of Monmouth County, Freehold, to CHARLES E. BURD, Red Bank, N. J., at $10,530.

Hopewell, N. J.—Theodore Tobish, County Engr. of Mercer County, is making surveys for the improvement of the Hopewell-Woodsville Rd.

Jersey City, N. J.—Bids will be received until Apr. 22 by the Board of Commissioners from repaving Grove St. from Grand St. to the Hoboken line and Chestnut Ave. from Trenton St. to the southerly line of the Pennsylvania R.R.

Jersey City, N. J.—Bids will be received until 2 p.m., Apr. 22 by the Board of Commissioners for improving Summit Ave. from Jefferson to Carlton Ave. and Elizabeth St. from Waldo to Chestnut Ave.

Keyport, N. J.—Press reports state that the Borough Council plans to improve Broad St. by paving with concrete.

Newark, N. J.—The Board of Chosen Freeholders plans to repave Central, South Orange and Springfield Ave., from Stuyvesant Ave. west to the town line.

Newton, N. J.—The Board of Chosen Freeholders of Sussex County contemplates the improvement of the Baleville-Newton Rd.

Allentown, Penn.—The City Council plans to pave 17th St. from Chew to Liberty St. This is reported to be the first section of a total of about three miles of paving to be laid this season. C. D. Weirbach is City Engr.

Kingston, Penn.—Bids will be received until May 1 by J. Kelly, 446 Hoyt St., for paving Grove Ave., Cooper St., Prengle Borough, at an estimated cost of $10,000.

Rouseville, Penn.—At a recent election the citizens voted in favor of issuing $10,000 in bonds, the proceeds of which will be used for paving Main St.

Easton, Md.—(Official)—Bids will be received until Apr. 13 by the Commissioners of Talbot County for constructing 1.57 miles of State Aid highway upon or along the Tunis Mills Rd., from Unionville to Tunis Mills. J. B. Harrington is Clk. of the Comrs.

Washington, D. C.—See item under "Federal Government Work."

Fairfax, Va.—At a recent election the citizens of Fairfax County Magisterial District voted in favor of issuing $50,000 in bonds, the proceeds of which will be used for road work.

★Charleston, W. Va.—(Official)—Bids were received Mar. 24 for curbing and paving Charleston, Florida, Jackson, Beuregard, Elizabeth, McClung, Kentucky, Quarrier and Jefferson St. and Park, Central, Fourth, Ruffner and California Ave. as follows: R. M. Hudson, Atlanta, Ga., $26,846; Central Engineering Co., Charleston, W. Va., $8550; Federal Asphalt Co., Hamilton, Ohio, $29,310; Carey Reed Co., Lexington, Ky., $18,292 and Glover & Kimberlin, Charleston, W. Va., $35,850. Noted Mar. 11.

✚Huntington, W. Va.—According to press reports A. B. Maupin, Engr., awarded a contract for constructing brick pavement to HARRISON & DEAN, Huntington.

Huntington, W. Va.—At the election to be held in May the citizens of Cabell County will vote on the question of issuing $600,000 in bonds, the proceeds of which will be used for constructing roads. Noted Feb. 18.

Parkersburg, W. Va.—Bonds for $200,000 were sold Mar. 11, the proceeds of which will be used for improving streets. Noted Feb. 25.

Wayne, W. Va.—The Commissioners of Wayne County contemplate constructing about three miles of road. The estimated cost is $40,000. A. D. Williams, Charleston, W. Va., is Engr.

Welch, W. Va.—At the election held Mar. 20 the citizens voted in favor of issuing $165,000 in bonds for constructing roads in Big Creek Magisterial District. Noted Feb. 25.

Greensboro, N. C.—Bids will be received until Apr. 14 for constructing 75,000 sq.yd. of sheet asphalt and asphalt concrete pavement. W. W. Myers is Engr.

Pittsboro, N. C.—(Official)—Bids will be received until noon, May 3, by the Board of Commissioners of Chatham County for the sale of approximately $70,000 in bonds, the proceeds of which will be used for constructing and improving roads in Center and Haw River Townships. C. D. Moore is Chn. Bd. of Comrs.

Plymouth, N. C.—Bids will be received until Apr. 12 by the Board of Commissioners of Washington County for constructing and rebuilding the Plymouth-Pantego Turnpike, about 3½ to 5 miles.

Yadkinville, N. C.—At the election held Mar. 25 the question of issuing $200,000 in bonds, the proceeds of which was to have been used for constructing roads in Yadkin County was defeated. Noted Feb. 25.

Greenville, S. C.—An election will be held Apr. 20 to vote on the question of issuing $100,000 in bonds, the proceeds to be used for improving streets.

Lancaster, S. C.—Bids will be received until Apr. 20 for laying 12,000 yd. of paving. H. S. Jaudon Engineering Co., Savannah, Ga., is Engr.

Sanford, Fla.—Bids will be received until 8 p.m., Apr. 19 for paving 3100 sq.yd. with brick. M. W. Lovell is City Clk.

✚Birmingham, Ala.—The Board of Commissioners Mar. 30 awarded the contract to the BIRMINGHAM PAVING CO., Birmingham, for paving First Ave., from the east end of the viaduct to 41st St., at approximately $28,677. Noted Feb. 25.

Camden, Ala.—At the election held Mar. 20 the question of issuing $25,000 in bonds, the proceeds of which was to have been used for constructing roads and bridges in Wilcox County was defeated. Noted Mar. 18.

Vernon, Ala.—Press reports state that the citizens of Lamar County voted in favor of issuing $150,000 in bonds the proceeds of which will be used for constructing roads. Noted Jan. 7.

New Orleans, La.—(Official)—Bids will be received until noon, Apr. 24, by the Highway Department of the Board of State Engineers, Room 104, New Orleans Court Bldg., for constructing about nine miles of the Abbeville-Kaplan Highway, Vermilion Parish.

Columbia, Tenn.—Bids will be received until Apr. 26 by the Maury County Road Committee for constructing roads in Maury County. J. Trim McKnight is County Judge.

Catlettsburg, Ky.—An election will be held May 1 to vote on the question of issuing $500,000 in bonds, the proceeds of which will be used for constructing roads in Boyd County. J. H. Wade is County Judge.

Hindman, Ky.—Press reports state that the Town Board contemplates an expenditure of $10,000 for improving Main St.

Mt. Vernon, Ky.—At a recent election the citizens of Rockcastle County voted in favor of issuing $100,000 in bonds, the proceeds of which will be used for constructing roads in Rockcastle County. Noted Jan. 25.

Murray, Ky.—An election will be held May 29 to vote on the question of issuing $200,000 in bonds, the proceeds of which will be used for constructing roads in Calloway County.

Bowling Green, Ohio—Bids will be received until Apr. 12 by W. A. Meriner, Dir. Pub. Ser., for grading, paving and curbing Ordway, Ada and Evers Ave.

Canton, Ohio—(Official)—Bids will be received until 10 a.m., Apr. 14, by the Commissioners of Stark County for improving the Navarre-Justus and the Waco-Mapleton Rd. C. L. Stoner is Clk. of the Bd.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Apr. 30, by the Board of Commissioners of Hamilton County for improving various roads in Hamilton County. Fred E. Wesselmann is Pres. of the Comrs.

Columbus, Ohio—Contracts have been awarded by the County Commissioners of Franklin County for the improvement of roads as follows: Souders Rd. in Jefferson Township, THEODORE VOGELSBERG, Columbus, $26,709; Norwich Township Central Rd., W. O. JEWETTS, Worthington, $30,868; Clark Rd. in Jefferson and Mifflin Township, J. M. SNOUFFER, Columbus, $65,934; Dougherty Rd. in Prairie Township, E. WALZ, Columbus, $15,705; Bohm Rd. in Blendon Township, HARNESS RENICK, Williamsport, $26,430.

Kenton, Ohio—(Official)—Bids will be received until noon, Apr. 14 for paving Courtright St. W. E. Myers is Engr.

✚Logan, Ohio—The contract for paving High St. has been awarded to HOUSTON & HENDERSON, at $6000.

Marblecliff, Ohio—(Official)—Bids will be received until noon, Apr. 26, by C. Newhouse, Clk., for improving Cambridge Pl. Ave.

✚Marion, Ohio—The contract for paving West Center St. with brick has been awarded to JAMES C. DRAKE, at $15,000.

Oakharbor, Ohio—Bids will be received until Apr. 27 by Louis L. Cartensen, Clk., for paving Locust St. from the river to the Lake Shore R.R.

Port Clinton, Ohio—Bids will be received until Apr. 26 by D. L. Mackey, Audr. of Ottawa, County, for grading, draining and macadamizing three miles of roads.

Springfield, Ohio—Bids will be received until 7 p.m., Apr. 19, by William H. Mahoney, Clk. of the City Comn., for the sale of $58,233 in bonds, the proceeds of which will be used for improving various streets.

Toledo, Ohio—(Official)—Bids will be received until 10 a.m., Apr. 14, by Charles J. Sanzenbacher, Audr. of Lucas County, for improving Copland Blvd.

Uhrichsville, Ohio—Press reports state that bonds for $20,000 have been sold, the proceeds of which will be used for paving.

Urbana, Ohio—Bids will be received until Apr. 29 by J. W. Rock, Dir. of Pub. Ser., for paving and curbing 6800 lin.ft. of South Main and Miami St.

West Park, Ohio—(Official)—Bids will be received until noon, Apr. 20, by Fred Feuchter, Clk., for constructing sidewalks on Berea, River and Herrington Roads and Nichols Ave.

Huntington, Ind.—(Official)—Bids will be received until 10 a.m., May 6, by the Commissioners of Whitley and Huntington Counties for constructing a county line road. Harold Guthrie is Audr. of Huntington County.

✚Indianapolis, Ind.—The Board of Works has awarded the contract for the paving of Northwestern Ave. to the AMERICAN CONSTRUCTION CO., at $15,031.

Lebanon, Ind.—(Official)—Bids will be received until 1 p.m., May 7 by the Commissioners of Marion, Hamilton and Boone Counties for constructing a county line road. D. M. Clark is Audr. of Boone County.

Coldwater, Mich.—Bids will be received until Apr. 30 by the Commissioners of Branch County for constructing 1½ miles of macadam road in Butler Township.

✚Flora, Ill.—A contract for paving four blocks with vitrified brick has been awarded to SELL & KOLLAR, Pana, Ill., at $16,262.

✚Pekin, Ill.—The contract for paving State and Second St. has been awarded to JANSEN & ZOELLER, Pekin, at $44,076. Noted Mar. 25.

✚Algoma, Wis.—Contracts have been awarded for paving Fourth St. to FRED WULF, Algoma and Fremont St., to GARVEY & WEYENBERG, Kaukauna, Wis., Noted Mar. 25.

✚Fond du Lac, Wis.—Contracts have been awarded for paving Western Ave. and Superior St., to J. RASMUSSEN & SONS CO., Oshkosh, at $9398 and $10,659 respectively; Cottage Ave. and Johnson St., to the MURPHY CEMENT CONSTRUCTION CO., at $2410 and $22,002, respectively.

La Crosse, Wis.—The Board of Public Works will receive bids until 2 p.m., Apr. 24, for asphalt macadam and brick paving on various streets. W. J. Fries, is Comptroller.

Plymouth, Wis.—(Official)—Bids will be received until 8 p.m., May 4, by H. A. Lueake, City Clk., for laying 21,000 sq.yd. of permanent pavement on concrete foundation, 10,745 of curb and gutter and other accessories.

Stoughton, Wis.—L. C. Currier, Secy., will receive bids until noon, Apr. 16, for waterbound macadam paving and combination curb and gutter on parts of four streets.

✚Superior, Wis.—The contract for paving parts of Belknap St. with asphalt has been awarded to JOHN DIFFER, Superior, Wis., at $22,567.

Sturgeon Bay, Wis.—J. C. Langenak, City Clk., will receive bids until 3 p.m., Apr. 12, for furnishing 20,000 gal. No. 4 asphaltum road oil, 40 to 50%, and one air pressure oil distributor of 600-gal. capacity.

West Bend, Wis.—C. P. Heipp, City Clk., will receive bids until Apr. 22 for concrete paving on Main St. from Beeck to Poplar St. and two intersections, together with combination curb and gutter.

✚Sioux City, Iowa—The contract for paving West Riverside Ave. and Iowa St. with concrete has been awarded to JULIUS ORENSEN, Sioux City.

✚Kansas City, Kan.—The contract for repaving Minnesota Ave. from Fourth to Eighth St. has been awarded to GEORGE ROUDEBUSH, at $36,000.

Fairbury, Neb.—The City Council plans to pave various streets with asphalt or brick. E. A. Wunder is Clk.

Blue Springs, Mo.—An election will be held Apr. 14 at which the question of issuing $10,000 in bonds for paving will be submitted to the voters.

✚Kansas City, Mo.—A contract for constructing concrete pavement has been awarded to A. JAICKS, at approximately $20,000.

Sheridan, Ark.—Bonds for $160,000 were sold Mar. 19, the proceeds of which will be used for improving roads in District No. 1.

Brownfield, Tex.—(Official)—We have been advised that the Commissioners of Terry County plan to construct about 30 miles of road by day labor this year.

Brownwood, Tex.—Press reports state that the citizens of Brown County contemplate voting on the question of issuing $60,000 in bonds, the proceeds of which will be used for constructing roads.

Caldwell, Tex.—Bonds for $12,000 have been voted, the proceeds of which will be used for improving the principal streets. M. J. McCombs, Waco, Tex., will be Engr.-in-Charge.

Cuero, Tex.—(Official)—An election will be held Apr. 22 in Precinct No. 1, to vote on the question of issuing $35,000 in bonds, the proceeds of which will be used for constructing approximately 18 miles of road.

Cuero, Tex.—(Official)—An election will be held Apr. 17 in Precinct No. 2, to vote on the question of issuing $50,000 in bonds, the proceeds to be used for constructing about 17 miles of road.

Hondo, Tex.—At a recent election the citizens of Medina County Castroville District voted in favor of issuing $40,000 in bonds, the proceeds to be used for constructing roads.

Houston, Tex.—Press reports state that bids will be received until Apr. 12 by H. L. Washburn, County Audr. for grading the Seller Rd.

Karnes City, Tex.—At a recent election the citizens of Karnes County voted in favor of issuing $75,000 in bonds, the proceeds of which will be used for constructing roads in Precinct No. 1.

Tascosa, Tex.—(Official)—We are advised that Oldham County will spend about $10,000 for the construction of 47 miles of road. William Balfour is Clk. of County Court.

Yoakum, Tex.—The city plans to improve Coke St. from Hubbard to Sheehan St., Hubbard St. from Coke to Gonzales St. and Gonzales St. from Hubbard to Simpson St.

Cushing, Okla.—Press reports state that the city plans to pave approximately 16 blocks of the business district with brick. C. E. Droege is Mayor.

Colorado Springs, Colo.—(Official)—Bids will be received until noon, Apr. 10, by the Board of Commissioners of El Paso County for constructing approximately 1600 lin.ft. of the Ute Pass Rd., State Highway No. 18.

+Colorado Springs, Colo.—A contract for improving the Ute Pass Rd. has been awarded to RIPLEY & LESLIE, Pueblo, at $9000.

Yuma, Ariz.—The Board of Supervisors of Yuma County has sold $500,000 in bonds, the proceeds of which will be used for constructing roads.

Chehalis, Wash.—(Official)—Bids will be received about Apr. 10 by the Commissioners of Lewis County for constructing 1½ miles of concrete road near Curtis. J. D. Neville is County Engr.

Hillyard, Wash.—Morton McCartney, City Engr., of Spokane, will soon prepare plans for paving Diamond Ave. The work will be done during the summer.

Port Orchard, Wash.—The Commissioners of Kitsap County have authorized S. H. Berry, County Engr., to prepare plans for the construction of a road from Colby to Harper, about two miles. The estimated cost is $8000.

Seattle, Wash.—Bids will be received until Apr. 20, by the Board of County Commissioners of King County, for constructing the Redmond-Snoqualmie Rd., to be known as Permanent Highway No. 1. The work will cost about $50,000.

Walla Walla, Wash.—(Official)—Bids will be received until Apr. 20 by M. A. Power, City Clk., for paving South Ninth, North Second, Whitman, Wellington and Palouse St. and Isaacs Ave. Noted Mar. 11.

Oregon City, Ore.—The City Council has authorized the City Engineer to prepare plans for the paving of Main St.

Yamhill, Ore.—At a recent election the citizens voted in favor of issuing $9000 in bonds, the proceeds of which will be used for improving streets. Noted Sept. 14, 1914.

+Elmhurst, Calif.—A contract for constructing macadam pavement has been awarded to D. W. TOFFELMIER, San Leandro, at $19,000.

Fresno, Calif.—Bids will be received by D. M. Barnwell, Clk., Bd. of Supervisors of Fresno County, until 2 p.m., Apr. 14, for approximately 80,000 bbl. of road oil.

+Banning, Calif.—The contract for constructing 22½ miles of highway in Banning to Palm Springs has been awarded by the Commissioners of Riverside County to B. R. DAVISSON CO., Monrovia, at $63,954.

Yuba City, Calif.—The City Trustees plan to pave a number of streets in the near future. Claude Kline is Clk. of the Trustees.

Valleyfield, Que.—The City Council proposes to pave various streets with tarvia and concrete. L. J. Bezer is Clk. of the Council.

Hamilton, Ont.—The Board of Control plans to construct a concrete roadway from Kenilworth Ave. to the Beach filtration plant. The estimated cost of the work is $30,000.

St. Mary's, Ont.—The City Council plans to construct a number of concrete sidewalks this summer. T. M. Clark is Clk. of the Council.

INDUSTRIAL WORKS

+Boston, Mass.—The contract for the construction of a nine-story, 90x122-ft. storage building for the Boston Wharf Co., 259 Summer St., has been awarded to J. M. & C. J. BUCKLEY. The estimated cost is $60,000.

+New Bedford, Mass.—The contract for the construction of a five-story, 110x120-ft. storage building for the Beacon Mfg. Co. has been awarded to the CHARLES B. MAGUIRE CO.

Worcester, Mass.—Bids will soon be received by Armour & Co., Chicago, Ill., for the construction of a three-story cold-storage warehouse at 218 Summer St. Estimated cost, $60,000. Noted June 18.

+Worcester, Mass.—The contract for the construction of a four-story, 48x80-ft. addition at Greendale for the Norton Co. has been awarded to the E. J. CROSS CO. Estimated cost, $25,000.

New York, N. Y.—(Borough of Bronx)—Plans are being prepared by Benjamin W. Levitan, Arch., 20 West 31st St., for the construction of a two-story, 50x200-ft. garage at 966 Prospect Ave. for the Prospect Garage Co. Estimated cost, $50,000.

New York, N. Y.—(Borough of Brooklyn)—Plans are being prepared by Cannella & Gallo, Arch., 60 Graham Ave., for the construction of a four-story, 45x95-ft. factory for F. Tomasso, 279 Bushwick Ave. Estimated cost, $20,000.

New York, N. Y.—(Borough of Manhattan)—John M. Baker, Arch., 9 Jackson Ave., Long Island City, is preparing plans for alterations to the five-story, 50x100-ft. factory for the Tegetmeier & Riepe Co., 771 First Ave. Estimated cost $25,000.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by J. P. Wiskeman, Arch., 30 East 42d St., for the construction of a four-story, 78x101-ft. garage for T. Smith, 2391 Walton Ave. The estimated cost is $60,000.

New York, N. Y.—(Borough of Queens)—Plans are being prepared by John M. Baker, Arch., 9 Jackson Ave., for the construction of a five-story, 50x100-ft. reinforced-concrete factory on Jackson Ave., for the Auto Supply & Equipment Co. Estimated cost, $50,000.

Rensselær, N. Y.—(Official)—Plans are being prepared by C. F. Makepeace & Co., Arch., for the construction of a three-story, 60x335-ft. reinforced-concrete plant for William Barnet & Son, Albany. Noted Mar. 25.

+Jersey City, N. J.—The J. W. FERGUSON CO., United Bank Bldg., Paterson, has been awarded the general contract for the construction of a three-story, 39x92-ft. reinforced-concrete factory for the Parodi Cigar Co., Inc. The estimated cost is $75,000.

Erie, Penn.—The Niagara Film Co., Marine Bank Bldg., plans to construct a plant. The estimated cost is $150,000.

Harrisburg, Penn.—Plans are being prepared for the construction of a three-story, 42x88-ft. addition to the plant of the Kreider Shoe Co.

Harrisburg, Penn.—(Official)—Work will be started about May 1 on the construction of a three-story, 81x153-ft. factory at Tenth and Market St. for the Standard Baking Co. Estimated cost, $100,000.

+Pittsburgh, Penn.—Henry Laughlin has awarded the contract for the construction of a two-story garage to TOUPET BEIL & CONLEY. The estimated cost is $70,000.

Warren, Penn.—The Floridin Co. plans to construct a plant to cost $60,000.

Wilkes-Barre, Penn.—The Duplan Silk Co. contemplates the construction of a factory. The estimated cost is $500,000.

Baltimore, Md.—Plans are being prepared by Stanislaus Russell, Arch. 2900 Clifton Ave., for alterations and additions to the plant of the Schall-Crouch Auto Co. Estimated cost, $12,000.

+Albemarle, N. C.—The contract for the construction of a three-story addition to mill No. 5 for the Wiscassett Mills Co. has been awarded to HOLDBROOKS & BRADSHAW, Salisbury. Estimated cost, $100,000.

+Columbia, S. C.—E. W. ROBINSON has been awarded the contract for the construction of a one-story, 51x80-ft. garage and a 37x60-ft. repair shop for the Capital City Garage Co. Estimated cost, $10,000.

+Bessemer, Ala.—The United States Cast-Iron Pipe & Foundry Co., Burlington, N. J., has awarded the contract for the construction of an addition to the VIRGINIA BRIDGE & IRON CO., Roanoke, Va., at $50,000.

+Ashland, Ky.—The MT. VERNON BRIDGE CO., Mt. Vernon, Ohio, has been awarded the contract for the construction of a five-story, 62x132-ft. plant for the Norton Iron Works. Estimated cost, $50,000.

+Louisville, Ky.—The W. E. WOOD CO., Detroit, Mich., has been awarded the general contract for the construction of a six-story, reinforced-concrete assembling plant for the Ford Motor Co. Estimated cost, $500,000. Noted Jan. 7.

Cleveland, Ohio—The American Shipbuilding Co. plans to construct a group of reinforced-concrete buildings on West 24th St. The group consists of a 120x320-ft. foundry and machine shop, a two-story, 100x200-ft. pattern shop and a three-story, 60x100-ft. storage building. The estimated cost is $160,000.

Cleveland, Ohio—The Cleveland Builders Supply Co. will construct a 52x212-ft. warehouse. The estimated cost is $15,000.

+Cleveland, Ohio—The Frantz-Premier Mfg. Co., Leader-News Bldg., has awarded the contract for the construction of a four-story plant on Ivanhoe Rd. to the SAMUEL AUSTIN & SON CO., 14,230 Euclid Ave. Estimated cost, $150,000.

Cleveland, Ohio—Plans have been prepared by the Forest City Engineering Co., Arch., 512 Hippodrome Bldg., for the construction of a one-story, 80x112-ft. foundry at Aetna Rd. and East 91st St. Estimated cost, $12,000.

Cleveland, Ohio—Plans have been prepared by Prack & Perrien, Arch., Pittsburgh, Penn., for the construction of an eight-story, 150x200-ft., reinforced-concrete pattern building for the Westinghouse Electric & Mfg. Co. Estimated cost, $300,000.

Toledo, Ohio—Bids are being received by E. Scheiwe, Detroit, Mich., for the construction of a seven-story, reinforced-concrete storage warehouse at Spielbusch Ave. and State St. for the Scheiwe Storage Co., 645 Ohio Bldg. Noted Jan. 28 and Apr. 1.

Bloomington, Ind.—The Showers Bros. Furniture Co. plans to construct an addition to its plant. Estimated cost, $50,000.

+East St. Louis, Ill.—(Official)—The WOERMANN CONSTRUCTION CO., 543 Century Bldg., St. Louis, Mo., has been awarded the contract for the construction of five-story, reinforced-concrete abattoir for Armour & Co.

Peoria, Ill.—Plans are being prepared by Warren W. Day, Arch., 527 Main St., for the construction of a six-story, 78x155-ft. warehouse for Oakford & Fahnestock. The estimated cost is $100,000.

✚La Crosse, Wis.—The contract for the construction of a one-story, 80x125-ft. addition for the Wisconsin Pearl Button Co. has been awarded to F. M. NOBEL. Estimated cost $22,000. Noted Mar. 25.

Milwaukee, Wis.—Bids will be received about Apr. 15 for the construction of a two-story, 80x100-ft., reinforced-concrete addition for the Richard Guinz Packing Co., Muskego Ave. and Canal St. The estimated cost is $25,000.

Milwaukee, Wis.—The Federal Pressed Steel Co. will construct an addition to its plant at Keefe Ave. and North Pierce St. The estimated cost is $10,000.

✚Milwaukee, Wis.—The contract for the construction of a printing plant on 20th St. for O. Schutz, Clybourn St., has been awarded to the KROENING CONSTRUCTION CO. Estimated cost $20,000.

Des Moines, Iowa—According to press reports the Nichols & Shepherd Co., Battle Creek, Mich., plans to construct a warehouse. Estimated cost, $75,000.

✚Minneapolis, Minn.—C. A. BOEHME has been awarded the contract for the construction of a two-story, 51x38-ft. factory at 65 22nd St. N. E. for the Minnesota Fiber Bottle Co. Estimated cost, $30,000. Noted Apr. 1.

Leavenworth, Kan.—The Schalker Bros. Packing Co. will construct a two-story, reinforced-concrete packing house at Third and Choctaw St. The estimated cost is $35,000.

✚St. Louis, Mo.—The contract for the construction of a three-story, 70x150-ft. reinforced-concrete warehouse at 2917 Clark Ave., for the United States Incandescent Lamp Co., has been awarded to BROCK BROS. Estimated cost, $15,000.

Portland, Ore.—The Oregon-Washington R.R. & Navigation Co. plans to construct a roundhouse at Walla Walla, Wash. Estimated cost, $60,000. J. R. Holman is Chief. Engr.

✚San Fernando, Calif.—HUNTSBERGER & REED, 414 Van Nugs Bldg., has been awarded the contract for the construction of a one-story, 80x172-ft. packing plant for the San Fernando Heights Lemon Co. Estimated cost, $12,000. Noted Mar. 18.

Hamilton, Ont.—The Dominion Sheet Metal Co., Ltd., recently incorporated with a capital of $300,000, will construct a plant for the manufacture of galvanized iron sheets. A. T. Enlow, Oshawa, Ont., is Pres.

FEDERAL GOVERNMENT WORK

★Dredging—Providence, R. I.—The following are the bids received for dredging in Providence Harbor: P. Sanford Ross, Jersey City, N. J., $91,833; John H. Gerrish, Boston, Mass., $104,733; J. S. Packard Dredging Co., Providence, R. I., $92,113. Noted Mar. 4.

✚Post Office—Danbury, Conn.—The contract for the construction of a post office at Danbury has been awarded to GEORGE B. WILLIS & CO., 103 Park Ave., New York, at $69,175. This post office was originally awarded to the Charles McCaul Co., Philadelphia, Penn., at $61,900, but this company was released from the contract on the ground that an error had been made in the bid. Noted Sept. 24, Nov. 12 and Mar. 18.

Post Office—Plainfield, N. J.—Bids were received for the construction of a post office at Plainfield, (a) using limestone for all exterior stonework except where granite is specified, (b) using sandstone for all exterior stonework except where granite is specified, (c) using light pink Tennessee marble for all exterior stonework except where granite is specified, as follows: John C. Abbott, Plainfield, (a) $109,910, (b) $113,910, (c) $142,910; J. Kresse Co., New York, (a) $83,900, (b) $88,000, (c) $111,000; Torbert Construction Co., Hampton, Va., (a) $94,443, (b) $98,336, (c) $116,931; J. S. Rogers Co., Moorestown, N. J., (a) $91,800, (b) $97,800, (c) $116,900; M. Yeager & Son, Danville, Ill., (a) $94,569, (b) $96,525, (c) $114,672; Conners Bros. Co., New York, (a) $92,239, (b) $96,525, (c) $114,670; Hagen Lumber Co., Scranton, Penn., (a) $97,997, (b) $101,000, (c) $124,510; Colonial Construction & Supply Co., Charlottesville, Va., (a) $96,769, (b) $101,269; Lewis P. Fluhrer Co., New York, (a) $99,995; (b) $124,460; J. P. Cullen Construction Co., Janesville, Wis., (a) $117,000, (c) $139,500; W. H. Fissell & Co., New York, (a) $84,000, (b) $92,878, (c) $113,373; John Lowry, Jr., New York, (a) $87,700, (b) $92,000, (c) $112,000; John G. Unkefer & Co., Minerva, Ohio, (a) $92,213, (b) $100,272, (c) $117,449; William H. Egan, New York, (a) $96,420, (b) $102,000, (c) $121,300; Westchester Engineering Co., White Plains, N. Y., (a) $88,235, (b) $98,000, (c) $112,000; S. W. Mather & Son, Trenton, N. J., (a) $86,200, (b) $90,300, (c) $108,980; Thomas W. Cissel, Wooster, Ohio, (a) $98,300, (b) $102,700, (c) $123,770; B. F. Tallamy & Bros., Plainfield, N. J., (a) $100,975, (b) $105,465, (c) $128,575; Aroldo Barbares, Mt. Vernon, N. Y., (a) $114,900, (b) $115,800, (c) $137,000; Charles Gilpin, Philadelphia, Penn., (a) $82,978, (b) $89,538, (c) $105,100; George B. Wills & Co., New York, (a) $87,416, (b) $92,735, (c) $109,901. Noted Feb. 25.

✚Stone and Riprap—Philadelphia, Penn.—The contract for furnishing and depositing 1000 tons of broken stone and 2100 tons of riprap at Brandywine Shoal Light Station, Delaware Bay has been awarded to the COAST & LAKES CONTRACTING CORPORATION, 41 Broad St., New York, N. Y., at $8959. Noted Feb. 25 and Apr. 1.

✚Artesian Water Supply—Indian Head, Md.—The contract for additional artesian water supply at the U. S. naval proving ground has been awarded to EDWARD CHRISTMAN, 403 East Main St., Massillon, Ohio, at $9890. Noted Jan. 14.

Building—Washington, D. C.—Bids will be received until 2 p.m., Apr. 9, by the District Commissioners for the construction of a residence at 14th and Upshur St. Oliver P. Neuman is one of the Comrs.

Building—Washington, D. C.—Bids will be received until 2 p.m., Apr. 15, by the District Commissioners for the construction of a 16-room school on Warder St.

Grading—Washington, D. C.—Bids will be received until 2 p.m., Apr. 13, by the District Commissioners for grading the west approach of the Q St. bridge, involving about 11,900 cu.yd. of excavation. Oliver P. Newman is one of the Comrs.

Traveling Crane—Washington, D. C.—The following are the bids received for furnishing a 15-ton four-motor electric traveling crane at the navy yard: Morgan Engineering Co., Alliance, Ohio, $5485; Whiting Foundry & Equipment Co., Harvey, Ill., $4870; Manning, Maxwell & Moore, 119 West 40th St., New York, $4149; Pawling & Harnischfeger, Milwaukee, Wis., $4885; Cleveland Crane & Engineering Co., Wickliff, Ohio, $4685; Niles-Bement-Pond Co., 111 Broadway, New York, $4675. Noted Mar. 11.

✚Heating Apparatus—Washington, D. C.—The contract for installing heating apparatus in the Western High School, Washington, D. C., has been awarded to the MONARCH HEATING & VENTILATING CO., New York, at $17,623.

★Coal—Norfolk, Va.—Bids will be received until noon, May 7, at the U. S. Engineer's office, Norfolk, for furnishing about 3000 tons of bituminous coal.

Building—Radio, Va.—Bids will be received until 11 a.m., Apr. 17, by H. R. Stanford, Chief, Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of a two-story brick office building, 36x50 ft.

✚Dredging—Charleston, S. C.—The contract for dredging in the Ashley River, has been awarded to SIMMONS & MAYRANT CO., Charleston, S. C., at $6937. Noted Feb. 18 and Apr. 1.

Earthwork—New Orleans, La.—The following are the bids received for constructing about 309,000 cu.yd. of earthwork in the Lower Tensas and Atchafalaya districts: Gibson, Hamilton & Co., New Orleans, Lower Tensas Levee District, Hard Times Levee, Districts Nos. 1 and 2, involving about 208,000 cu.yd., 17.37c. per cu.yd.; Dameron-White Co., Ltd., New Orleans, Atchafalaya Levee District, Lecour Levee, Lot No. 2, 11.89c. per cu.yd. Noted Mar. 18.

★Steel Lock Gates—Cincinnati, Ohio—Bids will be received until 2 p.m., Apr. 27, 1915 by Lieut. Col. H. Jervey, U. S. Engineers office, for furnishing and erecting steel lock gates for Dam No. 29, Ohio River.

★Dredging—Indiana Harbor, Ind.—The following are the bids received for dredging in Indiana Harbor, which involves about 40,000 cu.yd: Greiling Bros. Co., Green Bay, Wis., $5800; Fitz Simons & Connell Dredge & Dock Co., Chicago, Ill., $7200; Great Lakes Dredge & Dock Co., Chicago, Ill., $7200; Byrne Bros. Dredging & Engineering Co., Chicago, Ill., $8533. Noted Mar. 4.

Remodeling Post Office—New Albany, Ind.—Bids will be received until 3 p.m., May 8, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for extending and remodeling the post office at New Albany.

Fuel Oil—National Military Home, Kan.—Bids will be received by W. W. Martin, Treas., Western Branch N. H. D. V. S. until 2 p.m., Apr. 15, for furnishing and delivering 1,800,000 gallons of fuel oil.

Brick Mess Hall—Pierre, S. D.—The following bids were received for constructing a brick mess hall at the Pierre Indian School, Pierre: Frank Jahen Construction Co., Huron, S. D., $19,140; Grey Construction Co., Watertown, S. D., $20,900; John Lof & Co., Omaha, Neb., $23,466; W. D. Lovell, Minneapolis, Minn., $16,900; J. H. Stevens, Chamberlain, S. D., $16,597; Horton & Smith, Montezuma, Iowa, $21,143; N. H. Sheppard, Pierre, S. D., $17,625. Noted Mar. 11.

✚Post Office—Miles City, Mont.—The contract for the construction of a post office at Miles City has been awarded to the HIRAM LLOYD BUILDING & CONSTRUCTION CO., Odd Fellows' Bldg., St. Louis, Mo., at $86,817. Noted Jan. 7 and Mar. 18.

Water System—Rosebud, Mont.—Bids will be received until 11 a.m., May 1, by J. B. Houston, Depot Quartermaster, for the installation of a water system at the Custer Battlefield National Cemetery.

✚River Bank Protection—St. Louis, Mo.—The contract for 10,000 lin.ft. of river-bank protection has been awarded to RUST & SWIFT, St. Louis, Mo., at $124,112. Noted Feb. 11.

Post Office—Bryan, Tex.—Bids will be received until 3 p.m., May 12, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a one-story and basement stone and brick post office.

Guardhouse and Bakery—Fort Bliss, Tex.—Bids will be received until 11 a.m., Apr. 30, by Maj. William Elliott, Depot Quartermaster, El Paso, for the construction of a guardhouse and bakery at Fort Bliss.

✚Canal Excavation—Grand Junction, Colo.—Contracts for about 640,000 cu.yd. of canal excavation have been awarded to MANDENHALL, STRAW & BIRD CO., Springville, Utah, for Schedules 2, 3, 5, 6 and 7 at a total of $59,921 and the REYNOLDS-ELY CONSTRUCTION CO., Springville, Utah, for schedules 1 and 4 at $38,675. Noted Feb. 11 and Mar. 25.

Post Office—Park City, Utah—Bids will be received until 3 p.m., May 13, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a one-story brick post office at Park City.

Derrick Hoist—Bremerton, Wash.—Bids will be received until Apr. 20 by the Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., for furnishing an electric driven derrick hoist at the Puget Sound Navy Yard.

Buildings—Bremerton, Wash.—Plans are being prepared by the Bureau of Yards and Docks, Navy Department, Washington, D. C., for the construction of a storehouse for torpedoes at the Puget Sound Navy Yard.

Buildings—San Diego, Calif.—Plans are being prepared by the Bureau of Yards and Docks, Navy Department, Washington, D. C., for the construction of radio buildings at the Naval Station, San Diego.

Buildings—Guantanamo, Cuba—Plans are being prepared by the Bureau of Yards and Docks, Navy Department, Washington, D. C., for the construction of barracks, quarters and recreation buildings at the Naval Station, Guantanamo. The estimated cost is $40,000.

Foundations—Cavite, P. I.—The bid received for the excavation of foundations for the wireless towers at the Naval Station, Cavite, has been rejected. The work will be done by the Station. Noted Jan. 28 and Mar. 18.

Miscellaneous Supplies—Panama—Bids will be received until 10:30 a.m., Apr. 26, by Maj. F. C. Boggs, Gen. Pur. officer of the Panama Canal, Washington, D. C., for furnishing six regulating valves, machines, motors and starting panels and limit switches for locks.

MISCELLANEOUS

Dredging—Boston, Mass.—Bids will be received until Apr. 15 by the State Harbor and Land Commissioners for dredging about 26,000 cu.yd. in Deacon's Pond Harbor, Falmouth. William I. Williams is Ch. Engr.

Motor Fire Apparatus—Chicopee, Mass.—The city contemplates the purchase of motor apparatus for the fire department at a cost of $14,000.

Natatorium—Holyoke, Mass.—Bids will be received until Apr. 15 by William B. Reid, Arch., for the construction of a swimming pool, 20x60-ft. for the city of Holyoke.

Fire Station and Alarm System—New Bedford, Mass.—The city plans to build a central fire station and an underground alarm system. The total cost will be about $150,000.

Fire Station—Salem, Mass.—The city plans to construct a fire station at an estimated cost of $40,000. George F. Ashton is City Engr.

Dock—Sandwich, Mass.—Press reports state that the city plans the construction of a municipal dock and landing to cost about $10,000.

★Paving—Greenwood, Conn.—Bids will be received until 3 p.m. Apr. 17, by the Highway Commissioners of the Town of Greenwich for 26,500 sq.yd. concrete paving on Field Point Rd., Prospect St., Horseneck Lane and Lake Ave. and until 3 p.m. Apr. 20, for 23,500 sq.yd. on Riverside Ave. and Sound Beach Ave.

✚Dredging—Hartford, Conn.—The contract for dredging in the Connecticut River below Hartford has been awarded to the HARTFORD & NEW YORK TRANSPORTATION CO., Hartford, at $13,000.

★Interior Decoration—Albany, N. Y.—(Official)—Bids will be received until noon, Apr. 19, by the Clerk of the Board of Supervisors, City Hall, Albany, for furnishing and installing the finish of the special rooms of the new court house for Albany County. For details see advertisement under "Contracts to Be Let."

★Steel Furniture—Albany, N. Y.—(Official)—Bids will be received until noon, Apr. 19, by the Clerk of the Board of Supervisors, City Hall, Albany, for furnishing and installing steel furniture at the new court house for Albany County. For details see advertisement under "Contracts to Be Let."

Dock Wall—Buffalo, N. Y.—Bids will be received until Apr. 14 by Francis G. Ward, Comr. Pub. Wks., for the construction of a 600-ft. timber crib or concrete dock wall along Bird Island and Pier, Black Rock Canal. The estimated cost is $40,000. George H. Norton is Deputy Engr.

Retaining Wall—Buffalo, N. Y.—The City Council has approved the bond issue of $270,000 for the construction of a retaining wall along the waterfront from Jersey to Georgia St. Noted Apr. 1.

Track Equipment—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., Apr. 15, by the Commissioner of Bridges for the equipment of the westerly tracks of the upper deck of the Manhattan Bridge. Security required, $40,000.

★Animal House—New York, N. Y.—(Borough of Richmond)—(Official)—The lowest bid received by the State Health Department for the construction of an animal house at Rosebank, was that of Philip Wolf & Son, Stapleton. Noted Feb. 18.

Dredging—Rochester, N. Y.—Press reports state that bids will be received soon for deepening the river channel between Central Ave. dam and a point south of the aqueduct. Estimated cost about $284,000. F. T. Ellwood is City Engr.

Dredging—Atlantic City, N. J.—Press reports state that bids will be received by the City Commissioners for dredging Clam Creek to the steamship terminal. An expenditure of $5000 will also be authorized for the construction of landings for visiting yachts and vessels.

Pier Work—Atlantic City, N. J.—Local press reports state that the Steel Pier Co. will spend $53,000 in repairing damages caused by the storm of December. The greater part of the work will be pile driving.

✚Grandstand—Harrison, N. J.—The contract for the construction of grandstands, bleachers and fences for the Federal League Ball Club has been awarded to W. P. ELLISON, INC., 29 W. 34th St., New York. The estimated cost is $85,000. C. B. Comstock, New York, is Arch.

✚Motor Fire Apparatus—Jersey City, N. J.—The Board of City Commissioners has awarded the contract for furnishing the fire department with three motor-driven aërial fire trucks, motor-driven fuel wagons and seven horse-drawn fire engines to the AMERICAN La FRANCE CO., at $79,995. Noted Mar. 4 and 25.

✚Bulkhead—Red Bank, N. J.—The Board of Freeholders has awarded the contract for the construction of a bulkhead along the county road at Galilee to OWEN J. MELEE, Long Branch, at $18,132.

★Paving—Trenton, N. J.—Bids will be received until 2:30 p.m. Apr. 20, by the Board of Chosen Freeholders of Mercer County at Trenton, N. J. for improving about three miles of road Section 2, River Road. John J. Power is Dir.

★Paving—Trenton N. J.—Bids will be received until 2:30 p.m., Apr. 20 by the Board of Chosen Freeholders of Mercer County at Trenton N. J. for the laying of a bituminous macadam highway known as the Trenton-Allentown Turnpike. John J. Power, a dir.

★Paving—Trenton N. J.—Bids will be received until 2:30 p.m. Apr. 20, by the Board of Chosen Freeholders of Mercer County, at Trenton N. J. for about three miles of road impovement known as Section 1, River Road. John J. Power is Dir.

Drainage—Wilmington, N. C.—The Commissioners of New Hanover Drainage District No. 1 will issue $20,000 in bonds for drainage in that district and at Winter Park. .

★Levee Work—Augusta, Ga.—Bids will be received until 4 p.m., Apr. 27th, by the City Council, 747 Broad St., for the construction of an earth levee along the Savannah River below the city of Augusta. For details see advertisement under "Contracts to Be Let."

Drainage—Donaldsonville, La.—The Bayou Conway Drainage District has decided to advertise for bids for excavation work, about 100,000 cu.yd. B. J. Vega is Secy. of the Bd.

Drainage—Union City, Tenn.—Bids will be received until Apr. 12 by the Obion River Drainage District for the construction of 1,564,000 cu.yd. of levee work and 637,000 cu.yd. of ditch work, all floating dredge work. J. A. Coble is Secy.

Elimination of Grade Crossing—Bratenahl, Ohio—(Cleveland post office)—Bids will be received by C. A. Neff, Clk., 219 East 105th St., Bratenahl, for the purchase of $38,918 in bonds, the proceeds to be used for the elimination of the grade crossing at East 105th St.

Gymnasium—Cincinnati, Ohio—Bids will be received by Joseph G. Steinkamp & Bro., Arch., 1212 Mercantile Library Bldg., for the construction of a two-story, 75x128-ft. gymnasium for St. Xavier's College, Sycamore and Seventh St.

Bathhouse—Cincinnati, Ohio—Plans are nearing completion for the construction of a two-story, 35x85-ft. bathhouse for the city. Philip Fosdick is Dir. Pub. Service. Louis G. Ditoe, 617 Provident Bank Bldg., is Arch.

River Improvement—Tiffin, Ohio—Bids will be received until Apr. 20 by William Heller, Dir. Pub. Service for river improvements including 56,900 cu.yd. earth excavation, 1000 cu.yd. rock excavation, 4100 cu.yd. plain concrete or 8125 cu.yd. reinforced-concrete work.

✚Channel Work—Xenia, Ohio—The County Commissioners have awarded the contract for the deepening Beaver Creek Channel, about 144,183 cu.yd. floating dredge work, to the JONES CONSTRUCTION CO., Mt. Vernon, Ohio, at $13,091.

Drain—Princeton, Ind.—Bids will be received until Apr. 14 by George Miller, Construction Comr., for the construction of a drain.

Dredging—Washington, Ind.—Press reports state that Daviess County will dredge Prairie Creek for about 20 miles. The estimated cost is $90,000.

Motor Fire Apparatus—Champaign, Ill.—The City Council contemplates an expenditure of about $18,000 for motor fire apparatus.

Recreation Building—Chicago, Ill.—Bids will be received until 11 a.m., Apr. 12, by E. C. Shankland, Chn. Harbor and Subway, for the construction of a recreation building and shelter on pier No. 2. It will be two stories high with brick terra-cotta walls, concrete slab floor. Estimated cost $150,000.

✚Ditches—Grand Rapids, Wis.—The Wood County Drainage District Commission has awarded the contract for the construction of 18 miles of ditches in the townships of Seneca, Port Edwards and Cranmoor to GILMORE BROS., Grand Rapids, at 6.94c. per cu.yd. B. G. Chandos is Chn. of Comn.

Drainage—Indianola, Iowa—Bids will be received about May 1 by the County Auditor for the construction of two ditches in Warren County, about 11 miles.

✚Ditch—Fairfax, Minn.—The contract for the construction of tile ditch No. 57 has been awarded to KIRCHER BROS., St. Paul, at $13,990.

Ditch—Foley, Minn.—Bids will be received by the County Auditor until Apr. 22 for the construction of ditch No. 13.

✚Ditch—Mankato, Minn.—The contract for the construction of County Ditch 26 has been awarded to the NORTH STAR CONCRETE CO., Manketo, at $23,100.

✚Ditch—Slayton, Minn.—The contract for the construction of Judicial Ditch No. 3 has been awarded to the WIDELL CONSTRUCTION CO., Mankato, at $76,995. Noted Mar. 11.

✚Ditch—Wheaton, Minn.—Contracts for 40 miles of ditch work have been awarded to D. E. MORGAN, St. Cloud, for 26 miles, about 167,000 cu.yd., and to C. W. ROAD CONSTRUCTION CO., Grand Rapids, Wis., about 76,000 cu.yd. The estimated costs are $21,600 and $10,900 respectively.

Drainage District—Pine Bluff, Ark.—A petition has been filed in the Circuit Court asking for the formation of the Tenth Drainage District in Jefferson County. It is proposed to strengthen and deepen Five Forks Cañon.

Drainage—Brigham City, Utah—Preparations are being made for the establishment of the Corinne Drainage District in Box Elder County. The proposed district embraces about 10,000 acres. It will require five main drains. W. M. Bostaph, Ogden, is Engr.

Ditches—North Yakima, Wash.—The County Commissioners will call for bids in the near future for the construction of drainage ditches estimated to cost $38,000. They will be in Drainage District No. 25 in the Liberty district between Sunnyside and Granger.

✚Dredging—Bandon, Ore.—The contract for dredging the Coquille River from Bandon to Coquille has been awarded to the PUGET SOUND BRIDGE & DREDGING CO., Seattle, at 18c. per cu.yd. for 100,000 cu.yd. a month, and at 12c. per cu.yd. for 200,000 cu.yd. a month. Noted Feb. 18.

✚Timber Dock—Portland, Ore.—The Port of Portland Commission has awarded a contract for the construction of a timber dock to the BRAYTON ENGINEERING CO. at $17,575.

Oil Station—Sacramento, Calif.—The Shell Oil Co. has taken out a permit for the erection of an oil distributing station on the upper Stockton Road. Estimated cost, $15,000.

Crane Trestle—San Francisco, Calif.—The Union Iron Works has taken out a permit for the construction of a trestle for a ship crane at its works at Michigan and 20th St. Estimated cost, $60,000.

Dock—Ft. Frances, Ont.—The Department of Public Works, Ottawa, contemplates the construction of a dock at the foot of Cornwall Ave. The estimated cost is $10,000. R. C. Desrochers, Ottawa, is Clk.

Dredging—Toronto, Ont.—The Council has voted favorably on the proposition to dredge and clean out Catfish Pond. The estimated cost is $48,000.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Claremont, N. H.—(Official)—Bids will be received about May 4 by Thomas W. Fry, Secy. of Bldg. Com. for the construction of the two-story Stevens High School. Estimated cost, $55,000. Brainerd & Leeds, 89 Franklin St., Boston, Mass. is Arch. Noted Apr. 1.

Boston, Mass.—E. L. Snider plans to construct a seven-story mercantile building at 23 Albany St. The estimated cost is $75,000. F. A. Norcross is Arch.

Boston, Mass.—Bids will be received about Apr. 17 by John A. Keliher for the construction of the Craig Theater at Boylston and Ipswich St. Noted Apr. 1.

Maynard, Mass.—Bids will be received until Apr. 19 for the construction of a high school. Estimated cost, $60,000. Charles R. Greco, 8 Beacon St., Boston, is Arch. Noted Mar. 11.

+Worcester, Mass.—GEORGE A. FULLER CONSTRUCTION CO., 111 Broadway, New York, N. Y., has been awarded the contract for the construction of a building at 446 Main St. for the Merchants National Bank. Noted Feb. 4 and Mar. 25.

Worcester, Mass.—The City Council voted to construct a six-room addition to School No. 1 on Cambridge St. Estimated cost, $55,000. Noted Mar. 11.

+Middletown, Conn.—C. O. STONE & CO., INC., has been awarded the contract for the construction of a five-story building for the Central National Bank, 273 Main St. Estimated cost, $50,000.

Beacon, N. Y.—(Official)—Homer H. Stuart, Pres. of Bd. of Education, informs us that contracts will be awarded about Apr. 20 for the construction of a two-story high school. Noted Jan. 14, Feb. 18 and Mar. 18.

Buffalo, N. Y.—Louis P. Fuhrmann, Mayor, has approved the issuing of $420,000 in bonds, for the construction of schools and $118,000 for remodeling the Broadway Market.

Buffalo, N. Y.—A bond issue of $80,000 has been authorized for the construction of police stations No. 2 and 8. Louis P. Fuhrmann is Mayor. Noted Jan. 21.

New York, N. Y.—(Borough of Bronx)—Plans are being prepared by Louis Allen Abramson, Arch., 220 Fifth Ave., for the construction of a group of buildings on 167th St. between Teller and Finley Ave. for the Daughters of Jacob. Mrs. A. D. Dworsky is Pres.

New York, N. Y.—(Borough of Bronx)—Louis Allen Abramson, Arch., 220 Fifth Ave., has prepared plans for the construction of a four-story hospital at Charlotte St. and Crotona Parkway for the Bronx Hospital Association. Estimated cost, $300,000.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by Raymond F. Almirall, Arch., 185 Madison Ave., New York, for the construction of a church at Classon between Putnam Ave. and Madison St. for the Church of Nativity. Estimated cost, $200,000.

New York, N. Y.—(Borough of Brooklyn)—The Cathedral Club, Sixth Ave. and St. Marks Pl., is planning to construct a building. Estimated cost, $80,000. Clarence Campbell is member of Bldg Com.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 10:30 a.m., Apr. 22, by the Board of Health, Department of Health, Center and Walker St., for the construction and alterations to the medical staff house and nurses' home at the Willard Parker Hospital, foot of East 16th St. S. S. Goldwater is Pres. of Bd. of Health.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by H. C. Leverance and William Van Alen, Archs., for the construction of a 16-story office and store building at Broadway and 24th St. for the Albermarle Realty Co. Estimated cost, $1,300,000. Harry E. Miller is Pres.

New York, N. Y.—(Borough of Manhattan)—Preliminary bids have been received by Jackson, Rosencrans & Waterbury, Arch., 1328 Broadway, for the construction of a 13-story, 66x98-ft. hotel at 30th St. near Eighth Ave. for the Hotel Irwin for Women, Inc., 1 West 39th St. Estimated cost, $185,000.

New York, N. Y.—(Borough of Queens)—The Board of Education plans to construct a two-story school at Prospect St. and Poplar Ave., Douglaston. Estimated cost, $70,000.

New York, N. Y.—(Borough of Richmond)—Bids are being received by Lewis E. Jallade, Arch., 37 Liberty St., New York, for the construction of a one-story recreation building at Sailors Snug Harbor, S. I. (New Brighton post office) for the Sailors Snug Harbor Corporation, 61 Broadway, New York. Estimated cost, $40,000.

Poughkeepsie, N. Y.—The citizens will soon vote on the issuing of $170,000 in bonds for the construction of a city hall.

+Rochester, N. Y.—(Official)—The contract for the construction of an addition to the Whitney School No. 17 has been awarded to W. F. MARTENS & CO., at $53,877. J. Sankey Mullan, Municipal Bldg., is Secy. of Bd. of Education. Noted Mar. 18.

+Utica, N. Y.—The contract for the construction of a technical high school at the Utica Free Academy has been awarded to PIUS KERNER & SONS, at $292,600.

Watervliet, N. Y.—The lowest bid received for the construction of the three-story City Hall at 15th St. and Broadway was submitted by the J. F. Growe Construction Co., Albany, at $57,975. Noted Feb. 11 and Mar. 11.

+Yorktown Heights, N. Y.—The contract for the construction of seven cottages at the New York State Training School for Boys, 2 West 45th St., New York, has been awarded to the CENTRAL BUILDING CO., 58 Front St., Worcester, Mass., at about $110,000. Louis F. Pilcher, State Arch., Capitol, Albany, prepared the plans. Noted Nov. 12 and Jan. 7.

Bayonne, N. J.—The Board of Education plans to construct a school at West 48th St. and the Boulevard.

Camden, N. J.—Bonds to the amount of $412,000 have been authorized by the City Council. The amount will be used for the construction of a high school. Noted Dec. 17 and Mar. 18.

Jersey City, N. J.—Edward Erickson, Oak St., plans to construct a motion picture theater on Jackson Ave. It will have a seating capacity of about 1500.

Morris Plains, N. J.—Bids will be received until 11 a.m., Apr. 14, by the Board of Managers of the New Jersey State Hospital for the construction of an addition to its Industrial Building.

+West New York, N. J.—(Weehawken post office)—The contract for the construction of a parochial school for St. Mary's German Church has been awarded to the VROMAN CONSTRUCTION CO. Noted Feb. 25.

Allentown, Penn.—The Y. M. C. A. plans to construct a $120,000 building at Allentown. Frank M. Trexler is Chn. and H. W. Elvidge is Secy. of Bd. of Trustees.

Easton, Penn.—E. M. Green, M. D., and H. J. Steele, Congressman, are interested in a plan to raise $150,000. The amount will be used for the construction of a hospital.

Hanover, Penn.—The School Board plans to construct a high school to cost about $85,000.

Lehighton, Penn.—The citizens will soon vote upon the issuing of $100,000 in bonds for the construction of a school.

McKeesport, Penn.—(Official)—Bids will be received until 3 p.m., Apr. 22, by W. T. Norton, Secy. of Bd. of School Dir., for the construction of a two-story, high school. Noted Mar. 11.

Philadelphia, Penn.—A. A. Ritchie, Arch. is preparing plans for the construction of a building at Broad and Ruscomb St. for the Muhlenberg Lutheran Church. Estimated cost, $60,000.

Pittsburgh, Penn.—Plans have been prepared by F. J. Osterling, Arch., 316 Fourth Ave., for the construction of a ten-story arcade building at Fifth Ave., Grant St., Oliver Ave. and William Penn Pl. for Henry Clay Frick. Estimated cost, $1,500,000 to $2,000,000. Noted Mar. 4.

+Rochester, Penn.—(Official)—McDONALD & HARTMAN, at $63,650 has been awarded the general contract for the construction of the Rochester High School. George H. Karcher is Secy. of School District of Rochester. Noted Mar. 11.

+Warren, Penn.—GEORGE A. FULLER CO., 111 Broadway, New York, N. Y., has been awarded the contract for the construction of a two-story library. Estimated cost, $150,000. Noted Feb. 11 and Apr. 1.

Baltimore, Md.—Bids will soon be received by Wyatt & Nolting, Arch., 1012 Keyser Bldg., for the construction of the physical laboratory at Homewood for the Johns Hopkins University. The estimated cost is $200,000.

Baltimore, Md.—Plans have been prepared by Carrere & Hastings, Arch., 225 Fifth Ave., New York, N. Y., for the construction of the chemical laboratory at Homewood for the Johns Hopkins University. Estimated cost, $200,000.

Baltimore, Md.—Plans are being prepared by Watson & Huckle, Arch., for the construction of a church at Ostend and Charles St. for the Chapel of Advent. Estimated cost, $45,000.

Charlottesville, Va.—Plans have been prepared by Walter D. Blair, Arch., 281 Fifth Ave., New York, N. Y., for the construction of a three-story, 50x140-ft. hospital for the University of Virginia. Estimated cost, $50,000.

+Lynchburg, Va.—The contract for the construction of a building at Ninth and Main St. for the Lynchburg National Bank has been awarded to E. W. MINTER & CO., 115 Broadway, New York, N. Y. Estimated cost, $110,000. Noted Jan. 21.

+Fairmont, W. Va.—ROSE & BEAMAN, Goldsboro, N. C., at $115,749 has been awarded the contract for the construction of a two-story, 85x250-ft. school. Paul A. Davis, 1713 Sansom St., Philadelphia, Penn., is Arch. Noted Feb. 25.

Charleston, S. C.—Bids will be received about Apr. 15 by William Albert Swasey, Arch., 47 West 34th St., New York, N. Y., for the construction of a 12-story, 136x132-ft. hotel and theater building at Meeting and Hazel St. for the Argyle Hotel Co., 189 East Bay St. Estimated cost, $600,000. Noted Oct. 29.

Rome, Ga.—Bonds to the amount of $100,000 have been sold. The proceeds will be used for the construction of a municipal building and a hospital. Noted Mar. 11.

Memphis, Tenn.—(Official)—W. C. Duttlinger Chn. of Bldg. Com., advises us that nothing can be reported at this time regarding the construction of a $400,000 auditorium. Noted Mar. 25.

Nashville, Tenn.—Bids will be received until Apr. 13 by Samuel Hannaford & Sons, Arch., Hulbert Blk., Cincinnati, Ohio, for the construction of the laboratory building for the Vanderbilt University. Estimated cost, $350,000. Noted Dec. 17 and 31, and Mar. 25.

+Cincinnati, Ohio—The general contract for the construction of a Y. M. C. A. building has been awarded to the FERRO CONCRETE CONSTRUCTION CO., at $60,313. Noted Nov. 19.

Columbus, Ohio—The Legislature is considering the question of appropriating $100,000 for the construction of an institution for deformed and crippled children.

Dayton, Ohio—Bids will be received until noon, Apr. 14, by the County Commissioners of Montgomery County, Dayton, for the construction of a dormitory for men at the County Infirmary. Schenck & Williams, 591 Arcade Bldg., is Arch. Walter H. Aszling is Clk.

+Fostoria, Ohio—L. E. WOOD, Lima, at $138,444 was awarded the contract for the construction of the Central School and an addition to the North Union St. School. Noted Mar. 18.

Galion, Ohio—The B. P. O. E. plans to construct a building at the public square. Estimated cost, $50,000.

Lakewood, Ohio—Bids will be received until noon Apr. 15 by P. T. Harrold, Clk. of Bd. of Education, High School Bldg., Warren Rd., for the construction of additions to the Madison School at Madison opposite Wagar Ave. Charles W. Hopkinson, 900 Rose Bldg., Cleveland, is Arch.

Milford Center, Ohio—Plans are being prepared by Frank L. Packard, Arch., Columbus, for the construction of a school. Estimated cost, $60,000.

Northfield, Ohio—Bids will be received until noon, Apr. 12, by G. L. Williams, Clk. of Bd. of Education for the construction of a school. Ashby & Shultz, Chicago, Ill., is Arch.

Toledo, Ohio—Bids will be received until noon, Apr. 19, by the Clerk of the Board of Education for the construction of Nebraska School on Nebraska Ave. George L. McKesson is Dir. of Schools.

✚Toledo, Ohio—The contract for the construction of a six-story building on Summit St. for Neuhausel Bros. has been awarded to FRANK R. STAHL, at about, $300,000.

✚Wickliffe, Ohio—The contract for the construction of a school has been awarded to the W. DUNBAR CO., 8209 Cedar Ave., Cleveland, at $50,000. Noted Mar. 25.

✚Willoughby, Ohio—(Official)—The contract for the construction of a high school has been awarded to JAMES H. WELLS, Scranton Rd. and Valentine Ave., Cleveland, at $63,622. Other bids were received as follows: Craft & Agnew, $65,875; R. D. Grant, $68,568; John Kieser, $70,022; Cleveland Fireproofing Co., $71,000; Glick Weitel Co., $71,979; Stiemple Construction Co., $72,879; Roe & Giles Lumber Co., $74,000; National Fireproofing Co., $74,400; Heller Bros., $76,400; J. B. Kohn, $79,000. Noted Oct. 8, Jan. 21, Feb. 4 and Mar. 18.

Evansville, Ind.—(Official)—Architects will soon submit competitive designs and plans for the proposed construction of a $100,000 coliseum. Charles P. Beard is Secy. of Bd. of Coliseum Directors. Noted Mar. 25.

Detroit, Mich.—Plans have been prepared by Louis Kamper, Arch., 701 Fine Arts Bldg., for the construction of the Detroit Tuberculosis Hospital at Pingree and Schmittdiel Ave. Estimated cost $400,000.

Detroit, Mich.—Plans have been prepared by Mildner & Eisen, Arch., 926 Hammond Bldg., for the construction of a three-story commercial and theater building at Warren Ave. and Perrien Park for the Scenic Theater Co., of Detroit. Estimated cost, $350,000.

✚Grand Rapids, Mich.—The contract for the construction of a one-story building for the First Methodist Episcopal Church has been awarded to JOHN McNABT & SONS, 203 Murray Bldg. Estimated cost, $170,000. Noted Nov. 12 and Dec. 31.

✚Munising, Mich.—VICTOR CARLSON, Quinn, at $40,500 was awarded the contract for the construction of a two-story school. Charlton & Kuenzli, Camp Bldg., Milwaukee, Wis., is Arch. Noted Oct. 1 and 15, and Mar. 11.

Bloomington, Ill.—The citizens are planning the construction of a convention hall at Washington between Madison St. and Roosevelt Ave. Estimated cost, $100,000.

Chicago, Ill.—About $600,000 has been appropriated by the Buildings and Grounds Committee of the Board of Education for the construction of additions to the following elementary schools. Willard School, St. Lawrence Ave. and 49th St., assembly hall, gymnasium and nine classrooms, $160,000; McPherson School, Lincoln St. and Lawrence Ave., assembly hall and 12 classrooms, $180,000; Komensky School, Throop and 20th St., assembly hall and gymnasium, $90,000; Beaubien School, Laramie and Winnemac Ave., gymnasium and 12 classrooms, $100,000.

Chicago, Ill.—According to press reports the Chicago Board of Trade plans to construct an eight-story building at La Salle St. and Jackson Blvd. Estimated cost, $2,000,000.

Chicago, Ill.—Plans are being prepared by Erie Hall, County Arch. for the construction of a county jail. The estimated cost is $2,000,000.

Evanston, Ill.—Plans are being considered by W. T. McElveen, Pres. of Bd. of Education, for the construction of a high school. The estimated cost is $1,000,000.

Moline, Ill.—Company F. Illinois State Militia of Moline plans to construct an armory. Estimated cost, $60,000. F. A. Landee is interested.

✚Milwaukee, Wis.—The contract for the construction of an addition on Second St. near Grane Ave. for Charles Toy has been awarded to B. A. GREENLEAF. Estimated cost, $40,000.

Milwaukee, Wis.—Bids are being received for the construction of a building at Bradford and Prospect Ave. for the St. John's Home for Aged Ladies. Mrs. A. J. Horlick is Pres. Estimated cost, $60,000. Noted Jan. 14.

Milwaukee, Wis.—Bids will soon be received for the construction of a three-story motion picture theater and office building on Second St. near Grand Ave. for the Badger Investment Co. Estimated cost, $90,000. Brust & Phillip, 503 Free Press Bldg., is Arch. Noted Nov. 12.

Watertown, Wis.—The Board of Education is having plans prepared by Barkinson & Dockendorff, Arch., La Crosse, for the construction of a high school. Estimated cost is $100,000.

Missouri Valley, Iowa—(Official)—All bids received Mar. 30 were rejected, new bids will be received until Apr. 12 by J. S. Dewell, Secy. of Bd. of Education, for the construction of a high school. Noted Feb. 11, Mar. 18 and 25.

✚Minneapolis, Minn.—The contract for the construction of a two-story school at 1501 University Ave. for the International Christian Unity Bible College has been awarded to C. G.ERICSON. Estimated cost, $75,000.

St. Paul, Minn.—The Sperry Realty Co., Pittsburgh Bldg., plans to construct three buildings at Selby Ave. and Dale St. Estimated cost, $165,000. J. F. Sperry is Pres.

St. Paul, Minn.—Plans have been prepared by J. Hausler, City Arch. for the construction of a one-story, 132x160-ft. model school at Jefferson and Hamline Ave. The estimated cost is $45,000.

Independence, Kan.—The Prairie Oil & Gas Co. plans to construct an office building. Estimated cost, $200,000.

Iola, Kan.—The citizens are considering the question of issuing $80,000 in bonds for the construction of a high school.

Salina, Kan.—Bonds for $100,000 have been voted by the citizens. The proceeds will be used for the construction of a school.

Omaha, Neb.—Plans are being prepared for rebuilding the Board of Trade Bldg. at 16th and Farnam St. The estimated cost is $500,000. E. M. Morsman, Jr., is interested.

✚Butte, Mont.—The contract for the construction of a two-story, fireproof bank building at Main St. and Broadway for W. A. Clark & Bro. has been awarded to NELSON & PEDERSON. Estimated cost, $50,000. Noted Mar. 11.

Joplin, Mo.—The Scottish Rite Cathedral plans to construct a 125x150-ft. building at Fifth St. and Byers Ave. Estimated cost, $150,000. F. Taylor Snapp is Chn. of Bldg. Com.

Kansas City, Mo.—The Board of Education is considering plans for the construction of a three-story, 48x115-ft. addition to the public library. Estimated cost, $155,000.

✚St. Joseph, Mo.—The general contract for the construction of the public city hospital has been awarded to the SELDEN-BRECK CONSTRUCTION CO., St. Louis, at $82,797. Other bidders were: King Lumber Co., Charlottesville, Va., $115,000; St. Joseph Construction Co., $90,335; P. P. Buddy Construction Co., $96,400; Wagenknecht-Walters Construction Co., $109,390; J. W. Lehr, $88,787; J. E. Gates, $94,882; Job Hollinger Construction Co., Kansas City, $96,678; W. D. Lewis Co., Kansas City, $84,998; E. A. Steininger Co., St. Louis, $94,743. Noted Dec. 10.

Dallas, Tex.—J. Ed. Overbeck, Arch., has prepared plans for the construction of an addition to the St. Paul Sanitarium for the Daughters of Charity of St. Vincent de Paul. Estimated cost, $250,000. Rev. Joseph P. Lynch, Bishop of Dallas Diocese, is interested.

El Paso, Tex.—W. H. Austin plans to construct a three-story apartment house at Virginia and Overland St. Estimated cost, $65,000. Gibson & Robertson is Arch.

San Angelo, Tex.—Bonds for $80,000 have been voted for the construction of a high school. Noted Mar. 11.

Sherman, Tex.—Work will be started about Apr. 15 on the construction of an administration building for the Carr-Burdette Carlton College. The estimated cost is $50,000.

Tyler, Tex.—The Commissioners Court plans to construct a $40,000 county jail.

Denver, Colo.—Preliminary plans are being prepared by Walter Rice, Bldg. Inspector, for the construction of a municipal building to be used as fire and police headquarters. Alexander Nisbet, Comr. of Safety, is interested.

Denver, Colo.—J. M. Perkins, Mayor, has petitioned the City Council to issue $500,000 in bonds. The proceeds will be used for the construction of a city and county hospital.

Pocatello, Idaho—Bonds for $125,000 have been voted by the citizens of Pocatello. The proceeds will be used for the construction of a high school. Noted Mar. 18.

FILTER HOUSE, SETTLING BASINS, ETC., BILLINGS, MONT.

✚Bids were received Mar. 17 by the City Council for the construction of a filter house, settling basins, etc., for the water-works from: (A) Engineer's Estimate; (B) Frank Savaresy, Billings; (C) Haggart Construction Co., Fargo, N. D.; (D) Intermountain Construction Co., Tecumseh, Neb.; (E) Katz Construction Co., Omaha, Neb.; (F) HANLON-OKES, Sioux City, Iowa (awarded contract); (G) S. Birch & Sons, Fargo, N. D.; (H) Security Bridge Co., Billings; (I) William Danforth, St. Paul, Minn.; (J) E. Lindstrom, Billings. The item bids were as follows:

FILTER HOUSE, SETTLING BASINS, BILLINGS, MONT.

	A	B	C	D	E	F	G	H	I	J
10,000 cu.yd. earth excavation	$0.90	$0.75	$1.25	$0.50	$1.10	$0.80	$1.25	$0.75	$0.40	$1.10
2410 cu.yd. concrete, Class A	14.00	9.00	12.00	14.00	12.00	9.65	15.00	13.00	13.00	15.00
15 cu.yd. concrete, Class B	10.00	7.00	11.00	12.00	11.00	9.00	15.00	10.00	10.00	11.00
203,500 lb. reinforcing steel bars	0.04	0.03$\frac{1}{3}$	0.04	0.05	0.03$\frac{1}{2}$	0.03$\frac{1}{2}$	0.04	0.0335	0.03$\frac{1}{3}$	0.03$\frac{1}{2}$
20,350 lb. structural steel	0.04	0.07	0.04	0.06	0.04	0.03$\frac{3}{16}$	0.04	0.0355	0.05	0.07
700 ft. 4-in. Class B. c.i. pipe	0.70	0.70	0.80	0.75	0.66	1.10	1.00	1.80	0.75	0.75
40 ft. 16-in. Class A. c.i. pipe	3.00	3.50	3.25	3.00	2.75	7.85	3.25	7.15	4.00	3.18
785 ft. 24-in. Class A. c.i. pipe	5.25	5.50	5.00	5.50	4.75	6.20	5.40	7.55	6.00	5.27
300 ft. 6-in. drain tile	0.20	0.20	0.40	0.30	0.25	1.02	0.70	0.32	0.30	0.60
300 ft. 8-in. drain tile	0.30	0.20	0.50	0.50	0.30	1.07	0.75	0.42	0.40	0.65
450 ft. 10-in. drain tile	0.40	0.20	0.60	0.60	0.40	1.15	0.85	0.65	0.50	0.75
0 ft. 12-in. drain tile	0.00	0.20	2.00	0.75	0.60	1.30	0.95	0.75	0.70	1.50
35 ft. 14-in. drain tile	0.60	0.20	2.25	0.90	0.65	1.45	1.00	1.25	1.00	1.90
325 ft. 15-in. vitrified sewer pipe	1.50	2.00	3.00	2.50	1.45	2.00	2.60	1.41	2.00	2.30
45 ft. 20-in. vitrified sewer pipe	1.50	2.75	3.25	3.00	1.50	2.50	3.00	3.00	2.80	3.00
400 ft. 24-in. vitrified sewer pipe	2.50	3.15	4.00	3.50	2.25	3.00	3.50	4.50	5.50	3.60
Extended totals	**$72,717**	**$65,897**	**$82,350**	**$83,500**	**$85,600**	**$71,790**	**$91,500**	**$82,150**	**$68,000**	**$80,600**

Ogden, Utah—(Official)—John M. Mills, Supt. of Schools, informs us that the bond election for $200,000 failed to carry. The amount was to have been used for the construction of additions and improvements to schools in Ogden. Noted Mar. 25.

Salt Lake City, Utah—Plans have been prepared by F. D. Rutherford, Arch., for the construction of a 26-room school at 13th East and Seventh South St. for the Board of Education. It will be built in two units, the first having 13 rooms and costing about $82,000.

Bremerton, Wash.—Bids will soon be received by Max Umbrecht, Hotel Rector, Seattle, for the construction of a two-story reinforced-concrete motion-picture theater for the Osran Amusement Co. Estimated cost, $65,000.

Seattle, Wash.—Plans are being prepared by Warren H. Milner, Arch., for the construction of a $1,000,000 motion-picture theater near Times Sq. for James Q. Clemmer, owner of the Clemmer Theater.

Fresno, Calif.—Bids will be received until 2 p.m., Apr. 14, by D. M. Barnwell, of the Bd. of Supervisors, for the construction of a tubercular ward building and a physicians building. Glass & Butner, Republican Bldg., is Arch.

Los Angeles, Calif.—Plans have been prepared by Hunt & Burns, Arch., 701 Laughlin Bldg., for the construction of a two-story school on Virgil Ave. Estimated cost, $45,000.

Los Angeles, Calif.—Plans have been prepared by Elmore R. Jeffery, Arch., Wesley Roberts Bldg., for the construction of a group of high school buildings at Garvanza. The group will include a two-story, 100x200-ft. administration building, a two-story, 62x100-ft. science building and a boiler plant. Estimated cost, $150,000.

Los Angeles, Calif.—Plans are being prepared by John F. Blee, Arch., Union League Bldg., for the construction of a five-story, 112x132-ft. reinforced-concrete loft building at Third and Alameda St. for the Neptune Meter Co. Estimated cost, $135,000.

Norwalk, Calif.—Bids will soon be received by George B. McDougall, State Arch., Sacramento, for the construction of a group of buildings for the State Hospital for the Insane. An appropriation of $160,000 has been made by the Legislature. Noted Dec. 25, 1913, July 23 and Aug. 6, 1914.

Oakland, Calif.—The Commercial Club and Chamber of Commerce plan to construct a six- or seven-story building at 13th and Harrison St. Victor H. Metcalf is Pres.

Oak Park, Calif.—Harry Muddox, Sacramento, plans to construct a three-story, fireproof building. Estimated cost, $40,000.

San Francisco, Calif.—Contracts will soon be awarded for the construction of an eight-story office building at Sutter near Powell St. for the Pacific Gas & Electric Co. Estimated cost, $150,000. Edgar A. Mathews, 251 Sutter St., is Arch.

✚San Francisco, Calif.—The contract for the construction of a pathological and garage building at the San Francisco Hospital has been awarded to C. L. WOLD, at $66,027. Noted Feb. 4 and Mar. 4.

San Francisco, Calif.—Bids will be received until 11 a.m., Apr. 14 by Lewis P. Hobart, Crocker Bldg., for the structural steel work for the University of California Hospital, at Fourth and Parnassus Ave.

Montreal, Que.—Plans are being prepared by William A. Swasey, Arch., 47 West 34th St., New York, N. Y., for the construction of a 16-story, 134x175-ft. hotel and theater building for the Philips Place Hotel Co., 723 Transportation Bldg., Montreal. Estimated cost, $1,000,000.

Vancouver, B. C.—Plans have been prepared by Somerville & Pulman, London Bldg., for the construction of a building for the Merchants Bank of Canada at Granville and Pender St. The estimated cost is $200,000.

R. H. Hyland & Co., dealer in railway supplies, announces the removal of its offices to 323 Wells St., Chicago, Ill.

The Charles T. Topping Co., Pittsburgh, Penn., dealer in contractors', mine and quarry equipment, announces the removal of its offices to Suite 928, Oliver Bldg. It will continue as direct representative in western Pennsylvania and northern West Virginia for Koehring concrete mixers, Clyde hoisting engines and derricks, Wylie concrete distributing system, the Cement-Gun, McKiernan-Terry pile hammers and rock drills, Negley slack-cable excavators, Buchanan rock and ore crushers, crushing rolls and magnetic separators, Patten electric builders' hoists, Easton industrial cars and railway systems, Converse portable sand screens, Hotchkiss steel forms, and other well known lines of machinery and equipment.

CATALOG NOTICES

The Bristol Co., Waterbury, Conn. Bulletin No. 192. Bristol's long-distance electric transmitting and recording system. Illustrated, 8 pp., 8x10½ in.

Oshkosh Mfg. Co., Oshkosh, Wis. Catalog. Concrete mixers, trench pumping outfits, portable saw rigs. Illustrated, 32 pp., 9x12 in.

Cheesman & Elliott, 100 William St., New York. Ninth Edition. "Review of Technical Paints." Illustrated, 52 pp., 6x9 in.

The Gregg Co., Ltd., Hackensack, N. J. Booklet D-101. Industrial railway equipment. Illustrated, 8 pp., 3½x6 in.

Electric Welding Co., Pittsburgh, Penn. Pamphlet. Efficiency spacing bar for concrete reinforcement. Illustrated, 8 pp., 6x9 in.

Bausch & Lomb Optical Co., Rochester, N. Y. Bulletin N-A. Engineering instruments. Illustrated, 20 pp., 6½x9½ in.

Cambria Steel Co., Morris Building, Philadelphia, Penn. Catalog. Slick steel mine ties for mine and industrial railroads. Illustrated, 42 pp., 6x9 in.

Chicago Pneumatic Tool Co., Chicago, Ill. Bulletin No. E-35. Universal electric drills. Illustrated, 8 pp., 6x9 in. Form No. 212. Boyer riveting hammer. Illustrated.

Contractors' Machinery & Supply Co., Wabash Building, Chicago, Ill. Quarterly List. New and rebuilt machinery and supplies. Illustrated, 16 pp. 4x8½ in.

Olsen Concrete Mixer Co., Elkhorn, Wis. Catalog. Olsen double drum batch mixer. Illustrated, 6x9 in.

Link-Belt Co., Philadelphia, Penn. Bulletin No. 207. Electric hoist. Illustrated, 4 pp., 6x9 in. Bulletin No. 212. Wendell centrifugal coal dryer. Illustrated, 4 pp., 6x9 in.

DeLaval Steam Turbine Co., Trenton, N. J. Pamphlet. "Steam Turbine Drives for Rolling Mills." Illustrated, 24 pp., 6x9 in.

The Blaisdell Machinery Co., Bradford, Penn. Catalog. Air compressors, vacuum cleaners. Illustrated, 6x9 in.

Combustion Engineering Corp., 11 Broadway, New York. Bulletin B-2. Type E stoker. Illustrated, 20 pp., 6x9 in.

Moon Mfg. Co., 108-28 N. Jefferson St., Chicago, Ill. Catalog No. 4. Lighting plants. Illustrated, 24 pp., 4x9 in.

John Gibson, Fromberg, Mont. Catalog. Sectional reinforced concrete culvert. Illustrated, 6x8 in.

Bituminized Road Co., Reliance Building, Kansas City, Mo. Pamphlet. National pavement. Illustrated, 8x9½ in.

Allis-Chalmers Mfg. Co., Milwaukee, Wis. Bulletin. Tractor truck. Illustrated, 10 pp., 9x12 in.

Lidgerwood Mfg. Co., 96 Liberty St., New York. Bulletin No. 32. "Cableways on Filtration Work." Illustrated, 8 pp., 9x12 in.

The Cement Tile Machinery Co., 124-32 Rath St., Waterloo, Iowa. Catalog. Concrete mixers. Illustrated, 24 pp., 7½x10½ inches.

Dobbie Foundry & Machine Co., Niagara Falls, N. Y., Catalog No. 18. Derricks. Illustrated, 128 pp., 6x9 inches.

Pyott Co., Morgan, Carroll and Sangamon St., Chicago, Ill. Catalog No. 15. Cast-iron pulleys, gears, fly wheels, etc. Illustrated, 144 pp., 6x9 inches.

The Holt Mfg. Co., Stockton, Calif. Bulletin. "The Littlest Caterpillar of All." Illustrated, 8 pp., 7x10 inches.

The Hess Flume Co., Denver, Colo. Hanna water meter. Illustrated, 8 pp., 6x9 inches.

Cement-Gun Co., Inc., 30 Church St., New York. Catalog. The Cement-Gun, Apparatus, Process and Product. Illustrated, 108 pp., 6x9 inches. Bulletin No. 40. "Protection of Steel With Gunite Without Reinforcing." Illustrated.

Whitman Agricultural Co., St. Louis, Mo. Catalog No. 71. "Sultan" contractor's equipment—gasoline engines, pumps, hoists, etc. Illustrated, 72 pp., 6x9 inches.

Whiting Foundry Equipment Co., Harvey, Ill. Bulletin. Reprint of rules for safely operating cranes as issued by the National Founders' Association.

Ogle Construction Co., 332 S. Michigan Ave., Chicago, Ill. Catalog. Coaling locomotives. Illustrated, 22 pp., 5x7 in.

WATER-WORKS IMPROVEMENTS AND EXTENSIONS, BILLINGS, MONT.

✚Bids were received Mar. 17 by the City Council for general improvements and extensions to the water system of Butte from: (A) Engineer's Estimate; (B) Frank Savaresy, Billings; (C) Haggart Construction Co., Fargo, N. D.; (D) Katz Construction Co., Omaha, Neb.; (E) Intermountain Construction Co., Tecumseh, Neb.; (F) C. W. Schruth, Lewistown, Mont.; (G) GORDON-TAYLOR CONSTRUCTION CO., Denver, Colo. (awarded contract); (H) Billings Engineering & Construction Co., Billings; (I) Hanlon-Okes, Sioux City, Iowa; (J) McCabe-Archbald Co., Boulder, Colo.; (K) E. Lindstrom, Billings. The item bids were as follows:

WATER-WORKS IMPROVEMENTS, BILLINGS, MONT.

	A	B	C	D	E	F	G	H	I	J	K
3750 ft. 4-in. c.i. pipe	$0.75	$0.67	$0.77	$0.69	$0.68	$0.90	$0.58	$0.79	$0.73	$0.84	$0.78
12,210 ft. 6-in. c.i. pipe	1.00	0.90	1.02	0.90	0.88	1.10	0.83	1.08	0.93	1.08	1.10
5340 ft. 8-in. c.i. pipe	1.35	1.17	1.33	1.27	1.20	1.43	1.18	1.43	1.25	1.36	1.45
9440 ft. 10-in. c.i. pipe	1.75	1.49	1.73	1.62	1.58	1.79	1.41	1.95	1.60	1.68	1.85
760 ft. relaying 4-in. c.i. pipe	0.30	0.47	0.40	0.30	0.30	0.90	0.20	0.40	0.45	0.45	0.30
9170 ft. replacing 4-in. wood pipe	0.10	0.05	0.10	0.10	0.05	0.05	0.01	0.12	0.11	0.06	0.05
760 ft. replacing 6-in. wood pipe	0.10	0.05	0.10	0.10	0.05	0.05	0.02	0.14	0.11	0.06	0.05
2350 ft. replacing 8-in. Kalamein pipe	0.10	0.07	0.10	0.10	0.05	0.05	0.01	0.15	0.11	0.07	0.05
5 two-way hydrants	32.00	33.00	36.00	33.50	33.00	35.00	33.00	40.00	38.00	40.00	45.00
30 steamer hydrants	40.00	39.00	45.00	43.50	40.00	42.50	37.00	49.60	45.00	41.00	50.00
5 4-in. valves	13.00	12.00	17.50	15.00	14.00	13.00	14.00	17.50	11.50	15.96	18.00
18 6-in. valves	18.00	18.00	22.00	20.00	18.00	18.50	18.00	23.70	17.50	24.00	24.00
5 8-in. valves	25.00	25.00	30.00	27.00	25.00	25.00	25.00	32.00	25.00	29.82	33.00
10 10-in. valves	38.00	33.00	40.00	37.00	35.00	33.00	35.00	41.00	35.25	40.65	42.00
38 connections to old system	10.00	5.00	12.50	10.00		25.00	4.00	20.00	10.00	12.00	20.00
105 sq.yd. replacing bitulithic pavement	4.00	3.75	5.00	3.75	3.00	3.50	2.50	3.00	3.00	1.40	3.50
Extended totals	$43,261	$37,526	$43,708	$40,163	$38,009	$45,933	$34,710	$47,644	$40,520	$43,505	$46,104

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

BUILDING RETURNS

In addition to the figures published last week, relative to building construction, five additional reports have been received from the Pacific Coast. The comparison with last year is much more unfavorable than conditions warrant, for last year the coast cities were building in anticipation of the exposition.

Western States

	1915	1914	First Three Months of Year 1915	1914
Los Angeles, Calif.	$1,124,356	$2,091,041	$2,545,413	$4,729,017
Portland, Ore.	503,755	882,965	1,188,185	1,933,095
San Diego, Calif.	81,590	262,686	435,080	789,869
San Francisco, Calif.	1,405,038	3,956,475	3,081,771	15,880,571
Seattle, Wash.	689,675	923,480	1,452,140	2,683,155
Totals of Building returns published, Apr. 8.	1,185,998	1,412,354	2,537,101	3,063,037
Totals	$4,990,412	$9,529,001	$11,239,690	$29,078,744

RAILWAYS

West Virginia—Baltimore & Ohio R.R. Co.—It is reported that this company contemplates the extension of its line into the Farmington section west of Fairmont, where the Consolidated Coal Co. will open new mines. F. L. Stuart, Baltimore, Md., is Ch. Engr.

West Virginia—Chesapeake & Ohio Ry.—This company contemplates the construction of a branch line from Beckley up Pine Creek to the coal fields. F. I. Cabell, Richmond, Va., is Ch. Engr.

West Virginia—Norfolk & Western Ry.—Arrangements are being made by this company to start work soon on the construction of a branch line from Williamson to the mines at Leckie. J. E. Crawford, Roanoke, Va., is Ch. Engr.

Alabama—St. Louis & San Francisco R.R.—Plans are being prepared by this company for an expenditure of $50,000 for the improvement of its lines from Birmingham, Ala., to Memphis, Tenn. F. G. Jonah, St. Louis, Mo., is Ch. Engr.

Kentucky—Baltimore & Ohio R.R Co.—This company is securing the right-of-way for the construction of its proposed 25-mile railway up Beaver Creek in Floyd County. F. L. Stuart, Baltimore, Md., is Ch. Engr.

Kentucky—Barbourville-Manchester R.R.—The citizens of Clay County have raised a bonus of $100,000 to aid this company in the construction of its proposed railway from Barbourville to the coal fields in Clay County.

Ohio—Chesapeake & Ohio Ry.—This company has received bids and will soon award the contract for the construction of an extension to its line to connect with the Norfolk & Western Ry. near Waverly, Ohio. F. I. Cabell, Richmond, Va., is Ch. Engr.

Oklahoma—Atchison, Topeka & Sante Fe Ry.—According to press reports surveys are being made by this company for the construction of a railway to connect Cushing, Tulsa and Drumright. F. M. Bisbee, Amarillo, Tex., is Ch. Engr. Western Lines.

Idaho—Lewiston, Nezperce & Eastern Ry.—This company has been incorporated to construct a railway from Lewiston to Nezperce, Idaho. A number of branch lines will also be built. Z. A. Johnson, Lewiston, is one of the incorporators.

Washington—Northern Pacific Ry.—Plans are being prepared by this company for the extension of its line from Toppenish, Wash., to the new town of Saluskin. A. R. Cook, Tacoma, Wash., is Prin. Asst. Engr.

Washington—Tacoma Eastern R.R.—According to press reports this company contemplates the construction of a railway from Morton, Wash., to connect with the line of the Onalaska Lumber Co. E. O. Reeder, Seattle, Wash., is Ch. Engr.

Alberta—Brule, Grand Prairie & Peace River R.R.—This company has applied for a charter to construct a railway from Brule Lake north to Grand Prairie, thence to a junction with the Pacific Great Eastern in the Peace River section; also to build a branch from Grand Prairie crossing the Peace River near Dunvegan, to a junction with the projected Pacific, Peace River & Athabasca at the Montagneuse River. The incorporators include D. R. McDonald, Alexandria, Ont.; C. L. Hervey, Montreal, Que.; T. A. Burgess, R. H. Pringle and L. Cote, Ottawa, Ont.

ELECTRIC RAILWAYS

Boston, Mass.—The Bay State St. Ry. Co. contemplates the extension of the Highland Circuit line over what is known as the Highland loop. R. S. Goff, Boston, is Vice-Pres. and Gen. Mgr.

New Britain, Conn.—Preliminary arrangements are being made by the Connecticut Co. for the extension of its lines in the northwestern section of the city. F. L. Beardsley, New Britain, is Supt.

Willimantic, Conn.—The Willimantic & Manchester St. Ry. Co. has been incorporated to construct an electric railway south of the tracks of the Central Vermont R.R. where connection may be made with the tracks of the Connecticut Co., thence through Pleasant St. and connecting streets to Columbia, thence extending through to the towns of Andover, Coventry, Bolton, and Manchester to a point in Manchester near Manchester Green where connections can be made with the tracks of the Connecticut Co. Among those interested are T. J. Spellacy and Joseph I. Kopelman, Hartford, and Edward M. Yeomans, Andover.

Buffalo, N. Y.—The City Council has granted a franchise to the International Ry. Co. to double-track its line on Ferry St. from Hampshire to Niagara St. J. C. Sheldon, Buffalo, is Pur. Agt.

Allentown, Penn.—The Lehigh Valley Transit Co. contemplates the reconstruction of its tracks on various streets. W. W. Wysor is Ch. Engr.

Blue Ball, Penn.—According to press reports Jacob Hartz, Blue Ball, is interested in the construction of an electric railway to connect Blue Ball, Elverson, Churchtown and Phoenixville, about 15 miles.

Washington, D. C.—The Washington & Maryland Ry. Co. has applied to the Public Utilities Commission for permission to construct an electric railway on Kansas Ave. and other streets in Washington. Paul Sleman, Colorado Bldg., Washington, is Secy.

Worthington, W. Va.—The Monongahela Valley Traction Co. contemplates the construction of an extension from Worthington to Farmington. S. B. Miller, Fairmont, is Ch. Engr.

Miami, Fla.—The Ft. Myers, Marco Bay & Miami Ry. Co. is making surveys for the construction of its proposed interurban railway to connect Ft. Myers, Naples, Marco Bay and Miami, about 50 miles. W. B. Clay, Arcadia, is Engr.

Lorain, Ohio—The Lorain St. Ry. Co. has applied to the City Council for a franchise to extend its lines in Lorain. L. K. Burge, Sandusky, is Gen. Supt.

✚Sciotoville, Ohio—The contract for building the extension between Sciotoville and Ironton has been awarded by the Ohio Valley Traction Co., Portsmouth, Ohio, to O. S. HORD, Maysville, Ky., and A. KEITHLY, Huntington, W. Va.

Chesterton, Ind.—The Gary & Interurban Ry. Co. plans an extension from Chesterton to Porter. C. W. Chase is Secy.

Aurora, Ill.—The Aurora & Mendota Electric Ry. Co. has applied to the City Council for a franchise to construct an electric railway in Aurora. This is part of a proposed line to connect Bristol, Plano, Sandwich, Somonauk, Leland, Earlville, Mendota and Princeton. Noted Nov. 26, 1914.

Duluth, Minn.—An extension from Tenth to 16th St. is contemplated by the Duluth St. Ry. Co. J. Carson is Ch. Engr.

Hutchinson, Kan.—The Hutchinson Interurban Ry. Co. plans to build an extension on Ave. F. James E. Humbert is Gen. Mgr.

Kalispell, Mont.—The Flathead Development Co. has applied for a franchise to construct an electric railway in Kalispell.

Marfa, Tex.—The construction of an electric interurban railway from Marfa to Ft. Davis, about 18 miles, is contemplated by B. Q. Musgraves and associates of Fort Worth.

Spokane, Wash.—The Big. Bend Transit Electric Ry. Co. is preparing plans for the construction of an electric railway from Spokane along the Spokane River to its junction with the Columbia River.

Los Angeles, Calif.—The Pacific Electric Ry. Co. contemplates the extension of its line south of Los Angeles to Ingledale, Lawndale and Hawthorne Acres. J. McMillan, Los Angeles, is Gen. Mgr.

Redwood City, Calif.—The Council has approved the ordinance granting a sale and transfer to the Redwood City Harbor Co. of all the right-of-way, title and interest recently granted by the town to Edward F. Fitzpatrick for the construction of an electric railway. Noted Mar. 18.

Hamilton, Ont.—Plans are being considered by the Hamilton St. Ry. Co. for an extension in the southwestern section of Hamilton, and the renewal of the tracks on York St. C. K. Green is Supt. of Const.

LIGHT, HEAT AND POWER

✚Lynn, Mass.—(Official)—The Lynn Gas & Electric Co. has awarded the contract for the foundation of a screening plant and water tower to the MacARTHUR CONCRETE PILE & FOUNDATION CO., 11 Pine St., New York, N. Y.

New London, Conn.—It is reported that the Connecticut College for Women will soon build a one-story power house. The estimated cost is $30,000. Noted July 23, 1914.

Holley, N. Y.—The citizens have voted to issue $5000 in bonds for the purpose of making improvements in the municipal electric-light system. It is stated that the system will be changed from 133 cycles to 60 cycles. C. H. Bartlett is Chn. of Light Comrs.

✚New York, N. Y.—(Borough of Bronx)—Bids were received Apr. 12 by the Department of Education for installing heating and ventilating apparatus and temperature regulation in the addition to Public School 12, Frisby Ave., between Benson Ave. and Overing St., Borough of Bronx, from: Leslie & Tracy, Inc., $11,883; D. J. Rice, $11,841; E. Rutzler Co., $12,054; Grimshaw & Sturges, $12,497; Wells & Newton, $12,923; James Curran Mfg. Co., $12,759; W. J. OLVANY, 177 Christopher St., New York, $11,572 (awarded contract); Blake & Williams, $12,692; Philp & Paul, $12,957. Noted Apr. 8.

✚Yorktown Heights, N. Y.—The Board of Managers of the New York State Training School for Boys has awarded the contract for the construction of a power plant for the school to CALLAHAN & PRESCOTT, Albany. Noted Jan. 7.

Bayonne, N. J.—It is reported that the Standard Oil Co., 26 Broadway, New York, is considering the installation of an electric power station at its Constable Hook plant.

Beavertown, Penn.—A special election will be held Apr. 17 to vote on the question of municipalizing the plant of the Beaver Electric Co.

Boyertown, Penn.—It is reported that the Boyertown Electric Co. contemplates extending its transmission lines to Gabelsville to supply electricity to that village. A. E. Groff is Supt.

+Bristol, Penn.—William H. Grundy & Co., manufacturer of yarns, etc., has awarded contracts for the construction of a power plant as follows: ROBERT LEDERLE, Philadelphia, for steel work; TRUSSED CONCRETE STEEL CO., Philadelphia, for steel sash; H. R. HEINICKE, INC., Philadelphia, for the chimney.

Harmony, Penn.—Chester & Fleming, Engr., Pittsburgh, Penn., has been commissioned by the Pittsburgh, Harmony & New Castle Ry. Co. to make surveys for two impounding dams on Conoquenessing Creek. S. H. Waddell, Diamond Bank Bldg., Pittsburgh, is Secy., Treas. and Pur. Agt. for the Pittsburgh, Harmony and New Castle Ry. Co.

New Castle, Penn.—The Mahoning & Shenango Ry. & Light Co., Youngstown, Ohio, plans to build a three-story, combination passenger and freight station, and electric substation on Washington St., New Castle. The estimated cost is $65,000. R. P. Stevens, Youngstown, is Pres. of the company.

Wilkes-Barre, Penn.—It is reported that the Keystone Collieries near Wilkes-Barre, will be equipped throughout with electrically operated machinery. Locomotives will take the place of mules, and electrical equipment will replace steam-driven machinery in the breakers.

Sprigg, W. Va.—Press reports state that the Tug River Power Co., Gary, W. Va., will build an electric-power plant at Sprigg. It will be of brick and reinforced concrete. The estimated cost is $30,000.

Union, W. Va.—The Town Council has granted a 50-year franchise to E. H. Butts, White Sulphur Springs, W. Va., to construct and operate an electric-light plant in Union. It is reported that energy to operate the plant will be obtained from the Virginia Western Electric Co., Clifton Forge, Va.

+Great Falls, S. C.—The Southern Power Co., Charlotte, N. C., has awarded the contract for the construction of a hydro-electric plant at Fishing Creek, three miles above Great Falls, to the HARDAWAY CONTRACTING CO., Columbus, Ga. The contract calls for a development of 30,000 hp., and it is expected that the plant will be in operation by Sept. 1, 1916. Charles I. Burkholder, Charlotte, is Mgr. of the Southern Power Co.

Winnsboro, S. C.—See item under "Water Supply-Irrigation."

South Jacksonville, Fla.—(Official)—Bids will be received until 3 p.m., Apr. 19, by the Board of Bond Trustees for a four-valve or uniflow engine for direct connection to a 125-kw., a 150-kw. or a 175-kw. generator with exciter and switchboard; a 60-hp. motor; one set gears and one feed pump. Harry Botts is Chn. of Bd. The J. B. McCrary Co., Third National Bank Bldg., Atlanta, Ga., is Engr.

+Cleveland, Ohio—The contract for the construction of a substation at East 79th St. and Woodland Ave., for the municipal electric-light system has been awarded to the CLEVELAND FIREPROOF CONSTRUCTION CO., 650 Rockefeller Bldg., Cleveland, at $24,000. Noted Mar. 25.

Mansfield, Ohio—Bids will be received until Apr. 23 by Orra Hursh, Dir. Pub. Ser., for lighting the streets of the city with electricity for a period of ten years. H. Whitford Jones, 1303 Citizens' Bldg., Toledo, is Consult. Engr.

Norwalk, Ohio—Bonds for $120,000 have been sold, the proceeds of which will be used for the construction of a municipal electric-light plant. It is reported that work will be started at once. Noted Feb. 5, May 21 and Sept. 24, 1914.

Youngstown, Ohio—Press reports state that the Republic Iron & Steel Co. will soon begin the construction of a new boiler plant to replace the present equipment of the Brown-Bonnell and Bessemer works. Automatic stokers and coal handling apparatus will be installed in the new plant. The cost is estimated at $300,000.

Blissfield, Mich.—The Electric Light Commission plans to build an addition to the municipal electric-light plant, and to purchase a new switchboard for a two-unit plant. Twenty-four hour service will be established. Ray H. Ellis is Supt. of the plant.

Stronghurst, Ill.—It is reported that M. F. T. Schierbaum, owner of the Stronghurst electric-light plant, will soon install new equipment including a 65-hp. Muenzel gas engine and one 75-hp. Muenzel suction gas producer; also one 45-kw. 60-cycle, three-phase, 2300-volt generator.

+Duluth, Minn.—The Board of Education has awarded the contract for heating equipment for the new Lincoln Junior High School to the AMERICAN HEATING CO. at $21,250. The contract for the electrical work was awarded to F. O. PETERSON, Duluth, at $4112.

McCracken, Kan.—It is reported that an electric-light plant will soon be installed in McCracken. Energy to operate the system will be obtained from the municipal plant at La Crosse.

Grant, Neb.—See item under "Water Supply—Irrigation."

Omaha, Neb.—The Omaha Ry. & Light Co. has been granted authority by the State Railway Commission to issue $130,000 in bonds and stock, the proceeds of which will be used for constructing new transmission lines and other improvements.

Clarksburg, Mo.—The Clarksburg Light & Power Co. contemplates the installation of an electric-lighting system to cost about $4000. About seven miles of transmission line will be built. Electricity will probably be obtained from the municipal plant at Tipton, Mo. G. P. Wilson, 324 Mifflin Ave., Wilkinsburg, Penn., is interested.

Urich, Mo.—It is reported that plans are being considered for the construction of a municipal electric-light plant in Urich. The estimated cost is $5000. H. Busse, Urich, is interested.

Luling, Tex.—It is reported that the Texas Power & Light Co., is negotiating with the City Council with a view to establishing an electric-light plant in Luling.

Post, Tex.—It is reported that the Post Power Co. will soon install an electric-lighting system in the town. H. W. Fairbanks is Vice-Pres., Mgr. and Cont. Agt.

Stillwater, Okla.—At an election to be held May 4 the citizens will vote on the question of granting a franchise to the Stillwater-Pawnee Gas Co. for the installation of a natural gas distributing system.

La Junta, Colo.—At the recent election, the citizens voted in favor of issuing $75,000 in bonds, the proceeds of which will be used for the construction of a municipal electric-light plant. Noted Dec. 17 and 31.

Loveland, Colo.—At the election on Apr. 6 the citizens voted in favor of a bond issue of $78,000 for the purpose of establishing a municipal electric-light plant. Noted Mar. 11.

Cathlamet, Wash.—Application has been made to the City Council by C. H. Reeves, Jefferson, Ore., for a franchise to install and operate an electric-light plant for a period of 10 years. At the expiration of that time, the city is to be given the privilege of purchasing the plant.

Seattle, Wash.—Bids will be received until 1:30 p.m., Apr. 21, by C. E. Remsberg, Secy. of the Seattle Port Comn., for the installation of an electric-light and power plant in the fruit storage building of the East Waterway Terminal Improvement.

Highgrove, Calif.—It is reported that the generating station of the Pacific Light & Power Corporation, Los Angeles, was destroyed by fire Mar. 28. The loss is estimated at $10,000. E. R. Davis, Los Angeles, is Gen. Mgr. of the company.

Santa Barbara, Calif.—The Santa Barbara Gas & Electric Co. plans to rebuild and enlarge its gas plant. A new generator and compressors will be installed. John T. Huntington is Mgr. and Cont. Agt.

Techachapi, Calif.—It is reported that the City Trustees plan to install a municipal electric-light system to cost about $4500.

Visalia, Calif.—The Mt. Whitney Power & Electric Co., Visalia, has been granted authority by the State Railroad Commission to issue $238,000 in bonds, the proceeds to be used for additions and improvements to its system. Fred G. Hamilton, Visalia, is Supt.

Brantford, Ont.—Bids will be asked soon for the installation of steam heating, plumbing and ventilating equipment in the Central School, Sheridan and George St. The estimated cost is $15,000. The Canadian Domestic Engineering Co., Ltd., 47 King St. W., Toronto, Ont., is Engr.

BRIDGES

St. Johnsbury, Vt.—Press reports state that the Town of St. Johnsbury has voted to pay 25% toward the cost of a new bridge over the Passumpsic River to replace the one carried away by the February flood. The state will pay 25%, and the Boston & Maine R.R. the remainder of the expense. The cost is estimated at $32,000. P. E. May is City Clk.

+Lawrence, Mass.—The Lawrence Bridge Commission has awarded the contract for 15,000 bbl. of cement to JOHN J. EVANS, at $1.59 per bbl.

+Mansfield, Mass.—The Board of Selectmen has awarded the contract for the construction of the Spring St. Bridge to POWERS BROS., Brockton. It will be of reinforced concrete.

★Northampton, Mass.—(Official)—Bids will be received until noon, May 4, by the Commissioners of Hampshire County, Court House, Northampton, for reconstructing two piers and repairing the superstructure of the Connecticut River Bridge between Northampton and Hadley. J. R. Worcester & Co., 79 Milk St., Boston, is Engr.-in-Charge. Frank A. Brooks is Chn. of County Comrs. Noted Dec. 18, 1913; Jan. 7, Feb. 18 and Mar. 11, 1915.

New Haven, Conn.—(Official)—We are advised by F. L. Ford, City Engr., that bids for the proposed Tomlinson Bridge over the Quinnipiac River in New Haven will not be asked before midsummer or early fall, and possibly not until the spring of 1916. The estimated cost is $400,000. Noted Apr. 1.

Canton, N. Y.—(Official)—Bids will be received until 2 p.m., May 5, by H. M. Barber, Clk. of the Town of Canton, for the construction of a concrete-steel arch over the Grasse River in the Village of Canton. The Concrete-Steel Engineering Co., Park Row Bldg., New York, N. Y., is Engr. Ceylon G. Chaney is Town Supvr.

Syracuse, N. Y.—It is reported that the City Council has passed an ordinance for a $12,000 bond issue for the purpose of building a new bridge over Onondaga Creek at West Taylor St. to replace the present structure which has been condemned. W. T. Wooley is City Engr.

Lambertville, N. J.—The Board of Chosen Freeholders of Hunterdon County, Flemington, will build a new bridge over Swan Creek on South Union St., Lambertville. Grant Davis, County Engr., will prepare plans and supervise the construction of the bridge. Noted Mar. 18.

Newark, N. J.—See item under "Miscellaneous."

New Brunswick, N. J.—Bids will be received until Apr. 19 by the Board of Chosen Freeholders of Middlesex County for the construction of a concrete slab bridge over Green Brook at Madison Ave., Dunellen. Plans were prepared by Alvin B. Fox, County Engr., Perth Amboy. The bridge will be built jointly by Middlesex and Somerset Counties.

+Somerville, N. J.—(Official)—The Board of Chosen Freeholders of Somerset County has awarded the contract for the construction of five county bridges to BURKE & BONHAM, Plainfield, at $11,448. J. Doughty, Jr., is County Engr. Noted Mar. 18.

Marcus Hook, Penn.—(Official)—Bids will be received until 10 a.m., May 3, by the Commissioners of Delaware County, Media, for a reinforced-concrete bridge on the Post Rd. over Hook Creek at Marcus Hook. John Griffin, Media, is Clk. of Comrs. Noted Apr. 8.

★Media, Penn.—(Official)—Bids will be received until 10 a.m., May 3, by the Commissioners of Delaware County for the construction of a bridge over Ridley Creek on the line of Baltimore Pike between Middleton and Upper Providence Townships. Orion L. Davis is County Controller.

Norristown, Penn.—The Commissioners of Montgomery County have decided to build a concrete bridge over Stony Creek at Stanbridge St., Norristown. The estimated cost is $30,000.

Philadelphia, Penn.—(Official)—We are advised by Jonathan Jones, Asst. Bridge Engr., Bureau of Surveys, that ordinances have been passed for the following bridges, and that bids for their construction will soon be asked: Bridge at Fifth St. over North Pennsylvania R.R., 70 ft. wide, estimated cost, $70,000; Diamond St. over Connecting Ry., 60 ft. wide, estimated cost, $75,000; Cambria and A St. over Richmond Bridge and Philadelphia & Reading Ry., 52 ft. wide, estimated cost, $62,000; Third St. under Philadelphia, Newtown & New York R.R., estimated cost, $32,000; Holme Ave. over Pennypack Creek, two 50-ft. and one 80-ft. spans, estimated cost, $80,000; 58th St. over Baltimore Central R.R., 60 ft. long, 30 ft. wide, estimated cost, $18,000; Fisher Ave., under North Pennsylvania R.R., estimated cost, $32,000; Whitby Ave., over Baltimore Central R.R., estimated cost, $42,000; Sherwood Ave. over Indian Run, 20 ft. long, 56 ft. wide, estimated cost, $30,000.

Pittsburgh, Penn.—(Official)—Bids will be received until noon, Apr. 23, by R. J. Cunningham, Controller of Allegheny County, for creosoted wood block floors on a number of county bridges. J. G. Chalfant, Court House, Pittsburgh, is County Engr.

Suffolk, Va.—(Official)—Bids will be received until noon, Apr. 22, by the Clerk of the Circuit Court of Nansemond County for the construction of a bridge over the Nansemond River near Suffolk. It will have a 105-ft. draw span and two 19-ft. approaches.

Ranger, W. Va.—(Official)—Bids will be received until 1 p.m., May 3, by the Lincoln County Court, Hamlin, for the construction of a steel highway bridge over the Guyandotte River at Ranger. It will have one 192-, one 82- and one 42-ft. span with a 16-ft. roadway. About 600 cu.yd. concrete masonry will be required. A. C. Parsons is Pres. of the Lincoln County Court. Oliver & Maupin, Huntington, W. Va., is Consult. Engr. Noted Apr. 1.

Savannah, Ga.—It is reported that William B. Stilwell and associates, of the East Georgia Ry. Co. plan to construct a 600-ft. bridge across the Cannochee River.

Wedowee, Ala.—(Official)—Bids will be received until noon, Apr. 30, by the Board of Commissioners of Randolph County for the construction of four steel bridges on the Wedowee and Roanoke State Highway. John T. Hefflin is Probate Judge of Randolph County. M. F. Ussery is Chn. of County Comrs.

Natchitoches, La.—(Official)—Bids will be received until 10 a.m., May 3, by G. H. Pierson, Pres. Parish Police Jury, for a steel bridge over the Cane River, about nine miles below Natchitoches. W. F. Cooper is Engr.

✚Clinton, Tenn.—Press reports state that the Bridge Committee of Anderson County has awarded the contract for three steel bridges across the Clinch River to the VINCENNES BRIDGE CO., Vincennes, Ind., at $50,700 for the three. They will be located at Clinton, Moore's Ferry and Edgemoor. Noted Jan. 21, Feb. 18 and Mar. 18.

Akron, Ohio—(Official)—Bids will be received until 11 a.m., Apr. 19, by the Board of Commissioners of Summit County for paving the concrete bridge on North Howard St. Extension between Akron and Cuyahoga Falls. C. L. Bower is Clk. of Comrs.

Akron, Ohio—(Official)—Bids will be received until 11 a.m., Apr. 28, by the Board of Commissioners of Summit County for the following bridge work: Rebuilding the Feeder Bridge on Manchester Rd.; superstructure and substructure of the Louis Young Bridge on Manchester Rd.; substructure and superstructure of the Peninsula Canal Bridge, Boston Township; C. L. Bower is County Audr.

✚Eaton, Ohio—(Official)—The Board of Commissioners of Preble County has awarded the contract for the construction of a concrete arch over Twin Creek on the Salem Rd., Harrison Township, to the ROCHESTER BRIDGE CO., Cincinnati, for the substructure and the BROOKVILLE BRIDGE CO., Brookville, Ohio, for the superstructure. The cost of the bridge complete will be $13,160. The contract for a bridge over Paint Creek in Somers Township was awarded to the BURK CONSTRUCTION CO., Newcastle, Ind. Noted Mar. 18.

Jefferson, Ohio—Bids will be received until May 3 by the Board of Commissioners of Ashtabula County for the construction of a bridge over Mill Race, Harpersfield Township. A. V. Hillyer is Clk. of County Comrs.

✚Marion, Ohio—The Board of Commissioners of Marion County has awarded the contract for the Retterer Bridge over the Whetstone River in Richland Township to the FRITZ-RUMER-COOK-GRANT CO., Columbus. Eleven other bids were received. Noted Mar. 18.

New Lexington, Ohio—(Official)—Bids will be received until 10 a.m., Apr. 19, by the Board of Commissioners of Perry County for the substructure of a bridge over Jonathan Creek at Glenford, Hopewell Township. Clyde M. Foraker is County Audr.

✚Poast Town, Ohio—The Commissioners of Butler County, Hamilton, have awarded the contract for the construction of a bridge over the Miami River, and repairs to the present abutments, to the OREGONIA BRIDGE CO., and the ARPP-SIMPSON CO. respectively. List of bidders noted Mar. 18.

Toledo, Ohio—(Official)—Bids will be received until 10 a.m., Apr. 30, by the Board of Commissioners of Lucas County for repairs on a number of bridges and the construction of three new culverts. Charles J. Sanzenbacher is County Audr.

Warren, Ohio—(Official)—Bids will be received until 1 p.m., Apr. 26, by the Board of Commissioners of Trumbull County for the construction of the substructure of the Johnston Bridge over Center Creek on the South Center Rd., Mesopotamia Township. W. R. Harrington is County Audr.

✚Boonville, Ind.—(Official)—The Commissioners of Warrick County have awarded the contract for the construction of three bridges to the EAST ST. LOUIS BRIDGE CO., East St. Louis, Ill., at $7000. Noted Mar. 18 and Apr. 1.

Converse, Ind.—(Official)—Bids will be received until noon, May 5, by the Board of Commissioners of Miami County, Peru, for the construction of a steel or concrete bridge at Converse. The estimated cost is $7000. Frank K. McElheny, Peru, is County Audr. Noted Apr. 1.

Muncie, Ind.—(Official)—Bids will be received until 10:30 a.m., Apr. 17, by the Board of Commissioners of Delaware County for the construction of four bridges, three in Salem Township and one in Township 20. Francis M. Williams is County Audr.

✚Pendleton, Ind.—The Board of Commissioners of Madison County, Anderson, has awarded the contract for the construction of a reinforced-concrete bridge over Fall Creek at Pendleton to FINLEY & CO., Noblesville, at $4174. Noted Mar. 18.

✚Scottsburg, Ind.—(Official)—The Commissioners of Scott County have awarded the contract for the construction of several bridges and culverts to FRANK CLARK, Scottsburg. There were four other bidders. Noted Mar. 25.

Jackson, Mich.—(Official)—We are advised by C. E. Chappell, City Mgr., that the time for receiving bids for the construction of the Mechanic St. Bridge has been extended from Apr. 6 to 7 p.m., Apr. 27. A. W. D. Hall is City Engr. Noted Mar. 4 and Apr. 1.

Bloomington, Ill.—(Official)—Bids will be received until 2:30 p.m., Apr. 17, by the County Superintendent of Highways, Court House, Bloomington, for the construction of Section 8 and 9 Drainage Bridge in West Township, and Section 14 Drainage Bridge in Empire Township. R. O. Edwards, Bellflower, is County Supt. of Highways.

✚Galesburg, Ill.—(Official)—The Highway Commission of Knox County has awarded the contract for the construction of seven reinforced-concrete bridges in Victoria, Chestnut and Orange Townships to CAPPERMORE & DEYO, at $5292. H. M. Butt is County Supt. of Highways.

Mt. Carroll, Ill.—(Official)—Bids will be received until 1 p.m., Apr. 17, by L. P. Scott, Supt. of Highways of Carroll County, for the construction of eight reinforced-concrete bridges and culverts in the county. The estimated total cost is $11,494.

Milwaukee, Wis.—It is reported that, at the election held Apr. 6, the citizens voted in favor of issuing $240,000 in bonds for the purpose of building a bridge over the Milwaukee River at North Ave. Plans are being prepared by J. C. Pinney, Supt. of Bridges, Dept. of Pub. Wks. F. G. Simmons is Comr. of Pub. Wks.

✚Clinton, Iowa—(Official)—The Board of Supervisors of Clinton County has awarded the contract for the construction of about 20 county bridges to JOHN R. KANE, Charlotte, Iowa, at $17,597. There were 19 other bids received. F. G. Hansen is County Audr. Noted Apr. 1.

✚Marion, Iowa—The Board of Supervisors of Linn County has awarded contracts for the construction of bridges and culverts as follows: ILLINOIS STEEL BRIDGE CO., $11,695; A. P. MUNSEN, $7870; MISSOURI CONSTRUCTION & BALLAST CO., $7230; JAMES WILEY, Marion, $3875; PERRY PAYNE, Marion, $2218.

✚Mason City, Iowa—The Board of Supervisors of Cerro Gordo County has awarded the contract for the construction of 19 concrete bridges to COLE BROS., Ames, at $19,273. There were 12 bidders for the work. It is reported that the contract has been sublet to WILLIAM HINKLE, Mason City. Noted Jan. 21 and Feb. 18.

✚New Hampton, Iowa—(Official)—The Board of Supervisors of Chickasaw County has awarded the contract for the construction of five steel-truss bridges to the PAN AMERICAN BRIDGE CO., Newcastle, Ind., at $13,000. P. E. McGinn is County Audr. Noted Mar. 11.

✚Jackson, Minn.—(Official)—The Commissioners of Jackson County have awarded contracts for bridges as follows: WHITEWATER BRIDGE CO., Whitewater, Wis., Bridges Nos. 1629, 1706, and a reinforced-concrete culvert at $2145, $1045 and $1095 respectively; WILLIAM O'SHEA & SONS, St. Paul, Bridge No. 1702, at $1244; GREVE & BOHMKE, Jackson, Bridge No. 1144, at $2784. P. D. McKellar is County Audr. Noted Apr. 1.

✚Minneapolis, Minn.—The City Council has awarded the contract for 1,000,000 ft. of lumber for the Third Ave. Bridge to the NORTHLAND PINE LUMBER CO., at $21,180. The contract for the steel for the bridge was awarded to the ILLINOIS STEEL CO., Chicago, Ill., at $8000.

Moorhead, Minn.—(Official)—Bids will be received until 11 a.m., Apr. 27, by A. O. Houglum, Audr. of Clay County, for the construction of State Bridges Nos. 1633 and 1657.

Red Wing, Minn.—(Official)—Bids will be received until 2 p.m., Apr. 21, by the Auditor of Goodhue County for the construction of a number of state bridges.

✚McCook, Neb.—The Commissioners of Redwillow County have awarded the contract for all county bridge work during the year to the STANDARD BRIDGE CO., Omaha. Noted Mar. 25.

✚North Platte, Neb.—The State Department, Lincoln, and the Board of Commissioners of Lincoln County have awarded the contract for the construction of a bridge over the Platte River at North Platte to the CANTON BRIDGE CO., Canton, Ohio, at $43,975. Noted July 23, Sept. 24 and Feb. 18.

✚Rawlins, Wyo.—The Board of Commissioners of Carbon County has awarded contracts for bridge construction as follows: LEVY CONSTRUCTION CO., Denver, Colo., at $4325, for a steel bridge over the Platte River at French; OMAHA STRUCTURAL STEEL CO., Omaha, Neb., at $3949, for bridge over Encampment Creek at Baggott Rocks; PETRY-MOULTON CO., Cheyenne, $2190, for bridge over Medicine Bow River, $1300 for bridge over Cow Creek, and $1440 for bridge over Spring Creek.

✚★Billings, Mont.—The Board of Commissioners of Yellowstone County has awarded the contract for the construction of the Duck Creek Bridge to the SECURITY BRIDGE CO., Billings, at $31,950. Noted Oct. 15 and 29, Nov. 19, Dec. 17, Feb. 11 and Mar. 4.

Osceola, Ark.—See item under "Miscellaneous."

Hempstead, Tex.—It is reported that the Houston & Texas Central R.R. plans to construct a new steel bridge across the Brazos River near Hempstead. F. T. Jeans, Ennis, is Supt. of Bridges and Bldgs.

Chandler, Okla.—(Official)—All bids received Apr. 5 by the Commissioners of Lincoln County for the construction of three steel bridges across the main channel of the Deep Fork Drainage District were rejected. J. C. Pringey is County Clk. Noted Apr. 1.

Acme, N. M.—The Board of Commissioners of Chaves County, Roswell, has been petitioned to build a new bridge over the Pecos River near Acme. The estimated cost is $12,000.

Salt Lake City, Utah—(Official)—We are advised by W. D. Beers, State Engr., that the bills recently passed by the State Senate making appropriations amounting to $23,500 for the construction of three bridges, were all vetoed by the Governor. Noted Apr. 1.

Olympia, Wash.—Bids will be received until Apr. 19 by W. A. Hoage, City Clk., for the construction of a new concrete bridge to replace one recently destroyed. It will cost about $10,000. Noted Apr. 1.

Olympia, Wash.—Bids will be received until Apr. 26 by the Auditor of Thurston County for the construction of a concrete substructure and steel superstructure of a bridge over Perry Creek. The estimated cost is $11,500. W. H. Yeager, Jr., is County Engr. Noted Mar. 18.

Seattle, Wash.—It is reported that bids will be received until May 1 by the Board of Public Works for the construction of the drawbridge over the Duwamish Waterway at Eighth Ave., S. The estimated cost is $45,000. A. H. Dimock is City Engr. Noted Nov. 12 and Mar. 11.

✚Pendleton, Ore.—The Commissioners of Umatilla County have awarded the contract for the construction of 11 small steel bridges to the SECURITY BRIDGE CO., Spokane, Wash., at $6510. The contract for a bridge over the Umatilla River just above Pendleton was awarded to the ILLINOIS STEEL BRIDGE CO., Spokane, at $8998. Ten bids were received for the work.

Needles, Calif.—(Official)—We are advised by J. A. Sourwine, County Surv. of San Bernardino County, San Bernardino, that plans for the proposed bridge across the Colorado River, near Needles, at Topock, Ariz., are being prepared. The main span will be a three-hinged steel arch, 592 ft. long, with a plate girder approach span 120 ft. long, at each end. The abutments will be reinforced-concrete pedestals set in solid rock. The preliminary estimate of the cost, including concrete, is $85,000. Of this amount, the states of Arizona and California, and the Federal Government will each pay $25,000. San Bernardino and Los Angeles Counties, Calif., have agreed to divide the cost in excess of $75,000. The plans are expected to be completed by May 1, and bids will be asked as soon as the Department of the Interior has approved the plans. Bids will be received by the Department of the Interior, Office of Indian Affairs, and contracts must be awarded before June 30, when the Federal appropriation will lapse. Noted Aug. 13, Sept. 10 and Mar. 18.

✚London, Ont.—Contracts for the construction of a bridge over the River Thames on the Elgin Rd., Dorchester Township, have been awarded to the DOMINION STEEL CO., Toronto, at $3685, for the steel work, and RICHARD WALTHAM, Kerrwood, at $2900, for concrete work. The superstructure will have three spans of 75 ft. each.

✚St. Boniface, Man.—It is reported that the contract for the construction of a Strauss bascule bridge over the Red River at Provencher Ave., connecting the cities of St. Boniface and Winnipeg, has been awarded to the MANITOBA BRIDGE & IRON WORKS, LTD., Winnipeg, at $253,824. Noted June 18 and Aug. 6, 1914.

WATER SUPPLY—IRRIGATION

Belchertown, Mass.—A bill is before the Legislature providing for the issuance of $50,000 in bonds, the proceeds of which will be used for the water supply.

✚Boston, Mass.—Bids were received Apr. 2 for laying water mains in Harrison Ave., Perry, Washington and Worcester St. as follows: M. DeSISTO, at $9297 (awarded contract); James L. Pierce & Co., $10,284; Coleman Bros., $10,400; A. M. Cusack, $10,607; John Guarine, $11,074; John T. Shea, Jr., $11,279; Brune & Petitti, $11,395; John E. Lynch, $11,685; Charles J. Jacobs Co., $11,774; Anthony Baruffaldi, $11,890; M. Russo & Son Co., $12,140; Henry Spinach Contracting Co., $12,885; John A. Costello & Co., $13,582; James J. Coughlan Co., $14,650; Hugh Nawn Contracting Co., $15,040 and Joseph Long & Co., $20,256. Noted Mar. 25.

Cambridge, Mass.—(Official)—George A. Johnson, New York, N. Y., and 141 Milk St., Boston, has been retained by the city to prepare plans for the construction of a filtration plant. The total cost will be $300,000. Noted Mar. 25.

Batavia, N. Y.—Chester & Fleming, Pittsburgh, Penn., has been engaged, according to press reports, to make an investigation of the present water system with reference to the installation of a filtration plant.

Elmsford, N. Y.—Plans have been submitted to the Board of Trustees for the construction of a water system. An election will be held to vote on the question. J. E. Murray is Clk. Noted Mar. 25.

Gloucester, N. J.—An ordinance has been adopted by the City Council providing for the issuance of $26,000 in bonds, the proceeds of which will be used for the extension of the water system. Charles Blacksee is Mechanical and Supervising Engr. Noted Feb. 18.

✚Washington, N. J.—The contract has been awarded t JOHN W. HELLER, Newark, at $9222, by the Washingto Water Co. for constructing a 4,500,000-gal. reservoir.

✚Barnesboro, Penn.—The contract has been awarded to P. C. AZZARA for constructing a 500,000-gal. concrete line reservoir and for pipe to connect the reservoir with the water system. Charles E. Schlicher is Engr. Noted Oct. 29 an Mar. 25.

Erie, Penn.—(Official)—Chester & Fleming, Engr., Pittsburgh, has been retained by the city to prepare plans for the extension of the high service distribution system.

Harrisburg, Penn.—Bids will be received until Apr. 19 by the Superintendent of Public Safety, Room 10, Court House, for laying water mains in Sycamore, Carlisle and Agate St.

✚Harrisburg, Penn.—The contract has been awarded to the STANDARD CAST IRON PIPE & FOUNDRY CO., Bristol, at $21.18 per ton for pipe and $0.02½ per lb. for specials for pipe and specials for the water department for the year Apr. 1, 1915 to Apr. 1, 1916. Harry F. Bowman is Supt. of Water Wks.

Mt. Gretna, Penn.—Plans have been prepared for the construction of a 125,000-gal. reservoir in the Pennsylvania State rifle range for the State of Pennsylvania.

✚Reading, Penn.—The contract has been awarded by the Council to JAMES O'ROURKE, Seventh and Spring St., Reading, at $6550, for laying a 36-in. pipe line to the new Hegel Gehl reservoir. Pipe will be furnished by the city.

✚Sharon, Penn.—The contract has been awarded, according to press reports, to BOOTH & FLINN, Pittsburgh, at $40,000, by the Sharon Water Works Co. for the installation of a filtration plant.

Hagerstown, Md.—The capital stock of the Washington County Water Co. has been increased from $320,000 to $870,000. A storage reservoir will be constructed on South Mountain and other improvements will be made. Noted Mar. 18.

✚Indianhead, Md.—The contract for additional artesian water supply has been awarded to EDWARD CHRISTMAN, 403 East Main St., Massillon, Ohio, at $9890.

★Laurel, Md.—See item under "Sewers."

Richmond, Va.—E. E. Davis, Supt. of Water Wks., estimates that the extension of the water system in part of the annexed territory will cost $148,502. Charles E. Bolling is City Engr.

Columbia, S. C.—Press reports state that the citizens will vote June 8 on the question of issuing $300,000 in bonds, the proceeds of which will be used for the extension of the water system.

✚Gaffney, S. C.—The contract has been awarded to J. H. CURRY, Gaffney, for the construction of a cement lined reservoir.

Manning, S. C.—Bids will be received until Apr. 20 by J. C. Sprott, Comr. Pub. Wks., for constructing a municipal water system. Extension of date from Apr. 13. Noted Mar. 18 and Apr. 1.

Winnsboro, S. C.—Bids will be received until Apr. 15 for the purchase of $80,000 in bonds, the proceeds of which will be used for the construction of water, sewer and electric-light systems. Noted Aug. 20 and Mar. 18.

Dublin, Ga.—An election will be held June 8 to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the improvement of the water system and electric-light plant.

Key West, Fla.—Bids will be received until Apr. 17 by J. R. Valdes, Chn., Water Wks. Com., for water mains, hydrants, valves and for making connections. Noted Apr. 1.

Laurel, Miss.—Bonds for $60,000 will be issued by the City Commissioners, the proceeds of which will be used for making extensions to the water and sewer systems. T. G. McCallum is Mayor.

Cleveland, Ohio—Bids will be received until noon, Apr. 22, by Charles F. Schultz, Comr. of Purchases and Supplies, for constructing the steel work for the two shafts for the Central Ave. river tunnel of the water department.

✚Cleveland, Ohio—The contract has been awarded to F. R. JONES CO., 139 North Clark St., Chicago, Ill., by the city for excavation for the new Baldwin reservoir. Bids opened Apr. 2. Noted Mar. 25.

Marietta, Ohio—Chester & Fleming, Pittsburgh, Penn., has been retained by the Council to prepare plans for the construction of a reservoir on Jackson Hill, according to press reports.

Oxford, Ohio—Bids will be received until noon, Apr. 19, by the Board of Public Affairs for furnishing and installing two 72x16-ft. horizontal tube boilers with fittings and for 2000 ft. of 4-in. c.-i. pipe and 1750 ft. of 1-in. standard galvanized pipe.

✚Sandusky, Ohio—(Official)—The contract has been awarded to A. A. THATCHER, Toledo, at $37,839, for constructing a 42-in. intake in Sandusky Bay. Other bids were: Lake Shore Construction Co., $39,083; American Construction Co., $48,138; Great Lakes Dredge & Dock Co., $45,636; J. H. Baer, $61,052 and Shirley-Sheldon Dredge Co., $43,384. E. S. Wagner is Clk. Noted Mar. 25.

Wellington, Ohio—According to press reports, the citizens contemplate spending $35,000 for the improvement of the water system.

✚Bloomington, Ind.—The contract has been awarded to the WESTERN CAST IRON PIPE CO., Chicago, Ill., at $19,210, by the City Council for 828 tons of 12-in. water pipe.

Redkey, Ind.—A company has been incorporated with a capital of $25,000 by Oscar J. Current, George A. Harrop and C. C. Ayers, and will build a water system.

Ahmeek, Mich.—The citizens contemplate constructing a water system.

+Fremont, Mich.—The contract has been awarded to the TRAVERSE CITY IRON CO., at $11,960, for constructing a water system.

Schoolcraft, Mich.—(Official)—Bids will be received until Apr. 27 by O. A. Fellows, Village Clk., for constructing a water system. Noted Mar. 18.

Eureka, Ill.—An election will be held Apr. 20 to vote on the question of issuing $17,000 in bonds, the proceeds of which will be used for making extensions to the water system.

Waverly, Iowa—The Council contemplates spending $25,000 for the extension of the water and electric-light systems.

Menomonee Falls, Wis.—(Official)—At a recent election the citizens defeated the bond issue for $20,000, the proceeds of which would have been used for the improvement of the water system. J. W. Cannon is City Clk. Noted Mar. 25.

+Gilbert, Minn.—The contract has been awarded to the PITTSBURGH FILTER MFG. CO., Pittsburgh, Penn., at $25,785, for constructing a municipal filtration plant. Noted Jan. 14.

Minneapolis, Minn.—The Water Works Commission has authorized the construction of water mains in seven wards at an estimated cost of $47,897. About $500,000 will be spent for the improvement of the water system this year. William R. Young is Water Wks. Supt.

Watkins, Minn.—The citizens contemplate constructing a water system, the estimated cost of which is $10,000.

McPherson, Kan.—Bids will soon be received by A. Groesbeck for constructing a water system and a 400,000-gal. reservoir. H. A. Rowland is City Engr.

Newton, Kan.—According to press reports bids will soon be received for the construction of a water system. About nine miles of 16-in. pipe will be laid. F. E. Devlin, City Hall, is Engr.

Grant, Neb.—Bonds for $12,500 have been voted by the citizens, the proceeds of which will be used for the construction of a municipal water system and electric-light plant.

Ardmore, S. D.—An election will be held Apr. 20 to vote on the question of issuing bonds for $16,000, the proceeds of which will be used for the construction of a water system for domestic use and for irrigation. W. F. Fitzgerald is Clk.

Hitchcock, S. D.—The citizens contemplate issuing bonds, the proceeds of which will be used for the construction of a water system.

Sioux Falls, S. D.—An election will be held Apr. 20 to vote on the question of issuing $140,000 in bonds, the proceeds of which will be used for the extension of the water system. Noted Oct. 15 and 29, 1914, and Mar. 25, 1915.

Butte, Mont.—Bids have been submitted to the city for appraising the system of the Butte Water Co. as follows: Burns & McDonnell, Kansas City, $8500; Harper, MacDonald & Co., Butte, $9000; Standard Engineering Corporation, Helena, $8275; Gerharz, Jaqueth Engineering Co., Helena, $10,500 and A. K. Grimmer, New York, N. Y., $12,455.

★Lewistown, Mont.—(Official)—Bids will be received until May 10 by E. H. Holmboe, Secy., Winnett Irrigation Co., for metal flumes.

+St. Louis, Mo.—The contract for laying pipe from Bissell's Point to the Ft. Bellefontaine School has been awarded by the Board of Public Service to JOHN F. McMAHON, at $10,306. Noted Mar. 18.

Springdale, Ark.—The construction of water and sewer systems will not be undertaken on account of the decision of the Supreme Court. F. E. Reed is City Recdr. Noted Mar. 11.

Columbus, Tex.—An election will be held to vote on the question of issuing $8000 in bonds, the proceeds of which will be used for making improvements to the water system.

+Floydada, Tex.—The contract has been awarded to the N. S. SHERMAN MACHINE WORKS, Oklahoma, Okla., for pipe for making extensions to the water system.

Slaton, Tex.—According to press reports, the citizens contemplate constructing a water system at an estimated cost of $15,000.

Marshall, Okla.—(Official)—An election will soon be held to vote on the question of issuing $25,000 in bonds, the proceeds of which will be used for the construction of a municipal water system and an electric-light system. The Benham Engineering Co., Oklahoma, has been retained as Engr.

Redrock, Okla.—Bids will be received about May 1 by the City Clerk for constructing a water system, the estimated cost of which is $22,000. The Benham Engineering Co., Oklahoma, is Engr. Noted Jan. 14 and Feb. 11.

Bonners Ferry, Idaho—Plans are being prepared for the improvement of the water system of the Bonner Water & Light Co.

Kellogg, Idaho—The Council has appointed a committee to investigate the advisability of constructing a water system, the estimated cost of which is $125,000. The water will be obtained from Big Creek. Noted Nov. 12.

Roberts, Idaho—An election will be held Apr. 24 to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the installation of a water system. Noted Feb. 4.

Kent, Wash.—(Official)—Bids will be received until Apr. 19 by L. E. Price, City Clk., for laying 1500 ft. of 12- and 16-in. steel pipe and 400 ft. of 12-in. wood pipe. Noted Mar. 25.

Odessa, Wash.—Bids will be received until Apr. 19 by W. M. Nevins, City Clk., for a pump, pipe, pump rods and a brass cylinder for the water system.

Spokane, Wash.—Plans are being prepared by Morton Macartney, City Engr., for extensions to the water system. The estimated cost is $13,000.

+Sunnyside, Wash.—The contract has been awarded to the PACIFIC TANK & PIPE CO., at $11,345, for laying 4800 ft. of 46-in. pipe for the Outlook Irrigation District.

Florence, Ore.—An election will be held June 7 to vote on the question of issuing bonds for $100,000, the proceeds of which will be used for the construction of a water system.

Oceanside, Calif.—According to press reports an expenditure of $22,000 will be made for making improvements to the water system. Noted Oct. 29.

San Francisco, Calif.—The Board of Supervisors has appropriated $10,500 for the construction of a diversion dam in the Hetch Hetchy Valley and $40,000 for the construction of a diversion tunnel.

Sierra Madre, Calif.—The city contemplates laying a 4-in., 6-in. and 8-in. riveted steel pipe line about 7400 ft. in Santa Anita Cañon in connection with the water system. William F. Bixby, Mason Bldg., Los Angeles, is Engr.

Toronto, Ont.—The John Vehr Engineering Co. has applied to the City Architect for permission to construct additions to the filtration plant on Center Island. Noted Apr. 8.

SEWERS

Boston, Mass.—Bids were received Apr. 5 by the Department of Public Works for (a) sewerage work in Nikisch Ave., West Roxbury, and Richards St., Brighton, (b) sewerage work in Anawan Ave., West Roxbury Parkway, Pelton St., West Roxbury, and Mackin St., Brighton, as follows: W. L. Delan, (a) $1924, (b) $3493; John Guarine, (a) $1978, (b) $3930; James J. Conway, (a) $2222, (b) $3989; Frank Drinkwater, (a) $2283, (b) $3277; M. De Siste, (a) $2639; Antony Cefalo, (a) $2723; (b) $3666; Daddarie & Booth, (a) $2856, (b) $4378; John F. Lynch, (a) $3021, (b) $5521; R. Cartulle, (a) $3463; A. E. Daddarie, (b) $3461; Martine De Mattee Co., (b) $3864; Demenie Vazella, (b) $4016; Lewis Balbeni, (b) $4031. Noted Apr. 1.

Medfield, Mass.—Bids will be received until 2 p.m., Apr. 16, by the Board of Selectmen of Medfield for the construction of 100 ft. of 8-in. sewer in Main St., with manholes.

West Hartford, Conn.—The city will issue $10,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

Albany, N. Y.—The city contemplates constructing sewers in Akin Ave., Ring, Second, Fifth, Ninth and Birch St. Frank R. Lanagan is City Engr.

Batavia, N. Y.—The city contemplates improving its sewer system.

Buffalo, N. Y.—(Official)—Bids were received Apr. 3 by F. G. Ward, Comr. Pub. Wks., for the construction of an 8-ft. brick sewer in Swan and Seneca St. as follows: Joseph F. Stabell Co., $110,639; William C. Culliton-William Franklin, $138,682; Buffalo Dredging Co., $172,100; Dark & Co., $178,000. Noted Apr. 1.

Buffalo, N. Y.—(Official)—The Fahning-Carey Contracting Co. submitted the lowest bids at $4994 and $22,249 for sewers in Calais St. and Fillmore Ave., respectively. Noted Apr. 1.

Huntington, N. Y.—(Official)—Plans have been approved by the State Department of Health for a sewer system and sewage-treatment works. Bids will be received about May 1. George W. Fuller, 170 Broadway, New York, N. Y., is Engr. Noted Dec. 17 and Jan. 14.

+New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract has been awarded to PASQUELLE TOMASETTI, 1133 60th St., Brooklyn, at 86% of standard, for constructing sewers in 15th Ave. Noted Mar. 18 and Apr. 1.

+New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract for constructing sewers in East 27th St. has been awarded to FRANK MERINDINO, INC., 556 17th St., Brooklyn, at 70% of standard. Noted Mar. 18 and Apr. 1.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Apr. 21, by L. H. Pounds, Borough Pres., for constructing sewers in East 32nd St. from Ave. I to Ave. J, in East 27th St. from Ave. N to Kings Highway, in 55th St. from 15th to 17th Ave., for constructing sewer basins on each side of Ocean Ave. from Ave. J to Ave. K and on the southeast corner of Albany Ave. and Eastern Parkway.

+New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Apr. 9 by L. H. Pounds, Borough Pres., for constructing sewers in Tompkins Ave. from Greene Ave. to Fulton St., in Fulton St. from Tompkins Ave. to Brooklyn Ave., and in Brooklyn Ave. from Fulton St. to a point about 65 ft. south of Fulton St., as follows: LITCHFIELD CONSTRUCTION CO., 23 Flatbush Ave., Brooklyn, at $273,849 (awarded contract); J. F. Cogan Co., $289,585; Newman & Carey Co., $288,980; and James O'Leary, $296,397.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until noon, Apr. 20, by Charles J. McCormack, Borough Pres., for constructing a combined sewer in Main Ave. from Clove Ave. to De Kalb St.

+Port Chester, N. Y.—(Official)—Bids were received Apr. 5 by the Board of Trustees for (a) sewers, (b) tunnel, (c) pump house and sedimentation tanks as follows: W. J. MERTZ, (a) $47,215 (awarded contract), (c) $43,500; J. J. Hart, (a) $49,293, (b) $22,690; (c) $72,000; DALY & MERRITT, (a) $47,766, (b) $22,709 (awarded contract), (c) $61,531; Simon Russek, (a) $58,754, (b) $15,966, (c) $58,900; Fusco Construction Co., (a) $46,885, (b) $24,150, (c) $72,000; Frank Nordone, (a) $50,216 (b) $16,247, (c) $58,863; Lincoln Steele Co., (a) $57,946, (b) $38,926, (c) $71,800; SUBURBAN ENGINEERING CO., (c) $39,700 (awarded contract); F. C. Wertz, (c) $45,315; C. F. Carroll, (b) $30,170. F. S. Odell is Engr. Noted Mar. 25.

Rochester, N. Y.—Bids will soon be received by F. Pifer, Secy. Bd. of Contract and Supply, for the construction of a sewer in Hollenback and other streets. Estimated cost, $70,000. C. L. Raymond is Asst. City Engr.

Rochester, N. Y.—The city contemplates constructing an outlet sewer in Thurston Rd., Gardner and West Ave. The estimated cost is $34,000.

+Rochester, N. Y.—The Board of Contract and Supply has awarded the contract for the construction of a sewer tunnel in Main and Front St. to MICHAEL H. RIPTON at $117,715. Noted Mar. 25.

Watertown, N. Y.—Bids will be received until 8 p.m., Apr. 16, by E. W. Sayles, City Engr., for the construction of an 8-in. tile sanitary sewer in Cooper St. from the Trunk Sewer to Highland Ave.

Hammonton, N. J.—The City Council will issue $108,500 in bonds, the proceeds of which will be used for constructing a sewer system and a sewage-disposal plant.

Maywood, N. J.—The State Board of Health has approved plans prepared by Alexander Potter, 50 Church St., New York, for the construction of a sewer system. Estimated cost, $25,000.

Newark, N. J.—See item under "Miscellaneous."

Trenton, N. J.—The Board of City Commissioners has authorized the construction of sewers in Smith Ave. and Stanton St.

Beaver Falls, Penn.—An election will be held May 15 to vote on a bond issue of $40,000 for the construction of a sewage-disposal plant, an outfall sewer and for the completion of the sanitary sewer system.

Indiana, Penn.—Bids will be received until May 3 by Thomas Pealer, Engr., for constructing one mile of 8-in. and ½ mile of 6-in. pipe sewers.

Punxsutawney, Penn.—The city contemplates constructing sewers and a sewage-disposal plant. Thomas Pealer, Indiana, is Engr.

Wilkes-Barre, Penn.—The borough has been instructed by the State Department of Health to have plans prepared by Jan. 1, 1916 for a sewage-disposal plant.

✚★York, Penn.—(Official)—Bids were received Apr. 2 for (a) construction of a sewage-disposal plant and pumping station, (b) machinery, as follows: BENNETT & RANDALL, Greensburg, (a) $54,553 (awarded contract), (b) $14,280 (irregular); George C. Souder, Lancaster, (a) $55,740; Cantrell Construction Co., Philadelphia, (a) $58,553; Pitt Construction Co., Pittsburgh, (a) $63,246, (b) $17,000; C. R. Simpson, New York, N. Y., (a) $63,693, (b) $16,600; T. L. Eyre, Philadelphia, (a) $64,200; D. C. Serber, New York, N. Y., (a) $65,326; Suburban Engineering Co., New York, N. Y., (a) $66,893; F. B. Beasman & Co., Baltimore, Md. (a) $68,026; A. B. Kraft, York, (a) $69,000; F. J. Boas, Philadelphia, (a) $70,307, (b) $17,500; Slack & Slack Co., Baltimore, Md., (a) $72,392; Kelley-McFeeley, Camden, N. J., (a) $73,387; Heyman & Goodman Co., Jersey City, N. J., (a) $101,380, (b) $19,700; Pacific Flush Tank Co., New York, N. Y., (b) $17,980; M. L. Bayard, Philadelphia, (b) $18,000; Lewis & Roth Co., Philadelphia, (b) $18,857. Noted Mar. 4.

Baltimore, Md.—Bids will be received by the Board of Awards until Apr. 21 for constructing lateral sewers and house connections in District No. 37-A. Calvin W. Hendrick is Ch. Engr. of Sewerage Comn.

★Laurel, Md.—Bids will be received until 2 p.m., May 1, by George W. Waters, Jr., Mayor, for the construction of a sanitary sewer system, water mains and other water-works. Harry Stevens, Union Trust Bldg., Washington, D. C., is Engr. Noted Mar. 25.

✚Richmond, Va.—The contract for the construction of the Shockoe Creek sewer has been awarded to L. HANKINS, at $61,863.

✚Richmond, Va.—(Official)—The contract for the construction of a section of the Bacon quarter branch sewer has been awarded to L. HANKINS, at $54,671. Bids opened Apr. 2. Noted Apr. 1.

★Kinston, N. C.—(Official)—(Correction)—The lowest bid submitted Mar. 23 for sewerage work was that of Dunn & Lalland Bros., Birmingham, Ala. Noted Mar. 4.

Newbern, N. C.—See item under "Miscellaneous."

Old Fort, N. C.—Plans have been prepared by the J. B. McCrary Co., Atlanta, Ga., for constructing sewers. The estimated cost is $10,000.

Columbia, S. C.—An election will be held June 8 to vote on a bond issue of $200,000, the proceeds to be used for sewerage work.

Winnsboro, S. C.—See item under "Water Supply-Irrigation."

Augusta, Ga.—The lowest bid submitted for the construction of 900 ft. of brick sewer, 1200 ft. of brick sewer, 6½ ft. in diameter, in the alley between Chestnut and Forest St., from Milledgeville to Wrightsboro Rd., was that of the McKenzie Construction Co., at $19,650.

Macon, Ga.—Bids will be received until Apr. 30 by D. S. Jones, City Clk., for the construction of a sewer in West Vineville, estimated to cost $15,000, also a 300-ft. sewer in Culver St. to Rogers Ave. J. J. Gaillard is City Engr. Noted Oct. 8 and Mar. 25.

Laurel, Miss.—See item under "Water Supply-Irrigation."

Nashville, Tenn.—The City Commissioners have appropriated $3500 for an extension of the west end brick trunk sewer and $4000 for clay lateral sewers.

Dayton, Ky.—Bids will be received until 8 p.m., Apr. 19, for constructing sewers as follows: 12-in. vitrified pipe sewer in 10th Ave. from Terrace Ave. to McKinney St.; 21-in. vitrified pipe sewer in Terrace Ave. from Ninth to 10th Ave.; 12-in. vitrified pipe sewer in Brooklyn Ave. from Dayton to Berry Ave.; and 15-in. vitrified pipe sewer in Dayton Ave. from Eighth to Brooklyn Ave.

Oakland, Ky.—The city contemplates constructing a pipe line sewer and septic tanks.

Paducah, Ky.—The city contemplates constructing a trunk sewer in the west end. George C. Wallace is Comr.

Akron, Ohio—The city has sold $500,00 in bonds, the proceeds of which will be used for the completion of the sewage-disposal plant.

Cleveland, Ohio—Bids will be received until noon, Apr. 22, by the Commissioner of Purchases and Supplies, Room 511, City Hall, for the construction of sewers in East 65th St., between Hough and Euclid Ave.; Kinsbury Run, from East 75th St. 200 ft. west, and St. Clair Ave., between London Rd. and East 171st St. Robert Hoffman, 405 City Hall, is Engr.

✚Dayton, Ohio—(Official)—The contract for constructing storm sewers has been awarded to HECKER & KIRCHNER, at $10,257, and WILLIAM HILT, Yellow Springs, at $20,831. Noted Apr. 8.

East Youngstown, Ohio—Bids will be received until noon, Apr. 26, by C. R. Anderson, Village Clk., for the construction of a sewer in Fairview Ave. from Wilson Ave. to Coitsville Rd.

Greenfield, Ohio—Plans are being prepared by H. L. Maddocks, Trust Bldg., Newark, for the construction of a sanitary sewer system and treatment plant.

✚Attica, Ind.—(Official)—Bids were received Mar. 29 by Weil Light, City Clk., for the construction of 1850 ft. of main sewer and 1500 ft. of lateral sewer as follows: M. W HOLBEN, Gary, $15,121 (awarded contract); Keneth Kuntz, Chicago, Ill., $15,474; William Fry, LaFayette, $15,531; Foulks Construction Co., Terre Haute, $15,834; Carson Payson Co., Danville, Ill., $16,123; Hatch & Son, Goshen, $16,137; R. Young is City Engr. Noted Mar. 25.

Hammond, Ind.—Bids will be received until 10 a.m., Apr. 16, by the Board of Public Works, for constructing sewers in Columbia Ave.

Muncie, Ind.—Bids will be received until 10 a.m., Apr. 17, by the Board of Public Works, for the construction of sewer No. 2 in Lincoln St.

Escanaba, Mich.—At a recent special election the citizens voted in favor of issuing $80,000 in bonds for constructing a sewer system.

Chicago, Ill.—Bids will be received until Apr. 16 by D. J. Glackin, Secy. Bd. Local Imp., for constructing drains in portions of Calhoun, Montrose and Pensacola Ave., West 87th and South Robey St.; also for constructing sewers in Concord and Augusta Pl., Ellis Ave., Rue and various other streets and alleys.

Galesburg, Ill.—Bids will soon be received for the construction of a sewer in the Third and Sixth Wards. The estimated cost is $60,000. F. Connolly is Engr.

Appleton, Wis.—Bids will be received until 9 a.m., Apr. 27, by E. L. Williams, City Clk., for the construction of a sewer in South River, Madison and Jefferson St.

✚Milwaukee, Wis.—The contract for constructing Plan No. 10 of the public sewer system has been awarded to JONES & ERBECK, Pittsburgh, Penn., at $282,000.

✚Oconomowoc, Wis.—The City Council has awarded the contract for the construction of a sewer system to A. C. SCHREITER, Manitowoc, at $5604. Noted Apr. 1.

✚Cedar Rapids, Iowa—The contract for constructing sanitary sewers in Eighth and H St. has been awarded to MESSNER & CO. Bids were opened Mar. 29.

✚Dubuque, Iowa—The contract has been awarded to C. B. McNAMARA & CO. for the construction of a storm sewer in Fifth Ave.

✚Grinnell, Iowa—(Official)—Bids were received Mar. 31 by A. C. Harriman, City Clk., for the construction of a sewer system as follows: (a) main sewers, (b) lateral sewers, (c) outlet sewers and disposal plant: WILLIAM F. RILEY, St. Louis, Mo., (a) $35,042 (awarded contract), (b) $31,009 (awarded contract); J. W. TURNER IMPROVEMENT CO., Des Moines, (a) $39,345, (b) $36,094, (c) $35,956 (awarded contract); Thomas Carey & Sons, Clinton, (a) $58,247, (b) $32,941, (c) $48,091; William Horrabin, Iowa City, (a) $47,592, (b) $43,222, (c) $40,626; Inter-Mountain Bridge & Construction Co., Tecumseh, Neb., (a) $36,913, (b) $35,149, (c) $46,861; Adams-Martin Construction Co., Centerville, (b) $38,909; Arthur A. Dobson, Lincoln, Neb., (b) $33,360; Dearborn Construction Co., Waterloo, (a) $48,173, (b) $46,007, (c) $39,698; Western Construction Co., Iowa City, (b) $39,828, (c) $42,371; A. W. Merrick, Boone, (c) $42,308; F. E. Young, Iowa City, (b) $35,247; W. D. Lovell, Minneapolis, Minn., (b) $39,959; Ward & Weighton, Sioux City, (c) $38,739; Alamo Engine & Supply Co., Omaha, Neb., (b) $39,353; D. E. Keeler Co., Davenport, (b) $37,534; H. J. Cathroe Co., Omaha, Neb., (a) $42,839, (b) $34,396; William C. Fraser, St. Paul, Minn., (b) $39,658; Henry Rees, Quincy, Ill., (a) $39,624, (b) $36,351. The Iowa Engineering Co., Clinton, Iowa, is Engr. Noted Mar. 25.

Duluth, Minn.—Bids will be received until 10 a.m., Apr. 16, by the Commissioner of Public Works, for the construction of a sanitary sewer in Ninth St. from 23rd to West 24th Ave.

Duluth, Minn.—Bids will be received until 10 a.m., Apr. 16, by R. Murchison, Comr. of Pub. Wks., for the construction of a sanitary sewer in Ninth St.

Soup City, Neb.—The citizens have voted $10,000 in bonds for the construction of a sewer system.

Kansas City, Mo.—See item under "Miscellaneous."

Osceola, Ark.—See item under "Miscellaneous."

Paragould, Ark.—The city contemplates the construction of a sewer system. The estimated cost is $25,000.

San Antonio, Tex.—Bids will be received until Apr. 19 by Fred Fries, City Clk., for the construction of a pumping station and a sanitary sewer system. Hans Helland is City Engr.

Afton, Okla.—Bids will be received about May 1 by the City Clerk for the construction of a sewer system. Plans prepared by the Benham Engineering Co., Oklahoma, Okla. Estimated cost, $37,000. Noted Dec. 3, Jan. 14 and 28.

✚Drumright, Okla.—It is reported that the contract for the construction of a sewer system has been awarded to the TOLBERT CONSTRUCTION CO. at $18,500. Noted Feb. 11.

✚Denver, Colo.—The contract for the construction of a sewer has been awarded to the GORDON & TAYLOR CONSTRUCTION CO., at $11,000. Noted July 23.

Lewiston, Idaho—Bids will be received until Apr. 26 by C. F. Loland, City Clk., for sewer construction in District No. 6 as follows: 5175 lin.ft. of 10-in. sewer pipe in place; 675 lin.ft. of 12-in. sewer pipe in place; 1850 lin.ft. of 10-in. sewer pipe in place; 3870 ft. of 8-in. sewer pipe in place; 23 manholes; 6 flush tanks; and 8 lamp wells.

Parma, Idaho—Bids will be received in May for the construction of sewers according to plans prepared by Fred J. McConnel, Caldwell. Noted Apr. 1.

Chehalis, Wash.—The City Council contemplates constructing a sewer system in the southern part of the city at an approximate cost of $60,000.

Spokane, Wash.—The city contemplates constructing a sewer system in the alley between Fairview and Frederick Ave. from Monroe to Potter St. The estimated cost is $12,000. Morton Macartney is City Engr.

+Portland, Ore.—The contract for the construction of the Stephens and East Clay St. district sewer has been awarded to AZAR & CO., at $4491.

Huntington Beach, Calif.—The Holland Construction Co., San Diego, was the low bidder at $11,900, for the construction of the outfall section of the municipal sewer system. Noted Mar. 11.

+Los Angeles, Calif.—The contract for the construction of a sewer in Russel Ave. from Western Ave. to Harvard Blvd., and other streets has been awarded to J. CHOLVICH at $7281.

Ocean Beach, Calif.—The lowest bid submitted for the construction of a sewer system was that of A. C. Hose, at $49,300. F. Lockwood is Engr. Noted Mar. 4 and 11.

Halifax, N. S.—The City Council plans to extend the sewer system and construct an intercepting sewer. Estimated cost, $150,000. F. W. W. Doane is Engr.

Dunnville, Ont.—The Town Council contemplates constructing 2800 ft. of tile drain in Canal St. Estimated cost, $4400. R. C. Kyd is Engr.

GARBAGE

★Manchester, N. H.—(Official)—Bids will be received until 2 p.m., Apr. 20, by the Board of Public Works, for constructing a refuse destructor. Samuel J. Lord is Engr. and Harry W. Spaulding is Chn. Bd. of Pub. Wks. Noted Sept. 24, 1914, and Feb. 11, 1915.

+Yonkers, N. Y.—The contract has been awarded to the BOOTH CONSTRUCTION CO., Yonkers, at $51,412, by the Board of Contract and Supply for building an incinerator. Noted Oct. 22.

Chicago, Ill.—Bonds for $700,000 have been voted by the citizens, the proceeds of which will be used for the completion of the garbage reduction works. Noted Apr. 8.

Lincoln, Neb.—The expenditure of $50,000 is contemplated by the City Council for the construction of a garbage disposal plant.

STREETS AND ROADS

Boston, Mass.—Bids will be received until Apr. 16 by the Public Works Department for macadam roadway and artificial sidewalks in Stratton St. and Neponset Ave., Dorchester, and in Convent Path, East Boston District. L. K. Rourke is Comn.

+Boston, Mass.—A contract for 3000 lin.ft. of state road at Grafton has been awarded to TORCHIA & BRYNE, at $7750. Other bids were: Middlesex Contracting Co., $7840; Bernik Construction Co., $8072; Alco Construction Co., $8389; F. E. Ellis, Melrose, $9187; C. E. Home, Millbury, $9297; J. A. Goffery, Medford, $10,187; H. J. Maguire, Worcester, $10,771; Antony Pullato, Lowell, $11,079. Noted Apr. 1.

+Boston, Mass.—A contract for 5200 lin.ft. of state road at Gloucester has been awarded to PERINI CONSTRUCTION CO., at $16,149. Other bids were: M. McDonough, Swampscott, $16,640; R. F. Hudson, Melrose, $16,660; J. J. McCarthy Co., $16,949; A. G. Tomaselle, $17,889; T. A. Moynahan, Hamilton, $18,290; Middlesex Contracting Co., Framingham, $18,359; Alco Contracting Co., $18,572; A. M. Cusack, $18,712; E. R. Nowell, Fitchburg, $20,943; J. A. Goffery, Medford, $21,276; Palmer Engineering and Construction Co., Peabody, $21,545; W. Cressy, Gloucester, $21,705; F. E. Ellis, Melrose, $22,815; D. J. Sheehan, Lynn, $23,495. Noted Apr. 1.

Boston, Mass.—Bids will be received until Apr. 17 by the Transit Commission for paving with wood blocks the entire length of Summer St., also until Apr. 24 for paving with wood blocks Boylston St. from Arlington St. to Bolyston Pl. Estimated cost of both, $100,000. E. S. Davis, 15 Beacon St., is Chf. Engr.

Boston, Mass.—Bids will be received until Apr. 20, by the State Highway Commission, for the construction of 15,300 lin.ft. of road in Bernardston; 9600 lin.ft. of road in South Hadley; 15,700 lin.ft. of road in Greenfield; 440 lin.ft. of road in Northbridge; 11,000 lin. ft. of road in Amherst and Hadley and 8000 lin.ft. of road in Raynham. Arthur W. Dean, 15 Ashburton Pl., is Chf. Engr.

+Boston, Mass.—The contract for asphalt and bitulithic pavement repairs for 1915 has been awarded to the CENTRAL CONSTRUCTION CO., at $31,750. The only other bid was that of Warren Bros. Co., $33,250. Noted Mar. 18.

+Boston, Mass.—The contract for hassam block pavement on Braintree St., Brighton District, has been awarded to JAMES DOHERTY, at $15,085. Other bids were: Charles J. Jacobs Co., $15,321 and John E. Quinn, $15,753. Noted Mar. 25.

Southbridge, Mass.—The town contemplates macadamizing the North Woodstock Rd., at a cost of $5000, $2000 of which will be paid by the state.

★Quincy, Mass.—(Official)—The contract has been awarded to JOHN CASHMAN & SON CO., Boston, at $63,700, for subgrading Furnace Brook Parkway from Quincy Shore Reservation to Hancock St. Other bids were: Jeremiah Sullivan, Cambridge, $111,630; D. M. Briggs & Co., Boston, $107,570; Geo. T. Randle Co. and Randle & Stoddard, East Boston, $97,250; J. P. O'Riorden, Charlestown, $94,505; Nathan S. Brock, Brookline, $94,450; Richmond F. Hudson, $94,025; John R. Burke, Boston, $92,880; Clark & Gore, Dorchester, $91,100; West Roxbury Trap Rock Co., Roxbury, $90,250; Middlesex Contracting Co., Framingham, $88,950; Farrell & Loud, Somerville, $87,023; Caputo & Giovannini, Boston, $86,300; A. William & Co., Boston, $83,000; Antonio G. Tomaselle, Dorchester, $82,275; Hugh Nawn Contracting Co., Roxbury, $80,450; H. P. Converse Co., Boston, $78,850; Peter Bompiani & Co., Boston, $75,780; Dennis F. Crowley, East Milton, $75,335; Coleman Bros., Boston, $70,875; Rowe Contracting Co., Boston, $70,850; James H. Fannon, Somerville, $69,650; Perini Construction Co., Ashland, $67,000. Noted Mar. 18.

Hartford, Conn.—See item under "Miscellaneous."

+Hartford, Conn.—Contracts for road work, bids for which were received by the State Highway Commissioner Mar. 22, were awarded as follows: South Windsor Township, about 8100 lin.ft. bituminous macadam on Deming St., to A. BRAZOS & SONS, Middletown, Conn., at $13,557. Bloomfield Township, about 6610 lin.ft. macadam on the Simsbury Rd., to the R. G. MILLER CONTRACTING CO., Hartford, Conn., at $8000; also about 6879 lin.ft. macadam on the Blue Hills Rd., to the B. D. PIERCE, JR. CO., Bridgeport, Conn., at $8473. Columbia Township, about 9964 lin.ft. gravel on the Columbia Green Rd., to the R. G. MILLER CONTRACTING CO., Hartford, Conn., at $15,334. Noted Mar. 18 and Apr. 1.

Hartford, Conn.—Bids will be received until 2 p.m., Apr. 19, by the State Highway Commission for state road work as follows:

Hampton Township, about 2975 lin.ft. native stone macadam construction. Specifications on file at Town Clerk's office, Hampton.

Old Lyme Township, about 8690 lin.ft. native stone macadam construction. Plans on file at store of J. F. Bugbee, Lyme.

Wethersfield Township, about 1013 lin.ft. bituminous macadam construction. Specifications on file at store of A. W. Hanmer, Wethersfield.

Rocky Hill Township, about 1445 lin.ft. plain or reinforced concrete. Specifications on file at Town Clerk's office, Rocky Hill.

★Albany, N. Y.—(Official)—Bids will be received until 1 p.m., Apr. 26, by Edwin Duffey, State Highway Comr., for furnishing bituminous material to the various counties.

Long Beach, N. Y.—Bonds for $200,000 were sold Apr. 3, the proceeds of which will be used for improving streets. Noted Mar. 25.

+New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract for improving New Lots Ave. has been awarded to the UVALDE ASPHALT PAVING CO., at $6527. Noted Mar. 18.

+New York, N. Y.—(Borough of Brooklyn)—(Official)—Contracts have been awarded for paving East 17th St., 54th St., and West 32d St. to the BROOKLYN ALCATRAZ ASPHALT CO., 407 Hamilton Ave., Brooklyn, at $4677, $82,455 and $46,225, respectively. Noted Mar. 18 and Apr. 1.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Apr. 21, by L. H. Pounds, Borough Pres., for improving Argyle Rd. from Ditmas to Newkirk Ave., Canarsie Lane from Nostrand to New York Ave., 61st St. from 12th to New Utrecht Ave., 38th St. from Tenth to Ft. Hamilton Ave., East Tenth St. from Ave. N to Ave. O, East 12th from Ave. R to Ave. S and 15th Ave. from 38th St. northerly to the right-of-way of the Brooklyn Rapid Transit R. R. Co.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 3 p.m., Apr. 22, by the Park Board, Municipal Bldg., for coarse and fine gravel, trap rock and trap rock screenings, cow bay sand for parkways in the Borough of Brooklyn. Cabot Ward is Pres. of the Park Bd.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until noon, Apr. 20, by Charles J. McCormack, Borough Pres., for improving First Ave. from Jersey to Pine St. and Belmont Pl. from Vine St. to Ft. Place.

Port Jervis, N. Y.—Bids will be received until Apr. 22 by John F. Cleary, City Clk., for paving Jersey Ave.

+Rochester, N. Y.—The contract for paving Culver Rd. with asphalt block has been awarded to FRANK V. BROTSCH, at $14,324.

+Schenectady, N. Y.—The contract for improving Dock St. has been awarded to the SCHENECTADY CONTRACTING CO., Schenectady, N. Y.

+Schenectady, N. Y.—A contract for paving the public market with stone filled asphalt has been awarded to J. F. SHANLEY CO., Newark, N. J.

+Watertown, N. Y.—A contract for paving a section of the Public Square with wood block has been awarded to WILLIAM F. COGLEY, Utica, at $28,822.

+★Bloomsbury, N. J.—(Official)—The contract for constructing 2.91 miles of water-bound macadam on the Bloomsbury-Still Valley Rd. has been awarded to E. P. ARBOGAST, Stroudsburg, Penn., at $43,131. Noted Mar. 11.

Buttzville, N. J.—The lowest bid received by the Board of Chosen Freeholders of Warren County, Belvidere, was that of Smith Bros., Hackettstown, N. J., at $43,131. Noted Feb. 4 and Mar. 11.

Camden, N. J.—Bids will be received until Apr. 19 by the Chairman of the Committee on Streets and Highways for improving Carter's Pl., Sixth and Division St.

Newark, N. J.—Bids were received Apr. 1 for paving Central Ave. from Broad St. to Plane St. as follows: Barber Asphalt Paving Co., $12,973; Glenfield Construction Co., $11,433; Newark Paving Co., $11,136; McMahon Construction Co., $11,024; John S. Geiger Sons Co., $11,489; Van Keuren & Son, $11,486; John E. Donovan, $11,622; Ralph Langrovamin, $11,996. Noted Mar. 25.

Newark, N. J.—Bids will be received until Apr. 22 for paving Elm Rd., Chester Ave., Ferdinand and Hunterdon St. Morris R. Sherrard is City Engr.

Newark, N. J.—See item under "Miscellaneous."

New Brunswick, N. J.—The Board of Chosen Freeholders of Middlesex County plans the improvement of the road from Keasbey to the Perth Amboy city line.

Plainfield, N. J.—(Official)—Bids were received Apr. o by the Common Council for constructing concrete pavement as follows: Weldon Contracting Co., Rahway, N. J., $4635; Hassam Paving Co., Worcester, Mass., $5720; Alfonzo Collucci, Plainfield, $5764; Burke & Bonham, Plainfield, $5869; C. H. Winans & Co., Elizabeth, $5898; Mobus Bros., North Plainfield, $6037. Noted Mar. 25.

+Somerville, N. J.—The contract for rebuilding the road from Larger Cross Roads, Bedminster Township to the Hunterdon county line has been awarded to JOHN La COMPT, Lakewood, N. J., at $53,715. Noted Mar. 11.

★Trenton, N. J.—(Official)—Bids will be received until 2:30 p.m., Apr. 20, by the Board of Chosen Freeholders of Mercer County, Trenton, for improving about three miles of Section 1, River Rd. John J. Power is Dir. Noted under "Miscellaneous" in Apr. 8 issue.

★Trenton, N. J.—(Official)—Bids will be received until 2:30 p.m., Apr. 20, by the Board of Chosen Freeholders of Mercer County, Trenton, for improving about three miles of road Section 2, River Rd. John J. Powers is Dir. Noted under "Miscellaneous" in Apr. 8 issue.

★Trenton, N. J.—(Official)—Bids will be received until 2:30 p.m., Apr. 20, by the Board of Chosen Freeholders of Mercer County, Trenton, for the laying of a bituminous macadam highway known as the Trenton-Allentown Turnpike. John J. Powers is Dir. Noted under "Miscellaneous" in Apr. 8 issue.

Beaver Falls, Penn.—A special election will be held May 15 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for street paving.

Harrisburg, Penn.—(Official)—Bids will be received until 10 a.m., Apr. 20, by the State Highway Department for material, machinery, implements and tools for maintenance and repair of State Highways. Joseph W. Hunter is First Deputy State Highway Comr.

★Scottdale, Penn.—(Official)—Bids will be received until 7 p.m., Apr. 16, by F. M. Newcomer, Secy. of the Borough Council, for grading, curbing and paving Pittsburgh, Hickory, Grove and Brooks St.

Wilkinsburg, Penn.—(Official)—Bids will be received until 4 p.m., Apr. 17, by Frease & Sperling, Borough Engr., for improving sections of South Ave., Hay St. and Vincent Way.

✚★Cumberland, Md.—A contract for paving 16 streets has been awarded to LOUIS LAWSON, Norfolk, Va., at $130,364. Noted Mar. 18.

Richmond, Va.—(Official)—Bids will be received until noon, Apr. 19, by G. P. Coleman, State Highway Comr., for constructing 2.33 miles of gravel road from Mechanicsville Turnpike and Creighton Rd. and 0.35 mile between Mechanicsville Turnpike and city limits in Henrico County.

Welch, W. Va.—Bids will be received until May 1 by R. K. Bragonier, Pres., County Court, for the sale of $165,000 in bonds, the proceeds to be used for constructing roads in McDowell County.

✚★Kinston, N. C.—A contract has been awarded to the WEST CONSTRUCTION CO., Chattanooga, Tenn., for making street improvements and sewerage improvements. Noted Mar. 4.

Anderson, S. C.—Bonds for $83,000 have been sold, the proceeds of which will be used for paving.

Anderson, S. C.—At a recent election the question of issuing $750,000 in bonds for constructing roads in Anderson County was defeated. Noted Mar. 4.

Cartersville, Ga.—Plans are being prepared by W. W. Daniels for paving Main St. with vitrified brick or wood block.

Dublin, Ga.—An election will be held June 8 to vote on the question of issuing $10,000 in bonds, the proceeds to be used for improving streets.

Trenton, Ga.—Bonds for $60,000 were sold Apr. 6, the proceeds of which will be used for constructing roads.

Clearwater, Fla.—The Board of Commissioners of Pineallas County contemplates an expenditure of $350,000 for constructing about seven miles of road. The J. B. McCrary Co., Atlanta, Ga., is Engr.-in-Charge.

Green Cove Springs, Fla.—Plans have been prepared by the J. B. McCrary Co., Atlanta, Ga., for the construction of 30 miles of road in Clay County.

Miami, Fla.—An election will be held Apr. 20 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for constructing the Ingraham highway.

Birmingham, Ala.—The Board of Commissioners plans to improve 20th St. from First to Fifth Ave. The estimated cost is $5000. Julian Kendrick is City Engr.

Jonesboro, Tenn.—A bond issue of $425,000 will be submitted May 15 to the citizens of Washington County, the proceeds of which will be used for constructing roads.

Dayton, Ky.—(Official)—Bids will be received until 8 p.m., Apr. 19, by W. C. Martin, City Clk., for improving Brooklyn Ave. from Dayton to Berry Ave. and Dayton Ave. from Eighth to Brooklyn Ave.

Louisa, Ky.—An election will be held May 17 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for constructing roads in Lawrence County.

Tompkinsville, Ky.—An election will be held May 15 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for constructing roads.

Akron, Ohio—(Official)—Bids will be received until 11 a.m., Apr. 26, by the Board of Commissioners of Summit County for improving the Richfield Rd. C. L. Bower is Clk. of the Bd.

Cincinnati, Ohio—The Cincinnati Motor Speedway Co. has been organized to build a $500,000 motor speedway on the outskirts of Cincinnati. E. W. Edwards is Pres.

Cincinnati, Ohio—Bids will be received until May 14, by the Commissioners of Hamilton County for repairing the East Miami River Rd. The estimated cost is $27,134.

Cleveland, Ohio—(Official)—Bids will be received until 10 a.m., Apr. 28, by E. G. Krause, Clk. of Bd. of Comrs. of Cuyahoga County for improving Berea Rd. from West 117th St. to West Madison Ave.

Findlay, Ohio—Bids have been received for paving Cherry St. with (a) brick, (b) westrumite, from C. B. Hall & Son, Findlay, (a) $10,189, (b) $9657; Haskell & Battles, Painesville, (a) $10,631, (b) $9606.

Ironton, Ohio—Bonds for $100,000 have been sold, the proceeds of which will be used for improving and constructing pikes. Noted Mar. 25.

Jeromesville, Ohio—Bids will be received until noon, May 1, by M. L. Hosler, Clk. of the Council, for grading, draining and paving Main St. with brick.

✚Napoleon, Ohio—The Commissioners of Henry and Putnam Counties have awarded the contract for the construction of two miles of water-bound macadam road to GAGHEN, McGEE & STROHL, Custar, at $9598. Noted Mar. 18.

Rockford, Ohio—(Official)—Bids will be received until noon, Apr. 16, by John W. Lloyd, Village Clk., for improving East, First, Second and Franklin St.

Rocky River, Ohio—Bids will be received until noon, May 4, by Frank Mitchell, Clk., for the sale of $9500 in bonds, the proceeds of which will be used for constructing concrete sidewalks on North Ridge Rd.

Toledo, Ohio—Bids will be received until 10 a.m., May 14, by Charles J. Sanzenbacher, Audr. of Lucas County, for grading, draining and macadamizing the Washington Township Rd.

Evansville, Ind.—Bids will be received until Apr. 22 by the Board of Public Works for improving Oak and Cherry St. and Chandler Ave.

Frankfort, Ind.—(Official)—Bids will be received until 2 p.m., May 18, by the Commissioners of Clinton and Howard Counties for constructing a county line road. Edward Spray is Audr. of Clinton County.

Goshen, Ind.—(Official)—Bids will be received until 1 p.m., May 3, by the Commissioners of Elkhart County for constructing a brick and gravel road in Elkhart Township.

✚Greenfield, Ind.—A contract for a gravel road on line dividing Center, Green and Vernon Townships has been awarded to GEORGE W. HOPPES, Anderson, at $7337.

✚Huntington, Ind.—The contract for constructing a gravel road in Rock Creek Township has been awarded to GORDON & SONS, Liberty Center, at $24,425.

Indianapolis, Ind.—Press reports state that the Board of Public Works plans to improve Graceland Ave. at an estimated cost of $23,967.

Richmond, Ind.—(Official)—Bids will be received until 10 a.m., Apr. 22, for constructing 20,250 sq.yd. of brick, concrete, wood, block or asphalt pavement. Fred R. Charles is City Engr.

✚Terre Haute, Ind.—The contract has been awarded to COOPRIDER & COLLINS, Clay City, at $11,297, for constructing gravel roads in Lost Creek and Pierson Townships. Noted Mar. 4.

Vincennes, Ind.—(Official)—Bids will be received until 10 a.m., May 3, by the Board of Public Works for paving First St.

✚Grand Rapids, Mich.—The contract for improving Milton St. from Carlson to Norwood Ave. has been awarded to KLOOTE & SON, at $5829.

✚Chrisman, Ill.—A contract has been awarded to the FOULKES CONTRACTING CO., Terre Haute, Ind., at $27,605, for paving Monroe Ave. from the city limits to Illinois St. and Illinois St. from Monroe Ave. to the city limits.

Elgin, Ill.—Press reports state that the City Commissioners voted to pave North State St. at an estimated cost of $28,000.

✚Galesburg, Ill.—The contract for paving Cedar St. from Fremont to Dayton St. and Sanborn St. from Broad to West St. has been awarded to J. B. McAULEY, at $13,983.

✚Kankakee, Ill.—The contract for paving East Ave. from Court to Chestnut St. has been awarded to FRANK SHIDLER, Kankakee, at $8005.

Paris, Ill.—(Official)—Bids will be received until 2 p.m., Apr. 23, by Harvey Brummett, Comr. of Highways of Edgar Township, Edgar County, for constructing 13,200 lin.ft. of gravel and four concrete culverts on the Cherry Point Rd.

Delavan, Wis.—Bids will be received by the City Clerk until 10 a.m., Apr. 30, for grading and paving various streets with reinforced concrete, vitrified brick, or asphalt macadam, together with combined concrete curb and gutter.

✚Grand Rapids, Wis.—A contract for concrete paving has been awarded by the County Highway Commissioner of Wood County to BOSSERT BROS., Grand Rapids, at $11,491.

✚Marinette, Wis.—(Official)—A contract for constructing 11,000 sq.yd. of concrete pavement has been awarded to MURPHY CONSTRUCTION CO., Manitowoc, at $16,343. Other bids were Corbin Bros., $16,370; Delta Construction Co., $16,520; C. Johnson, $16,549. Noted Mar. 18.

Marshfield, Wis.—Bids will be received until Apr. 20 by the Board of Public Works for paving approximately 24,000 sq.yd.

Milwaukee, Wis.—Bids will be received until 10:30 a.m., Apr. 20, by the Department of Public Works for paving sections of various streets. Fred G. Simmons is Comr. of Pub. Wks.

✚Oshkosh, Wis.—The Board of Public Works has awarded contracts for paving to J. RASMUSSEN & SONS, Ashkosh, Vine, Harrison and Eveline St. and East Lincoln Ave.; LARSON CONSTRUCTION CO., Oshkosh, Algoma St.

✚Red Oak, Iowa—A contract for paving about 33 streets with asphaltic concrete has been awarded to WILLITSON CO., Chicago, Ill.

✚Vinton, Iowa—A contract has been awarded to K. HAHN, Cedar Rapids, for laying 9200 sq.yd. of brick pavement.

Moorhead, Minn.—Bids will be received until 11 a.m., Apr. 27, by A. O. Houghim for supplying corrugated metal pipe to be used on State Roads Nos. 2 and 6.

✚Alliance, Neb.—(Official)—A contract for improving a number of streets has been awarded to J. M. ROBERTS, Omaha, at $5300. Noted Mar. 18.

Lincoln, Neb.—The City Council contemplates an expenditure of $50,000 for park extensions.

✚McIntosh, S. D.—(Official)—The contract for grading the county highway has been awarded to JOHN CARLSON, Lewistown, Mont. Noted Mar. 11.

✚Kansas City, Mo.—Contracts have been awarded for concrete paving as follows: 5495 sq.yd. to A. R. MENSE, $4561; 6608 sq.yd. to J. O'CONNOR & SON, $5717; 5780 sq.yd. to RELIANCE CONSTRUCTION CO., $4855.

Morrillton, Ark.—Press reports state that the City Council plans to pave the principal streets. J. A. Frisby is Mayor.

Russellville, Ark.—The Commissioners of Pope County will build a road from Russellville north to Harrison, Boone County, about 96 miles.

Anderson, Tex.—At the election held Mar. 3, the question of issuing $65,000 in bonds, the proceeds to be used for constructing roads in District No. 5, Precinct No. 1, was defeated.

Houston, Tex.—(Official)—Bids will be received until 10 a.m., Apr. 19, by H. L. Washburn, Audr. of Harris County, for grading the Kuykendall Rd.

Port Lavaca, Tex.—At a recent election the citizens of Road District No. 1, Calhoun County, voted in favor of issuing $60,00 in bonds, the proceeds of which will be used for constructing roads.

+Cushing, Okla.—A contract for laying approximately 35,000 yd. of vertical fiber vitrified brick pavement has been awarded to ELLIOTT & VANCE, Parsons, Kan.

Lapwai, Idaho—Bids will be received until Apr. 20 by the Town Clerk for paving Main St. and cross streets with macadam.

+Bellingham, Wash.—(Official)—The contract for constructing a portion of Highway No. 5 has been awarded to the P. J. McHUGH PAVING & CONSTRUCTION CO., Seattle, Wash., at $68,800. Noted Mar. 25.

Edmonds, Wash.—Plans for grading, graveling and paving one-half mile of streets have been completed by the Coast Engineering Co., Everett, Wash. The work is estimated to cost $37,000. Bids will be called for about Apr. 20.

Ritzville, Wash.—(Official)—Bids were received Apr. 5 by the Board of County Commissioners for constructing Permanent Highway No. 3A as follows: Silke & LaPlant, Colville, $41,126; H. L. Wilson Co., Walla Walla, $41,291; S. S. Schuler, Ritzville, $41,750; Standifer-Clarkson Co., Portland, Ore., $41,000; G. L. Stickler, Spokane, $43,840; A. H. Zane & Co., Hanford, $40,817; Mitchell Bros & Payne, Spokane, $44,211.

Seattle, Wash.—Bids will be received until Apr. 27 by the Commissioners of King County for constructing the Auburn Enumclaw Rd., Division No. 2. The estimated cost is $50,000.

+Seattle, Wash.—The Board of Commissioners of King County has awarded contracts for road construction as follows: Sunset Highway, from Renton to Issaquah, a distance of 10 miles, to HENRY BRICE, at $63,445; grading and graveling 9½ miles of highway from Auburn southeast toward Osceola, to the WASHINGTON PAVING CO., Tacoma, Wash., at $42,194.

+Portland, Ore.—The contract for repaving Russell St. from Cantenbien to Williams Ave. has been awarded to JOHN KEATING, at $8371. Noted Mar. 18.

+Bakersfield, Calif.—The Board of Supervisors of Kern County has awarded contracts for road construction to ROBERT SHERER & CO., at $34,925, for a road from Bakersfield to Mojave and to THOMPSON BROS., at $29,657, for a road from Maricopa to Oal River.

+Coronado, Calif.—JOHN ENGEBRETSEN, San Diego, has been awarded the contract at $41,004, for paving Glorietta Blvd. and Third St.

+Los Banos, Calif.—A contract for paving about 14 blocks in the business district has been awarded to W. H. WORSWICK, Fresno, Calif.

Sacramento, Calif.—Bids will be received until Apr. 26 by the State Highway Commission, 515 Forum Bldg., for constructing state highways as follows: Monterey County, between Salinas and Lagunita, 6.1 miles; Monterey County, Greenfield to a point 2½ miles north of the King City bridge, 7.3 miles; Monterey County, San Ardo, to a point near Bradley, 10.9 miles; Contra Costa County, from Richmond to Pinole, 5.3 miles; Sonoma County, from Willow Brook to southerly boundary, 6.4 miles.

San Bernardino, Calif.—Bids will be received until 11 a.m., Apr. 20, by the Board of Supervisors of San Bernardino County for constructing several sections of the good roads system.

Halifax, N. S.—The City Council contemplates an expenditure of $50,000 for constructing concrete sidewalks. F. W. W. Doane is Engr.

Ottawa, Ont.—Bids will soon be received for paving Bank St. from Echo Drive to Grove St. with asphalt and stone block. The estimated cost is $60,000. F. C. Askwith is Engr.

Edmonton, Alta.—The City Council plans to pave Portage Ave. The estimated cost is $131,000. A. Latornell, Civic Block, Edmonton, is Engr.

INDUSTRIAL WORKS

Waterville, Maine—Bids are being received by the Central Maine Power Co. for the construction of a four-story storage house on Lockwood St.

Malden, Mass.—The Malden Knitting Mills will construct a four-story, 40x150-ft. mill.

+Worcester, Mass.—The J. W. BISHOP CO., 109 Foster St., has been awarded the contract to construct a five-story, 40x60-ft. brick storage warehouse for the Worcester Storage Co. on Pleasant St.

+Narragansett Pier, R. I.—Sinnickson, Savery, Sheetz & Savery has awarded to GEORGE T. BRIGGS the contract for constructing a 2½-story frame structure with a 28x30-ft. wing.

Providence, R. I.—The U. S. Gutta Percha Co., Eddy St., will build a number of additions to its plant. E. B. Whipple is Engr.

Providence, R. I.—Plans are being prepared by William Walker & Son, Arch., for a one-story, 90x250-ft. automobile show building on Broad St. for Walter S. Lederer. The structure will be of glazed terra cotta.

Woonsocket, R. I.—The Nyanza Mills plans to build a one-story, 60x110-ft. brick addition to its dyehouse.

Bridgeport, Conn.—The Bridgeport Projectile Co. has recently been incorporated and will purchase a site for the construction of a large plant for the manufacture of arms and ammunition.

New Britain, Conn.—The Union Mfg. Co. will erect a five-story, 47x160-ft. annex to its plant on Church St.

New Haven, Conn.—The Kolynos Co., 180 Meadow St., will build a four-story, 80x120-ft. factory on Bristol St. Noted Aug. 6, 1914.

Waterbury, Conn.—The Benedict and Burnham branch of the American Brass Co. will replace several of its older structures on South Main St. with modern factory buildings.

+Buffalo, N. Y.—(Official)—THE TURNER CONSTRUCTION CO. has been awarded the contract for the construction of an 11-story, 80x80-ft. structural steel and reinforced-concrete warehouse for W. H. Walker & Co., 39 Franklin St.

+Buffalo, N. Y.—(Official)—THE TURNER CONSTRUCTION CO., Prudential Bldg., Buffalo, has been awarded the contract for a four-story, reinforced-concrete, 80x200-ft. factory for the Buffalo Meter Co., 2900 Main St. Lockwood, Greene & Co., Boston, Mass., is Arch.

Buffalo, N. Y.—The Curtis Aëroplane Co. will erect a one-story factory on Churchill St. to cost $25,000.

+Elba, N. Y.—JOHN LENNON & SON CO., Niagara Falls, N. Y., has received the contract for the erection of 112x260-ft. machine shop, a 75x112-ft. warehouse and a 53x77-ft. power house, all of brick and reinforced-concrete, for the Elba Food Products Co. The estimated cost is $40,000.

+Ilion, N. Y.—JAMES STEWART & CO., 30 Church St., New York, has received the contract for the erection of four structural steel, brick and concrete four-story factories, which will be built for the Remington Arms Co. at a cost of $600,000.

★Iroquois, N. Y.—Bids will be received until noon, Apr. 23, by William Hunt, Pres. Bd. of Mgrs., Thomas Indian School, for the construction of a silo and ice house and an addition to the dairy barn at the institution. Lewis F. Pilcher, Capitol, Albany, is State Arch.

Syracuse, N. Y.—The constructon of a three-story factory is planned by the N. H. Franklin Mfg. Co. on Gifford St., for the manufacture of die castings. The estimated cost is $65,000.

Pyrites, N. Y.—Plans are being prepared for the construction of a two-story, 50x125-ft. reinforced-concrete storehouse for the De Grasse Paper Co., Watertown.

Camden, N. J.—The Collins Carriage Co. will rebuild its plant which was destroyed by fire.

+Camden, N. J.—Joseph Campbell & Co., manufacturer of canned soups, has awarded to the WILLIAM STEELE & SONS CO. the contract for the erection of its five-story, 160x700-ft. reinforced-concrete building at Washington Park. Construction will commence in July. Noted Jan. 7.

Harrison, N. J.—An official of the Crucible Steel Co. of America denies the rumor that the company will build a new factory at that place.

+Hoboken, N. J.—(Official)—THE TURNER CONSTRUCTION CO., 11 Broadway, New York, has been awarded the contract for the construction of a nine-story, reinforced-concrete, 42x68-ft. factory for the American Lead Pencil Co., Willow St. F. M. Small is Arch.

Oil City, Penn.—Day & Zimmerman, Arch., Philadelphia, Penn., is preparing plans for the construction of car barns for the Citizens Traction Co.

+Philadelphia, Penn.—WILLIAM STEELE & SONS CO., 1600 Arch St., was awarded the contract to build a six-story, 31x141-ft. reinforced-concrete and brick warehouse at 919 Arch St. for Asam Bros.

Philadelphia, Penn.—The Powelton Storage Co. will erect a three-story, 50x85-ft. brick warehouse at 38th and Powelton Ave.

Philadelphia, Penn.—A three-story brick and concrete, 124x127-ft. storage warehouse will be built at 651 North 42nd St. for Elizabeth D. Mellville.

Martinsville, Va.—The Lester Lumber Co., Figsboro, will erect a lumber mill at Martinsville, at a cost of $50,000.

Birmingham, Ala.—At an estimated cost of $150,000, the Woodward Iron Co. will build a plant for the utilization of coal in the manufacture of iron.

Knoxville, Tenn.—The Littlefield-Steere Co. will erect a candy factory to cost $50,000.

Ashland, Ky.—The Norton Iron Works will erect a $50,000 factory for the manufacture of woven wire fence.

Akron, Ohio—The B. F. Goodrich Co. has authorized the expenditure of $500,000 for the erection of a six-story, 80x400-ft., reinforced-concrete factory. There will also be three 80x80-ft. wings.

Cincinnati, Ohio—A permit has been granted to the Newport Rolling Mill Co. for the construction of a 180x600-ft. annex to its galvanizing plant. The estimated cost is $40,000.

Cincinnati, Ohio—The Chicago Mill & Lumber Co. contemplates the establishment of a large plant on Carthage Ave. in St. Bernard. The number of buildings, their size and cost are as yet merely matters of speculation.

Cleveland, Ohio—The Forest City Engineering Co., Hippodrome Bldg., will prepare the plans for a six-story warehouse at Lakeside Ave. N. E. and East 22nd St., for the Fisher Bros. Co. Estimated cost, $150,000.

Cleveland, Ohio—Plans are being prepared by S. H. Weis, Arch., 1030 Schofield Bldg., for the construction of a cold storage plant at East Ninth and Berg St. for the Morris & Cornsweet Co. It will cost $90,000.

+Cleveland, Ohio—The Willard Storage Battery Co. will add another unit to the factory under way at 280 East 131st St. The contract has been awarded to G. W. FEAGA & CO. The cost will be $27,000.

+Cleveland, Ohio—JAMES L. STUART, Illuminating Bldg., has been awarded the contract to erect an eight-story warehouse at West 48th St. for the Westinghouse Electric Co.

+Toledo, Ohio—(Official)—The Willys-Overland Co. has awarded a contract to the MACARTHUR CONCRETE PILE & FOUNDATION CO., 11 Pine St., New York, N. Y., for the concrete pile foundations of its new assembly building and power house. Mills, Rhines, Bellman & Nordorc is Arch.

Warren, Ohio—The Warren Tank & Boiler Co., A. R. Hughes, Pres., will extend its plant by building a 180x850-ft. addition.

Evansville, Ind.—The Blount Plow Co. will erect a factory addition at a cost of $200,000.

Madison, Wis.—Bids will soon be received by Gould, Wells & Blackburn Co, for a four-story, 66x200-ft. brick and stone building to replace one destroyed by fire. The plans are nearing completion by Alfred C. Clas, Arch., Colby-Abbot Bldg.

+Milwaukee, Wis. — WALTER W. OEFLEIN has been awarded the contract for the construction of a six-story, reinforced-concrete and brick, 100x150-ft. addition to the plant of the B. F. Johnson Soap Co., Fourth and Fowler St.

+Milwaukee, Wis.—The contract for steel and iron for the new $35,000 tobacco factory for C. B. Leidersdorf, Milwaukee St., has been awarded to the C. HENNECKE CO., 1353 North Pierce St.

Riverton, Wyo.—The Chicago & Northwestern R.R. Co. will build a $75,000 plant for the curing of railroad ties.

+St. Louis, Mo.—JAMES A. GODFREY has been awarded the contract to build a two-story factory at 4400 Union Blvd. for the St. Louis Can & Tube Co., 3115 North Broadway. John H. Knechenmeister is Pres. The estimated cost is $50,000.

St. Louis, Mo.—The Martha Investment Co. has secured a permit to build a two-story, 200x250-ft., factory for the St. Louis Paper Can and Tube Co. at 4400 Union Blvd. Estimated cost, $50,000.

Stuttgart, Ark.—Wilbur & Sowell is behind a project to erect a rice-paper mill to cost $300,000.

Houston, Tex.—The Edward C. Smith Furniture Co. will build a three-story warehouse to replace the one recently destroyed by fire.

Denver, Colo.—The Western Chemical Co. will build three structures; two for the manufacture of acids and the third will serve as a roaster for ore treatment. The estimated cost is $200,000.

Silver City, N. M.—The Calumet Mining Co. will expend $150,000 on the erection of a concentrating and cyanide plant to replace the one recently destroyed by fire.

Pocatello, Idaho—Operations will be commenced at once on a three-story concrete and brick building for the Fales-Houston Packing Co..

Tacoma, Wash.—The Eagle Macaroni Mfg. Co., 27th St. and Pacific Ave., will rebuild its plant which was recently destroyed by fire.

Tekoa, Wash.—J. Y. Waller and Howard Williamson, of the Desmet Balley Lumber Co. plan the erection of a lumber mill and dry kiln.

Bay City, Ore.—The Tillamook Bay Fish Co., recently incorporated, will erect a modern fish cannery.

Roseburg, Ore.—O. T. Larson, Portland, Ore., is interested in the construction of a $25,000 plant for the Roseburg Sand & Gravel Co.

St. Johns, Ore.—The Western Cooperage Co. has completed the first unit of its cooperage plant and will start the second at once. The plant, with machinery and equipment, will cost $150,000. Noted Jan. 14.

Bakersfield, Calif.—C. J. Hurrie & Son, Stockton, Calif., will rect a window-glass factory to cost $35,000.

+Berkeley, Calif.—The El Dorado Oil Works has awarded a contract for the construction of additional oil tanks to C. R. LAMBURTH, Merchants' Exchange Bldg., San Francisco, Calif., to cost $10,500.

Redding, Calif.—The Burns Lumber Co. will rebuild its box factory recently destroyed by fire.

Salida, Calif.—The Dairyman's Associated Condensed Milk Co. will erect a 110x170-ft. plant estimated to cost $75,000. J. B. Monnette is interested.

+San Francisco, Calif.—A box factory will be erected for the San Francisco Box Co. at North Point and Jones St. by ANDREA SCARBORO, at an estimated cost of $40,000.

San Francisco, Calif.—The California Fruit Canners' Association, 120 Market St., will erect a five-story cannery at Stockton and Bay St., at an estimated cost of $500,000.

Hamilton, Ont.—The Grasseli Chemical Co. will build a brick addition to its plant to cost $27,000.

Owen Sound, Ont.—The City Council, C. Gordon, Clk., is having plans prepared for a grain elevator with a capacity of 500,000 bu. J. H. Tromanhauser & Co., Temple Bldg., Toronto, Ont., is Arch.

Tillsonburg, Ont.—Bordens Condensed Milk Co. contemplates the erection of a steel and sandlime brick, cold-storage building. J. Conley is Supt.

Revelstoke, B. C.—M. Entin will erect a laundry to cost $20,000.

Nelson Lagoon, Alaska—A movement has been inaugurated by E. S. McCord, Bellingham, Wash., to erect a salmon-canning plant at an estimated cost of $150,000.

FEDERAL GOVERNMENT WORK

NOTE—A recent low bid was rejected because it was unaccompanied by a certified check. In the futire the office,of the Supervising Architect will be most strict about certified checks.

Repairs to Post Office—Concord, N. H.—Bids will be received until 3 p.m., May 17, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for making extensions and alterations to the post office at Concord. Plans are on file with the Custodian, Concord, and with Oscar Wenderoth.

+Post Office—Greenfield, Mass.—The contract has been awarded to the WESTCHESTER ENGINEERING CO., White Plains, N. Y., at $61,231, for constructing a post office at Greenfield. Bids were opened Mar. 15. Noted Feb. 11 and Mar. 18.

Building Improvements—Newport, R. I. — Bids were received Apr. 10 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C. for (1) work complete, (2) roofing, (3) sheet metal work, (4) painting, (5) heating, (6) lighting, (7) plumbing, (8) per sq.yd. wood flooring, and (9) stairways: W. G. Cornell Co., Southern Bldg., Washington, D. C., (1) $29,-999; John W. Danforth Co., 72 Ellicott St., Buffalo, N. Y., (5) $13,075; Rhode Island Supply & Engineering Co., Providence, R. I., (5) $8690; Charles H. Williston Co., 171 Pleasant St., Fall River, Mass., (2) $3988; Farber Cornice Works, 9 Timothy St., Pawtucket, R. I., (2) $3424, (3) $3365; J. T. Maguire Co., 118 Spring St., Pawtucket, R. I., (2) $3348; New York Roofing Co., 535 East 19th St., New York, N. Y., (2) $3284, (3) $2616; John Gillies, 352 Spring St., Newport, R. I., (2) $3515, (3) $3408; John R. Bowher, 19 Downe St., Boston, Mass., (6) $3170; General Fire Extinguisher Co., 275 West Exchange, Providence, R. I., (5) $9150; John H. Scannivan, 250 Thames St., Newport, R. I., (6) $2997; Ray B. Wilson, Jr., 14 West Broadway, Newport, R. I., (7) $8654; Neptune B. Smyth, Inc., 413 East 34th St., New York, N. Y. (4) $1763; Whitall Electric Co., 42 Main St., Westerly, R. I., (6) $2923; Newport Contracting & Engineering Co., 2700 Washington Ave., Newport News, Va., (1) $32,404, (5 and 7) $17,830; Darling-Slade Construction Co., 52 Bridge St., Newport, R. I., (1) $40,954, (2) $3174, (3) $2150, (4) $3500, (5) $15,623, (6) $5822, (7) $9354, (8) $1.98, (9) $2000; M. N. Cartier Co., 289 Canal St., Providence, R. I., (2) $2924, (3) $2610; G. M. Parks Co., 970 Main St., Fitchburg, Mass., (5) $11,237; Ehret Roofing & Mfg. Co., 407 Lombard St., Baltimore, Md., (2) $2900, (3) $3100; W. A. Murtfield Co., 161 Devonshire St., Boston, Mass., (2) $3138, (3) $3386; Noland Clifford Co., Inc., Newport News, Va., (5 and 7) $28,940; Improved Plastic Slate Roofing Co., 73 Fremont St., Boston, Mass., (2) $3600, (3) $3843; P. J. Murphy & Co., 161 Spring St., Newport, R. I., (7) $8319 and Architects' Roofing Co., 45 Battery March St., Boston, Mass., (2) $3100. Noted Mar. 25.

Electric Traveling Cranes—Newport, R. I.—Bids were received Apr. 10 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for furnishing one 2½ ton, 3-motor electric traveling crane and one movable bridge or platform on wheels in the assembly shop, and a similar crane in the Torpedo Storehouse at the Newport Naval Torpedo Station as follows: Cleveland Crane & Engineering Co., Wicklif, Ohio, $5020; Whiting Foundry & Equipment Co., Harvey, Ill., $4825, alternate bid, $4725; and Manning, Maxwell & Moore, 118 West 40th St., New York, N. Y., $3950. Noted Mar. 25.

+★Dredging—Providence, R. I.—The contract has been awarded to P. SANFORD ROSS, Jersey City, N. J., at $91,833, for dredging in Providence Harbor. Noted Mar. 4 and Apr. 8.

Residence—Cape Vincent, N. Y.—Bids will be received until 2 p.m., Apr. 29, by Commissioner of Fisheries, Dept. of Commerce, Washington, D. C., for constructing a superintendent's residence at Cape Vincent.

Building—Philadelphia, Penn.—Bids will be received until 2 p.m., May 1, by the Commanding Officer, Frankford Arsenal, for one 2-story brick and reinforced-concrete building and a tin shop at the Frankford Arsenal.

★Sewer Work—Washington, D. C.—Bids will be received until 2 p.m., Apr. 21, by the Commissioners of the District of Columbia, Room 509, District Bldg., for constructing 1000 ft. of 3-ft. sewers. Plans are on file with the Chief Clerk, Engineer Dept., Room 427, District Bldg.

Mess House—Edenton, N. C.—Bids will be received until 2 p.m., Apr. 20, by the Commissioner of Fisheries, Dept. of Commerce, Washington, D. C., for constructing a mess house at the Edenton fisheries station.

Storehouse—Ft. Screven, Ga.—Bids will be received until 11 a.m., May 5, by the Constructing Quartermaster for constructing a storehouse.

Post Office—Live Oak, Fla.—Bids were received Apr. 6 by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post office at Live Oak, (a) using limestone for all exterior stonework, except where granite is required, (b) using sandstone for all exterior stonework, except where granite is required, as follows: F. W. Long & Co., Jacksonville, Fla., (a) $73,543; George A. Clayton, Atlanta, Ga., (a) $51,000, (b) $51,350; H. S. Richards & Co., Bainbridge, Ga., (a) $52,347, (b) $53,000; George W. Stiles Construction Co., Chicago, Ill., (a) $53,467; Potter's Lumber Co., East Liverpool, Ohio, (a) $48,400, (b) $48,900; Howard & Wread, Barto, Fla., (a) $48,447, (b) $48,697; Westchester Engineering Co., White Plains, N. Y., (a) $47,900, (b) $50,000; George A. Shaul, Seneca, Kan., (a) $53,692; C. H. Turner Co., Pensacola, Fla., (a) $60,980, (b) $61,180; Algernon Blair, Montgomery, Ala., (a) $49,440, (b) $50,00; Rogers & Kaiser, Chicago, Ill., (a) $53,936, (b) $54,771; J. L. Crouse, Greensboro, N. C., (a) $51,072, (b) $52,500; S. L. Fulghum, Pensacola, Fla., (a) $54,187, (b) $54,387; R. P. Farnsworth & Co., Owensoro, Ky., (a) $52,900, (b) $53,200; Barnes Bros., Logansport, Ind., (a) $59,000; J. F. Jenkins, Ocala, Fla., (a) $54,450, (b) $56,000; John G. Unkefer & Co., Minerva, Ohio, (a) $53,480, (b) $54,450; Colonial Construction & Supply Co., Charlottesville, Va., (a) $53,-535, (b) $54,035; Frank Weakley, Canton, Ohio, (a) $54,963, (b) $55,500 and William H. Fissell & Co., New York, (a) $46,700, (b) $47,700. Noted Feb. 25.

★Post Office—Laurel, Miss.—Bids will be received until 3 p.m., May 18, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for constructing complete a post office at Laurel.

+Earthwork—New Orleans, La.—Contracts have been awarded to GIBSON, HAMILTON & CO., New Orleans, for Lower Tensas Levee District, Hard Times Levee, Districts Nos. 1 and 2 at $36,129 and to DAMERON WHITE CO., Hibernia Bank Bldg., New Orleans, for Atchafalaya Levee District, Lecour Levee, Lot No. 2, at $12,008. Noted Mar. 18 and Apr. 8.

Dredging—Jeanerette, La.—Bids will be received until 11 a.m., May 3, by Maj. Edward H. Schults, 325 Custom House, New Orleans, for dredging in Bayou Teche, between Keystone Lock and Jeanerette.

★Steel Dump Scows—Louisville, Ky.—Bids will be received until noon, May 13, by Maj. J. C. Oakes, U. S. Engineer Office, for two steel dump scows.

★Dredging—Detroit, Mich.—Bids will be received until Apr. 28 by Lieut.-Col. Mason M. Patrick, District Engr., Federal Bldg., Detroit, for dredging ship channel in Lake St. Clair, Mich.

★**Riprap**—Harbor Beach, Mich.—Bids will be received until noon, May 11, by Lieut.-Col. Mason M. Patrick, District Engr., Federal Bldg., Detroit, for furnishing and placing stone riprap along lake face on main breakwater, Harbor Beach.

★**Cribs and Superstructures**—Harbor Beach, Mich.—Bids will be received until noon, May 12, by Lieut.-Col. Mason M. Patrick, District Engr., Federal Bldg., Detroit, for constructing and placing two timber cribs and replacing with concrete timber superstructures on breakwater, Harbor Beach.

★**Lock Improvement**—Sault Ste. Marie, Mich.—Bids will be received until noon, May 15, by Lieut.-Col. by Mason M. Patrick, District Engr., Federal Bldg., Detroit, Mich., for constructing concrete masonry for the fourth lock at Sault Ste. Marie.

✚**Brick Mess Hall**—Pierre, S. D.—The contract has been awarded to J. H. STEVENS, Chamberlain, N. D., at $16,842, for constructing a brick mess hall at the Pierre Indian School. Noted Mar. 11 and Apr. 8.

Excavation and Concrete Work—Browning, Mont. — Bids will be received until 2 p.m., Apr. 30, by the United States Reclamation Service, Great Falls, Mont., for constructing structures on the St. Mary storage unit, Milk River project. The work includes excavation, concrete work and paving.

Canal Work—Saco, Mont.—Bids will be received until 2 p.m., May 12, by A. P. Davis, Ch. Engr., United States Reclamation Service, Malta, Mont., for 95,000 cu.yd. of canal excavation near Saco.

★**Revetment**—Atherton, Mo.—Bids will be received until noon, May 10, by Lieut. Col. Herbert Deakyne, U. S. Engineer Office, Kansas City, Mo., for 9000 ft. of standard revetment on the Missouri River near Atherton.

★**Dike**—Cement City, Mo.—(Courtney post office)—Bids will be received until noon, May 10, by Lieut. Col. Herbert Deakyne, U. S. Engineer Office, Kansas City, Mo., for constructing 4200 ft. of standard three-row timber dike on the Missouri River near Cement City.

Post Office, Court House and Custom House—Corpus Christi, Tex.—(extension of date from Apr. 19)—Bids will be received until 3 p.m., May 11, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for constructing a post office, court house and custom house at Corpus Christi. Noted Mar. 11.

Canal Work—Payson, Utah—Bids were received Apr. 8 by the United States Reclamation Service, Provo, for canal work near Payson as follows: Green Construction Co., Tooele, $14,300 (low bidder); Hedenberg, Olson & Gee, Provo, $16,201; S. Hutchings, Springville, $17,356 and the Wasatch Grading Co., Salt Lake City, $29,574. Noted 18.

Addition to Dormitory—Tuba, Ariz.—Bids were received by the Commissioner of Indian Affairs, Dept. of Interior, Washington, D. C., for constructing an addition to the stone dormitory for girls at the Western Navajo School as follows: W. B. Lovell, Minneapolis, Minn., $27,500; T. C. Hurst, Phœnix, $33,935; Hetzel-Winget Co., Grant Bldg., Los Angeles, Calif., $25,250, and Horton-Smith, Montezuma, Iowa, $30,989. Noted Mar. 11.

✚**Levee Work**—Yuma, Ariz.—The contract has been awarded to E. F. SANGUINETTI, at $80,000, by the Department of the Interior for placing 80,000 cu.yd. of rock on the levee below Andrade.

✚**Barges**—St. Johns, Ore.—The contract for building two government barges for service on the Coquille River has been awarded to the ST. JOHNS SHIPBUILDING CO., St. Johns, at $7745.

Pipe—Los Angeles, Calif.—Bids will be received until 2 p.m., May 4, by the United States Reclamation Service, Los Angeles, for riveted steel pipe and for constructing the Strawberry Valley project.

Bridge—Needles, Calif.—(Official)—See item under Bridges.

Water and Sewer Systems—San Diego, Calif.—Bids will be received until 10 a.m., May 15, by H. R. Stanford, Bureau of Yards and Docks, Navy Dept., Washington, D. C., for constructing water and sewer systems at the Naval Radio station, San Diego.

★**Steel Structure**—Balboa, Panama—Bids will be received until 10:30 a.m., May 3, by Maj. F. C. Boggs, Gen. Pur. Officer of the Panama Canal, for furnishing or furnishing and erecting structural steel for shed on pier No. 18, Balboa Terminals.

MISCELLANEOUS

✚**Dam**—Peterboro, N. H.—The White Mills has awarded a contract to the FISKE-CARTER CONSTRUCTION CO., Worcester, Mass., for the construction of a reinforced-concrete dam, 260 ft. long and 26 ft. high.

Concrete Bulkheads—Boston, Mass.—It is reported that the Metropolitan Park Commission is considering the construction of concrete bulkheads, one at Revere Beach, to cost $30,000 and one at Nantasket Beach, to cost $6000.

Motor Fire Apparatus—Brookline, Mass.—The Town Council has appropriated $16,000 for the purchase of additional motor fire apparatus.

Piers and Bridge—Northampton, Mass. — (Official) — Bids will be received until noon, May 4, by the Commissioners of Hampshire County for reconstructing two piers and for repairing the superstructure of the bridge across the Connecticut River between Northampton and Hadley.

Fire Apparatus—Pittsfield, Mass.—(Official)—Bids will be received by Frederick H. Purches, Clk., Fire Dept. Comn. until noon, Apr. 22, for furnishing a combination chemical and hose wagon, a service truck, tractor, and hose wagon.

Wharf, Etc.—Providence, R. I.—The State Harbor Commission has granted permission to the Huasteca Petroleum Co., Inc., Los Angeles, Calif., to build a wharf in front of its property. The proposed wharf will be 630 ft. long and 27 ft. wide. This company also plans to build six oil tanks.

Guard Railing—Hartford, Conn.—Bids will be received by Charles J. Bennett, State Highway Comr., for constructing wood guard railing as follows: Middletown, 1100 lin.ft., Hartford-Saybrook turnpike; Haddam, 1122 lin.ft., Hartford-Saybrook turnpike; New Britain, 926 lin.ft., Stanley St.; Bristol, 500 lin.ft., Park St.; Bolton, 4000 lin.ft., Andover Rd.; Danbury, 2232 lin.ft., Sugar Hollow Rd.; Southbury, 1200 lin.ft. Woodbury Newtown Rd.

Interior Furnishings—Hartford, Conn.—Bids were received by the Board of Contract and Supply on Mar. 30 for the furnishing of equipment for the new municipal building. These bids were referred to the Municipal Building Commission for recommendation. The bidders on the two main propositions are as follows: (a) furniture, (b) steel: Tiffany Studios, New York, (a) $62,300, (b) $28,595; P. J. Carlin Construction Co., New York, (a) $60,030, (b) $29,500; Wollaeger Mfg. Co., Milwaukee, Wis., (a) $66,000; Nachtagall Mfg. Co., Grand Rapids, Mich., (a) $59,990; Cobb-Macey-Dohme, New York, (a) $62,440; J. B. Greenhut Co., New York, (a) $69,584; Bloomingdale Bros., New York, (a) $61,009; (b) $31,500; O. H. Bauer, New York, (a) $60,789; Irving & Casson-A. H. Davenport Co., Boston, Mass., (a) $65,460; Doten-Dunton Desk Co., Cambridge, Mass., (a) $62,237; W. & J. Sloane, New York, (a) $59,450; Paine Furniture Co., Boston, Mass., (a) $61,695; General Fire Proofing Co., New York, (b) $28,595; Canton Art Metal Co., New York, (b) $30,306; O. M. Edwards Co., Hartford, Conn., (b) $29,500; Van Dorn Iron Works, New York, (b) $27,737; Library Bureau, Hartford, Conn., (b) $31,589; Art Metal Construction Co., Jamestown, N. Y., (b) $31,000; Fireproof Furniture & Construction Co., (b) $37,280; Crown Metal Construction Co., Hartford, Conn., (b) $27,500; Watson Mfg. Co., (b) $34,000; Merritt & Co., Camden, N. J., (b) $38,673. Joseph Buths is Secy., Board of Contract and Supply.

✚**Concrete Pier**—Greenport, N. Y.—According to press reports, Wells & Jennings have awarded a contract to HARRY TUTHILL, Greenport, to build a concrete pier into Greenport Harbor.

Pumping Engines—New York, N. Y.—(Borough of Manhattan)—The following are the bids received by the Fire Department on Apr. 12 for furnishing and delivering six self propelled gasoline pumping engines: Waterous Engine Co., $46,640; American La France Fire Engine Co., $44,664; Aherns Fox Fire Engine Co., Cincinnati, Ohio, $43,338; Seagreave Co., $50,400.

Subway—New York, N. Y.—(Borough of Manhattan)—(Official)—The following are the official totals of the bids received by the Public Service Commission for the construction of Section No. 4 of Routes Nos. 4 and 36, that part of the Broadway subway lying in Seventh Ave. between 51st and 59th St.: Litchfield Construction Co., 23 Flatbush Ave. (Borough of Brooklyn), $1,937,509; Rodgers & Hagerty, Inc., $2,089,457; T. A. Gillespie Co., $2,159,064; Degnon Contracting Co., $2,165,890; Mason & Hanger, $2,217,955; J. F. Cogan Co., $2,221,561; Oscar Daniels Co., $2,277,269; Godwin Construction Co., $2,298,244; Inter-Continental Construction Corporation, $2,318,778; Norton & Gorman Contracting Co., $2,343,687; Smith, Hauser & MacIsaac, Inc., $2,442,079; E. E. Smith Contracting Co., $2,447,695; Underpinning & Foundation Co., $2,593,821. Noted Apr. 1.

✚**Motor Trucks**—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for furnishing nine 1½-ton motor trucks complete, to the Department of Water Supply, Gas and Electricity, has been awarded to the AUTO CAR SALES CO., at $15,810. Noted Mar. 18 and Apr. 1.

★✚**Seawall Jetty and Bulkhead**—Bradley Beach, N. J.—The contract for constructing the seawall, jetty and bulkhead has been awarded to the LOGAN CONSTRUCTION CO., 11 Broadway, New York, N. Y. Noted Mar. 18.

Meadow Development—Newark, N. J.—The State Legislature has been requested by the Board of Works to grant $500,000, in addition to the $2,000,000 already appropriated, for improving the meadows. The plans provide for a bridge over the Central R.R. at Port Ave., a freight transfer shed, sewers, street paving, and a channel 400 lin.ft. Morris R. Sherrard is Ch. Engr.

Bulkhead—Stone Harbor, N. J.—Press reports state the Borough Council is considering an issue of $160,000 in bonds for the purpose of constructing a bulkhead from 83rd to 111th St. along the ocean front. Jetties are to be constructed at nine streets.

✚**Platform Elevators**—Philadelphia, Penn.—(Official)—The contract for installing platform elevators for the Southwark Piers has been awarded by the Department of Wharves, Docks and Ferries to the ALBRO-CLEM ELEVATOR CO., Seventh and Glenwood Ave., Philadelphia, Penn., at $13,500. John Meigs is Assist. Dir., Dept. of Wharves, Docks and Ferries.

Police and Fire Signalling Apparatus—Scranton, Penn.—Bids will be received by F. K. Derby, Dir. of Pub. Safety, until 11 a.m., Apr. 17, for installing fire alarm and police signalling apparatus in the Central City fire limits.

Excavation—Shennandoah, Penn.—(Official)—Bids will be received by the East Bear Ridge Colliery Co., until noon, Apr. 20, for removing about 300,000 cu.yd. of dirt and rock on the bed of the company's mine. W. J. James, Mahonoy Plane, Penn., is Secy.

★**Concrete Wall**—Wilkes-Barre, Penn.—(Official)—Bids will be received by Frederick H. Gates, City Clk., until noon, Apr. 30, for building a concrete retaining wall along Solomon's Creek between Franklin and Vulcan St.

Retaining Wall—Wilkes-Barre, Penn.—Bids will be received by Frederick H. Gates, City Clk., until Apr. 16 for constructing a stone retaining wall on the easterly side of Park Ave., from Metcalf to Dana St. and concrete steps through the park, from Park Ave. to Hancock St. Noted Mar. 18.

Park Improvements—Hagerstown, Md.—A bond issue of $65,000 has been voted by the city for park improvements. J. B. Ferguson is City Engr.

✚**Drainage**—Goldsboro, N. C.—According to press reports the contract for constructing drainage canals in Nahunta and Slough Swamps, Drainage District No. 2, has been awarded by the Commissioners of Wayne County to THOMPSON & MOSLEY, Greensboro, at about $90,000. This work will reclaim about 6000 acres of land.

Drainage—Newbern, N. C.—Bids will be received until May 1, for drainage improvements, which provide for drainage canals, sewers, inlets, tide gates, levees, etc. The work requires about 37,000 cu.yd. of excavation. R. R. Eagle, 409 Elks Temple, Newbern, is Engr.

Bids will be opened the same time and place for the purchase of $20,000 drainage district bonds.

+Wharves—Jacksonville, Fla.—The contract for the construction of timber marginal wharves has been awarded by the Board of Port Commissioners to HILLYER & SPERRING, Jacksonville, at $12,310. Noted Mar. 18 and Oct. 1.

Dredging—Winter Haven, Fla.—Bids will be received until Apr. 24, by the Board of Directors, Twenty Lakes Boat Course Club, for dredging Twenty Lakes Boat Course Canal. The Atlantic Engineering Co., Savannah, Ga., is the Engr. L. Burns is Chn. Board of Directors.

Drainage—Darrow, La.—Bids will be received by B. J. Vega, Secy. Bd. of Comrs. of the Bayou Conway Drainage Dist. of the Parish of Ascensin, until noon, May 4, for the excavating of drainage canals in that district, approximating 1,000,000 cu.yd.

Ditch—Bucyrus, Ohio—Bids will be received by L. P. Michaelis, County Surveyor, for constructing Mud Run Ditch.

Creek Improvements—Canton, Ohio—It is reported that the County Engineer has completed surveys for improving Sugar Creek.

+★Elevators—Cincinnati, Ohio—The contract for furnishing 12 elevators for the Hamilton County courthouse, has been awarded to the STANDARD PLUNGER ELEVATOR Co., 243 Stafford St., Worcester, Mass., at $103,885.

Creek Improvements—Alexandria, Ind.—A petition has been filed requesting that Pipe Creek be improved by increasing the depth of the channel four ft. between Gaston and Alexandria. The estimated cost is $100,000.

Pumping Station—Fountaintown, Ind.—The Tidewater Oil Co., Shelbyville, Ind., will erect a pumping station in connection with its pipe line, to cost about $500,000.

Wharf—New Albany, Ind.—Plans are being prepared by Samuel T. Mann., City Engr., for the construction of a river wharf.

Dredging—Corunna, Mich.—It is reported that the Webb Creek and Hooley drains, near Durand, will be dredged this summer. The total length of these drains is about 12 miles. Alonzo Griffin is County Drain Comr.

Fire Stations—Chicago, Ill.—(Official)—The city has voted a bond issue of $663,000 for the purpose of purchasing sites and constructing new fire stations also for improving the present stations.

Bathing Beaches and Playgrounds—Chicago, Ill.—A bond issue for $600,000 has been voted by the citizens for improving the bathing beaches and laying out playgrounds. John Ericson is City Engr.

Natatorium—Milwaukee, Wis.—A bond issue of $60,000 for the construction of a public natatorium in the 23d Ward failed to carry at the special election on Apr. 6.

Levee and Retaining Wall—Muscatine, Iowa—The City Council has appropriated $12,000 for levee improvements. C. H. Young is City Engr.

+Ditch—Le Sueur, Minn.—The contract for constructing County Ditch No. 40 has been awarded to JAMES McKILLIP, Waterloo, Iowa, at $17,324. Noted Mar. 25.

Ditches—Slayton, Minn.—Press reports state that several county and judiciary ditches are to be constructed in Murray County this year. The Badger ditch, near Slayton, will require an expenditure of about $250,000. P. L. Minder is County Engr.

Reclamation Work—Riverton, Wyo.—The Farmers' Co. recently secured water rights for what is known as LeClair Ditch and plants to construct a canal system to reclaim 20,000 acres of land.

Improvements to Exposition Grounds—Kansas City, Mo.—The Mid-Continent Exposition Club is having plans prepared for a club house, exposition buildings, two mile automobile speed way of wood block, one mile dirt race track, and grounds for golf, polo, baseball and tennis. The total cost is estimated at $1,000,000. Root & Siemans, 1202 Scarritt Bldg., Kansas City, are the Archs. W. A. Rule, 4079 Republic Bldg., is Secy. of the Club.

Creek Improvements—Kansas City, Mo.—An expenditure of $3,995,000 has been recommended by the City Council for improving Bush Creek. About $100,000 is for improving the sewage condition. W. M. Barclay is City Engr.

Drainage—Osceola, Ark.—Bids will be received by the Board of Commissioners, Grassy Lake and Tyronza Drainage District, No. 9, Mississippi County, until Apr. 14, for the following: Contract No. 29-A, 7300 cu.yd. of ditch excavation; No. 29-B, installation of 62 lin.ft. 12-in. sewer, 50 lin.ft. 18-in. and 198 lin.ft. 24-in., with 20 cu.yd. concrete bulkheads; No. 31, 21,000 cu.yd. levee embankment, about eight miles northeast of Marked Tree; No. 33, constructing two wooden bridges containing about 600 ft. pile trestle, across Ditch No. 1, about four miles northeast of Marked Tree. The Morgan Engineering Co., Memphis, Tenn., is Engr. S. E. Simonson is Chn., Board of Commissioners.

Park Improvements—Longmont, Colo.—The St. Vrain Valley Fair Association and the City Park Board have completed plans for improving Longmont Driving Park.

Dam—Costilla, N. M.—Bids will be received by Franklin E. Brooks, Pres., Costilla Estates Development Co., 1221 First National Bank, Denver, Colo., until noon, Apr. 24, for the construction of the Costilla dam, in Taos County. The work involves the excavation of 300,000 cu.yd. and provides for 3600 cu.yd. of reinforced-concrete work, etc. Specifications may be obtained of J. C. Ulrich, Engr., 210 West Second Ave., Denver, Colo.

Improving Grounds—Salt Lake City, Utah—The City Commissioners and State Capitol Commission contemplate improving the State Capitol grounds. The work will include the removal of about 500,000 cu.yd. of earth.

Dam—Salt Lake City, Utah—Bids will be received by the Board of Commissioners until 10 a.m., Apr. 21, for the construction of a dam at Twin Lakes, Big Cottonwood Cañon. Karl A. Scheid is City Recdr.

Ditches, Drainage—Everett, Wash.—It is reported that plans have been completed by the Coast Engineering Co., Everett, for the construction of about 9¾ miles of open ditches in Drainage Dist. No. 4, which involves about 35,000 cu.yd. of excavation. The estimated cost is $50,000. This work includes the drainage of about 56,000 acres between Monroe and Snohomish.

+Dikes—South Bend, Wash.—The contract for constructing a system of dikes in Diking Dist. No. 2 has been awarded to the COWLITZ CO., Portland, Ore., at $61,500. Other bids were the Willapa Construction Co., Raymond, $63,500, and Hans Pederson Construction Co., Seattle, $63,000. H. A. Bibbs is Engr. of the District. Noted Mar. 18.

Irrigation—Medford, Ore.—It is reported that Wellborn Beeson, Tolent, Ore., is interested in an irrigation system, which will furnish water for about 1000 acres, at a cost of $16,000. By constructing a five-mile ditch the water can be carried through Phoenix Mill Ditch from Bear Creek.

Flume—Placerville, Calif.—The Western States Gas & Electric Co. will expend $15,000 in enlarging the capacity of the American River flume. H. H. Bennett is Local Mgr.

River and Harbor Improvements—Ottawa, Ont.—Appropriations for river and harbor improvements in Ontario include the following: Bayfield, repairs to piers, $3000; Elk Lake, wharf improvements and repairs, $800; Hamilton, harbor improvements, $250,000; Kingston, harbor improvements, $128,000; Kingston Royal Military College, repairs to wharves, $2000; Port Elgin, repair to breakwater, $10,500; Providence Bay, repairing and strengthening wharf, $3200.

Fire Engines, Tractors and Equipment—Ottawa, Ont.—The City Council will apply to the Legislative Assembly for permission to borrow $50,000 for the purpose of purchasing fire engines, tractors and equipment for the fire department.

Breakwater—Port Elgin, Ont.—The Government Department of Public Works will erect a breakwater to cost $10,500. R. C. Desroschers is Secy. of the Government Bd.

Subway—Toronto, Ont.—Plans have been approved by the Dominion Railway Board for the construction of a subway under the Grand Trunk R.R. tracks at the proposed extension of Wilton Ave., to connect with Dickens St. The Grand Trunk System is to pay $10,000 and the city the balance, with the exception of $5000 granted by the Government Crossing fund.

Reclamation Work—Vancouver, B. C.—It is reported that the Dominion Government has granted to the Vancouver Harbor Commission property for the reclamation of tide flats in the center of False Creek. The reclaimed area will be inclosed by a seawall and bulkhead.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Boston, Mass.—Bids will be received until Apr. 20 by J. P. Lomasney, Chn. of Schoolhouse Com., City Hall Annex, for the construction of a two-story school. Funk & Wilcox, 120 Boylston St., is Arch. Estimated cost, $80,000.

Boston, Mass.—Bids will soon be received by R. D. Lynch, Supt. of Public Bldgs., City Hall, for the construction of a 11-story addition to the City Hall. The estimated cost is $225,000. H. H. Atwood, 61 Alban St., Dorchester Dist., is Arch.

Cambridge, Mass.—Bids will soon be received by Edward T. P. Graham, Arch., 20 Beacon St., Boston, for the construction of a group of buildings for the Cambridge City Hospital. Estimated cost, $100,000. Charles S. Cahill, M. D., Cambridgeport (Boston post office) is Chn. of Trustees. Noted Apr. 1.

Dedham, Mass.—The citizens voted Apr. 4 to appropriate $130,000 for the construction of a high school on East Auburn and Mt. Vernon St.

+Lawrence, Mass.—The contract for the construction of a theater for the Toorney & Demara Amusement Co. has been awarded to WHITNEY & CO., Boston. Estimated cost, $200,000.

Lawrence, Mass.—Plans are being revised by T. E. Sheehan, Arch., Tremont St., Boston, for the construction of a two-story, 68x90-ft. parochial school for Holy Trinity Church. Estimated cost, $40,000.

Springfield, Mass.—Plans are being prepared by E. C. & G. C. Gardner, Arch., 33 Lyman St., for the construction of a three-story, 70x100-ft. building for the Springfield Post, G. A. R. Estimated cost, $50,000.

+Worcester, Mass.—The contract for the construction of a three-story, 88x126-ft. gymnasium for the Worcester Polytechnic Institute has been awarded to the CENTRAL BUILDING CO., 58 Front St., and not to the Edward F. Miner Building Co., 25 Foster St., as reported in the issue of Mar. 18. Estimated cost, $100,000.

Worcester, Mass.—Bids will soon be received for the construction of a three-story addition to North High School. The estimated cost is $210,000. John T. Simpson, 1224 Essex Bldg., Newark, N. J., is Arch. and George C. Halcott is Supt. of Pub. Bldgs. Noted Oct. 29 and Jan. 21.

+Providence, R. I.—(Official)—HORTON & HEMENWAY, 86 Weybosset St., has been awarded the contract for the construction of a school on Laurel Hill Ave. Clarke & Howe, 1304 Turks Head Bldg., is Arch. Noted Jan. 7, Mar. 11 and 25.

New Haven, Conn.—Bids will be received after May 1 by L. W. Robinson, Arch., 42 Church St., for the construction of a building for the New Haven Hospital. Estimated cost, $500,000. Noted Dec. 3 and 17 and Jan. 14.

Windsor, Conn.—Bids are being received by Murphy & Dana, Arch., 331 Madison Ave., for the construction of a three-story school for Loomis Institute. Estimated cost, $200,000.

Albany, N. Y.—Plans are being prepared by R. D. Macpherson, Assoc. Arch., Askay Bldg., for the construction of a parochial school for St. Vincent de Paul's Church, Madison Ave. and Partridge St. Estimated cost, $50,000. Noted Jan. 14.

Buffalo, N. Y.—Plans are being prepared by Howard L. Beck, City Arch., for the construction of Public School No. 31 on Emslie and William St. Estimated cost, $400,000.

Holtsville, N. Y.—Nathan Myers, Arch., 7 Nelson Pl., Newark, N. J., has prepared plans for the construction of a two-story tuberculosis hospital. Estimated cost, $50,000. Dwight L. Corwin, Riverhead, is Clk of Bd. of Supervisors. Noted Jan. 14.

Kings Park, N. Y.—(Official)—Bids received Mar. 18 by the State Hospital Commission for the construction of an addition to the Kings Park State Hospital have been rejected as the lowest bid exceeded the amount appropriated. Lewis F. Pilcher, Capitol, Albany, is State Arch. Noted Mar. 11 and 25.

Mt. Vernon, N. Y.—McKenzie, Voorhees & Gmelin, Arch., 1123 Broadway, New York, is preparing plans for the construction of a three-story, 50x135-ft. telephone exchange building for the New York Telephone Co. Estimated cost, $50,000.

New York, N. Y.—(Borough of Brooklyn)—R. Thomas Short, Arch., 5 West 29th St., New York, is preparing plans for the construction of a motion picture theater at Flatbush Ave. and Canarsie Lane for A. H. Schwartz, 239 East 25th St., New York. Estimated cost, $150,000.

New York, N. Y.—(Borough of Manhattan)—Henry D. Downs plans to construct a two-story theater at 135th St. near Lenox Ave. Estimated cost, $45,000. Jardine, Hill & Murdock, 3 West 29th St., is Arch.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by McKim, Mead & White, Arch., 101 Park Ave., for the construction of a three-story, 175x262-ft. University Hall for Columbia University, 116th St. and Amsterdam Ave. Estimated cost, $100,000.

✚New York, N. Y.—(Borough of Queens)—(Official)—The contract for the construction of Public School No. 93 on Forest Ave. between Woodbine and Madison St. has been awarded to the T. A. CLARKE CO., 122 Livingston St., Brooklyn, at $267,600. Noted Mar. 25, and under Borough of Manhattan, Feb. 4.

✚Rochester, N. Y.—The contract for the construction of a commercial building on Clinton Ave. for the Howe & Rogers Co., has been awarded to the FERRO CONCRETE CONSTRUCTION CO. Estimated cost, $175,000. Crandall & Strobel, is Arch.

Utica, N. Y.—Bids will be received about May 1 for the construction of a two-story, 128x200-ft. school with a one-story, 40x154-ft. annex. Estimated cost, $140,000. E. B. Odell is Chn. of Bldg. Com. and Gouge & Ames, 70 Genesee St., is Arch. Noted Mar. 18.

Atlantic City, N. J.—The Board of Education plans to construct a two-story school addition, to cost about $150,000. Stout & Riebenach is Arch.

Englewood, N. J.—The Board of Education plans to construct a two-story high school at Englewood. Estimated cost, $150,000. Graham Sumner is Pres. of Bd.

Harrison, N. J.—John T. Rowland, Jr., Arch., 98 Sipp Ave., Jersey City, and Joseph W. Baker, Arch., 11 North Fourth St., have prepared plans for the construction of a three-story parochial school for the Church of the Holy Cross. Estimated cost, $90,000. Noted Mar. 18.

Millville, N. J.—The two lowest bids received for the construction of a two-story, 87x160-ft. school were submitted by Berry, Goodwin & Co., Philadelphia, Penn., at $69,750, and James H. Wells, Heed Bldg., Philadelphia, Penn., at $71,320. Arnold H. Moss, 136 South Fourth St., Philadelphia, Penn. is Arch. Noted June 4, July 30, Sept. 10 and Apr. 1.

Newark, N. J.—Bids will be received until Apr. 20 by the Board of Trustees of the Essex County Parental Home for the construction of a $50,000 school. John H. Ely and Wilson C. Ely, are Archs. Noted Mar. 25.

Perth Amboy, N. J.—The Board of School Estimate is considering an appropriation of $140,000 for the construction of additions to the High School and Public School No. 9, for the Board of Education.

Trenton, N. J.—Bids will be received until Apr. 29 by the Board of Education for the construction of a school to be known as the Junior High School No. 1. William A. Poland, 9 South Stockton St., is Business Mgr. Noted Sept. 24.

West New York, N. J.—Plans are being prepared by Gregory B. Webb and Karl F. J. Seifert, Assoc. Arch., 104 West 42d St., New York, N. Y., for the construction of a three-story, 100x200-ft. public school. Estimated cost, $185,000. E. J. Stilz, 687 Bergenline Ave., is Pres. of Bd. of Education.

Hanover, Penn.—A bond issue of $85,000 has been voted by the citizens of Hanover. The proceeds will be used for the construction of a school. Noted Apr. 8.

Harrisburg, Penn.—J. M. McCollum, Consult. Arch., Berger Bldg., Pittsburgh, has prepared plans for the construction of a State Inebriate Asylum for Cumberland County. Estimated cost, $300,000. F. J. Hall, 1601 North Front St., is Secy. Pub. Charities Com.

Herman, Penn.—Plans are being prepared by John T. Comes and John E. Kauzar, Arch., Renshaw Bldg., Pittsburgh, for the construction of a three-story building for St. Fidelis College. Estimated cost, $45,000.

Lansford, Penn.—An appropriation of $175,000 has been made by the School Board for the construction of a high school. Clyde S. Adams, 1233 Arch St., Philadelphia, is Arch. Noted Feb. 4.

New Castle, Penn.—See item under "Light, Heat and Power."

New Wilmington, Penn.—The Trustees of Westminster College plan to construct a $75,000 gymnasium. R. M. Russell is Pres.

✚Philadelphia, Penn.—HENRY E. BATON, Tenth and Sansom St., at $116,797, has been awarded the contract for the construction of additions to the prison at 11th and Reed St. Philip H. Johnson, Land Title Bldg., is Arch.

Philadelphia, Penn.—Work will soon be started on the construction of a 13-story apartment house at Walnut and Moravian St. Estimated cost, $750,000. Frederick W. Webber, Morris Bldg. is Arch. Noted Mar. 11.

SEWAGE DISPOSAL WORKS, YORK, PENN.

✚Bids were received by the City Council Apr. 2 for the construction of a sewage disposal works from: (A) BENNETT & RANDALL, Greensburg, Penn. (awarded contract); (B) George C. Souder, Lancaster, Penn.; (C) Cantrell Construction Co., Philadelphia; (D) Pitt Construction Co., Pittsburgh; (E) C. R. Simpson, New York, N. Y.; (F) T. L. Eyre, Philadelphia; (G) D. C. Sarber, New York, N. Y.; (H) Suburban Engineering Co., New York, N. Y.; (I) F. B. Bassman & Co., Baltimore, Md.; (J) A. B. Kraft, York; (K) F. J. Boas, Philadelphia; (L) Slack & Slack Co., Baltimore, Md.: (M) Kelley-McFeeley Co., Camden, N. J.; (N) Heyman & Goodman Co., Jersey City, N. J.; (O) Engineer's Estimate. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
Protective works and royalties, lump sum	1000.00	1600.00	1620.00	5000.00	2095.00	2000.00	1800.00	1800.00	4300.00	1800.00	1560.00	1128.00	1960.00	3900.00	4500.00
9500 cu.yd. earth excavation and disposal	0.45	0.66	0.60	0.90	0.52	0.96	0.64	0.52	0.82	0.30	0.80	1.50	0.61	1.50	0.60
6000 cu.yd. rolling embankment	0.18	0.12	0.25	0.15	0.06	0.08	0.15	0.25	0.15	0.15	0.20	0.50	0.14	0.50	0.20
5000 cu.yd. rock excavation	1.50	1.40	2.10	1.40	2.00	1.92	1.85	2.00	1.90	3.50	2.85	3.00	2.85	3.00	2.00
500 cu.yd. rip rap	1.25	0.52	0.75	1.25	1.50	0.84	0.50	2.25	0.95	2.25	1.50	1.00	0.77	0.50	0.20
1900 cu.yd. concrete	9.00	7.25	8.00	9.00	8.60	7.20	9.75	8.50	8.90	8.50	9.80	7.50	9.64	15.00	11.00
150,000 lb. reinforcing steel	0.03	0.028	0.03	0.02½	0.04	0.03½	0.036	0.02¾	0.03	0.04	0.04	0.03	0.03¾	0.04½	0.03½
38 tons cast iron B & S pipe	33.00	35.00	42.00	40.00	50.00	40.00	31.00	50.00	48.00	60.00	50.00	40.00	45.00	70.00	30.00
18 tons cast iron B & S specials	65.00	77.00	76.00	80.00	75.00	86.00	80.00	80.00	96.00	65.00	80.00	80.00	86.00	100.00	65.00
3 tons cast iron flanged pipe and specials	60.00	100.00	57.00	100.00	110.00	127.00	100.00	90.00	150.00	185.00	80.00	80.00	99.00	130.00	100.00
Baffles including supports, lump sum	1400.00	3000.00	1100.00	3500.00	5182.00	2564.00	3200.00	5750.00	2275.00	3526.00	2539.00	1385.00	3700.00	4150.00	4040.00
20,000 lb. miscellaneous c.i., w.i. and steel	0.05	0.07	0.06	0.05	0.06	0.06	0.06	0.06	0.10½	0.04¼	0.04	0.05½	0.10	0.13	0.06
750 lin.ft. railings	1.00	0.80	0.59	0.50	0.70	1.44	1.00	1.20	1.10	0.80	0.75	1.25	1.60	0.90	0.80
Swing gates and stands and slide gates, lump sum	1350.00	1200.00	1240.00	1100.00	1200.00	936.00	1350.00	1600.00	1530.00	1260.00	1055.00	1200.00	1380.00	1600.00	1000.00
3 each, 4-in. gate valves in place	8.00	11.00	8.85	12.00	9.00	10.00	8.00	13.00	12.00	9.00	8.00	7.75	10.50	10.00	10.00
1 each, 6-in. gate valves in place	15.00	16.00	14.35	16.00	16.00	17.00	14.90	18.00	18.00	15.00	12.00	11.00	15.60	20.00	15.00
14 each, 8-in. gate valves in place	20.00	16.00	21.00	22.00	20.00	26.00	20.00	21.50	23.00	25.00	17.00	16.25	21.00	25.00	20.00
3 each, hydrants	25.00	31.00	29.00	27.00	28.00	37.00	27.00	30.00	30.00	25.00	25.80	40.00	28.80	25.00	30.00
Sluice gates and tide gates lump sum	1240.00	1380.00	1320.00	1200.00	1423.00	972.00	1400.00	1530.00	1465.00	1347.00	1245.00	490.00	1566.00	1740.00	1600.00
Water jet equipment for settling tanks, lump sum	340.00	530.00	506.00	600.00	125.00	594.00	500.00	600.00	700.00	550.00	600.00	175.00	725.00	810.00	1000.00
1 M ft. b.m. lumber	50.00	120.00	55.00	75.00	100.00	84.00	100.00	100.00	65.00	30.00	80.00	35.00	75.00	100.00	100.00
600 cu.yd. crushed stone on sludge beds	1.25	1.15	1.35	1.00	1.00	1.50	2.00	1.50	1.50	12.10	2.00	2.00	2.60	2.00	1.50
500 sq.yd. macadam	0.50	0.33	0.75	0.40	0.50	0.84	1.00	1.00	0.45	0.45	0.50	0.90	0.52	0.40	0.50
500 lin.ft. 6-in. vitrified pipe	0.25	0.22	0.18	0.20	0.22	0.18	0.20	0.24	0.23	0.20	0.25	0.13	0.35	0.30	0.30
200 lin.ft. 8-in. vitrified pipe	0.30	0.25	0.24	0.25	0.26	0.30	0.26	0.30	0.27	0.25	0.30	0.20	0.45	0.30	0.40
300 lin.ft. 12-in. vitrified pipe	0.45	0.46	0.40	0.40	0.38	0.58	0.44	0.45	0.38	0.35	0.50	0.35	0.81	0.50	0.60
Venturi meter, lump sum	1125.00	1320.00	1173.00	1200.00	1350.00	1410.00	1300.00	1300.00	1450.00	1100.00	1090.00	1200.00	1295.00	1470.00	1200.00
Chlorinating apparatus, lump sum	2100.00	2560.00	2312.00	2300.00	2490.00	2500.00	2520.00	2500.00	2365.00	2200.00	2100.00	2550.00	2515.00	2000.00	1000.00
Pumping station superstructure, lump sum	4800.00	4870.00	4790.00	4200.00	4500.00	6695.00	5500.00	6000.00	5000.00	5000.00	4540.00	5250.00	6200.00	7500.00	5000.00
Extended totals	$54,553	$55,740	$58,533	$63,246	$63,693	$64,200	$65,326	$66,893	$68,026	$69,000	$70,307	$72,392	$73,387	$101,38	$68,975

Pittsburgh, Penn.—E. B. Lee, Arch., has prepared plans for the construction of additions and alterations to the Pittsburgh Hospital at Frankstown Ave. and Washington Blvd. The work consists of a seven-story, 50x100-ft. administration building, a five-story, 40x75-ft. chapel, and alterations to the present buildings. Estimated cost, $125,000.

+Pittsburgh, Penn.—The contract for the construction of the School of Applied Design at the Carnegie Institute of Technology, Shenley Pk., has been awarded to A. S. WILSON CO., Third Ave. Estimated cost, $300,000. Noted Mar. 11.

Pittsburgh, Penn.—Bids will be received about May 1 by C. L. Wooldridge, Supt. of Bldgs., Bd. of Education, Fulton Bldg., for the construction of the South Hills High School at Ruth and Secane St., Mt. Washington. Estimated cost, $265,000. Noted Jan. 7.

+Pottsville, Penn.—The contract for the construction of a one-story building for the Pennsylvania National Bank has been awarded to METZGER & FISHER, Denckla Bldg., Philadelphia. Estimated cost, $50,000. Noted Mar. 25.

Towanda, Penn.—(Official)—Bids will be received until 8 p.m., Apr. 27, by W. M. Matchett, Secy. Bd. of Education for the construction of a high school. Pierce & Bickford, Elmira, N. Y., is Arch. Noted Dec. 24.

+Warren, Penn.—(Correction)—(Official)—The contract for the construction of a library has been awarded to the HENRY SHENK CO., Erie, and not to the George A. Fuller Co. as reported in the issue of Apr. 8.

+Washington, Penn.—The contract for the construction of a Masonic Temple on West Wheeling St. has been awarded to JACOB U. BUMGARNER. Estimated cost, $50,000.

Baltimore, Md.—Plans are being prepared by Joseph Evans Sperry, Arch., 409 Calvert Bldg., for the construction of a Y. W. C. A. building. Estimated cost, $200,000. Ada P. Janney, Park Ave. and Franklin St., is Secy.

Petersburg, Va.—The Petersburg Investment Co., Mechanics' Bldg., contemplates the construction of a seven-story hotel. Estimated cost, $135,000. M. C. Jackson is Pres. and R. A. Munden is Assoc. Arch.

Parkersburg, W. Va.—The city contemplates the construction of a two-story hospital. Estimated cost, $75,000. Frank Good is City Clk.

Parkersburg, W. Va.—Bids will soon be received by George D. Heaton, Clk. of Bd. of Education, for the construction of a two-story, 190x250-ft. high school. Estimated cost, $225,000. Frank L. Packard, 1212 Hayden Bldg., Columbus, Ohio, is Arch.

Knoxville, Tenn.—Bids will be received until Apr. 22 by Miller, Fullenwider & Dowling, Arch., 6 North Michigan Ave., Chicago, Ill., and by Alfred B. Baumann, Assoc. Arch., Knoxville, for the construction of a two-story building for the Lawson-McGhee Estate. Estimated cost, $65,000. Noted Apr. 17, 1913, May 14, 1914 and Apr. 1, 1915.

Memphis, Tenn.—The Methodists of Tennessee, Arkansas and Mississippi plan to construct a hospital on Lamar Ave. Estimated cost, $180,000.

Nashville, Tenn.—(Official)—The date for receiving bids for the construction of a laboratory building for the Vanderbilt University has been extended from Apr. 13 to 2 p.m., Apr. 20. Samuel Hannaford & Sons, Arch., Hulbert Blk., Cincinnati, Ohio, will receive the bids. Noted Dec. 17 and 31, Mar. 25 and Apr. 8.

Lexington, Ky.—The Chesapeake & Ohio Ry. plans to construct terminals at Lexington to cost about $100,000. Construction work will be done by the company's own forces. F. I. Cabell, Richmond, Va., is Ch. Engr.

Mt. Sterling, Ky.—Bids will be received about May 1 by Henry Clay McKee for the construction of a five-story, 70x120-ft. hotel. Estimated cost, $85,000. Noted May 21, Aug. 6 and 27 and Nov. 12.

Canton, Ohio—The Board of Education contemplates the construction of a two-story school. Estimated cost, $60,000. W. C. Lane, Central High School, is Clk.

Canton, Ohio—Plans are being prepared by Edmund Herrmann, Arch., Central Savings Bank Bldg., for the construction of a four-story, 50x53-ft. building for the Young Men's Club. Estimated cost, $50,000.

Cincinnati, Ohio—Joseph G. Steinkamp & Bro., Arch., has prepared plans for the construction of a $200,000 dormitory and faculty building for St. Xavier's College. The Trustees of the college also contemplate the construction of a $50,000 gymnasium. William C. Culkins, Oscar J. Dreyer and Walter S. Schmidt are members of Bldg. Com.

+Cleveland, Ohio—The contract for the construction of a commercial and theater building at Denison Ave. and West 25th St. for W. G. Marshall, of the Marshall Drug Co., has been awarded to the UHL-JASTER CO., 1900 Euclid Ave. Estimated cost, $65,000. Noted Mar. 25.

Cleveland, Ohio—Bids will be received until noon, May 10, by the Clerk of the Board of Education, Rockwell Ave. and East Sixth St., for the construction and alteration work at the Dunham, Sibley and St. Clair Schools. Frank G. Hogan is Dir. of Schools.

Cleveland, Ohio—Plans have been prepared by George B. Post & Sons, Arch., 1111 Schofield Bldg., for the construction of a theater and commercial building on Euclid Ave., near East 12th St., for E. E. Mandelbaum. Noted Mar. 4.

Cleveland, Ohio—Preliminary plans are being prepared by George B. Post & Sons, Arch., 101 Park Ave., New York, N. Y., for the construction of a hotel and motion picture theater for the Stillman Amusement Co., 1951 East 57th St. Estimated cost, $700,000. Benedict Crowell is Pres.

+Findlay, Ohio—The contract for the construction of a building for the B. P. O. E., has been awarded to J. J. BOLINGER, Toledo, at $56,167. Noted Mar. 11.

Findlay, Ohio—An election will be held Apr. 27 for the purpose of issuing $100,000, in bonds, the proceeds to be used to reconstruct the county infirmary buildings.

Lakewood, Ohio—The Board of Education contemplates the construction of a three-story high school. Estimated cost, $250,000. The citizens will vote on a bond issue in November. P. T. Harrold is Clk. Bd. of Education.

Massillon, Ohio—Bids are being received by Guy Tilden & Son, Arch., 34 Schaefer Bldg., Canton, for the construction of a two-story, 66x150-ft. theater and store building for John McLain, 929 Cleveland Ave. S. W., Canton. Estimated cost, $60,000.

Newburg, Ohio—(Cleveland post office)—Plans are being prepared by William J. Carter, Engr., Rockefeller Bldg., Cleveland, for the construction of a building on Miles Park Ave., for the Newburg Masonic Temple Co. Estimated cost, $50,000.

Niles, Ohio—Plans have been prepared by McKim, Mead & White, Arch., 101 Park Ave., New York, N. Y., for the construction of a building for the National McKinley Birthplace Memorial Association. Estimated cost, $500,000. John C. Milburn, New York, N. Y., and Joseph G. Butler, Youngstown, are interested.

Toledo, Ohio—Preliminary plans are being prepared by Edwin M. Gee, Arch., Board of Education Bldg., for the construction of a three-story grade school. Estimated cost, $175,000. George L. McKesson is Dir. of Schools. Noted Mar. 18.

Youngstown, Ohio—Bids will be received until noon, Apr. 27, by W. Ashbaugh, Dir. of Schools, 20 Wood St., for the construction of a two-story school. Estimated cost, $80,000. C. F. Owsley, Mahoning Bank Bldg., is Arch.

Youngstown, Ohio—Bids will be received until noon, Apr. 27, by W. Ashbaugh, Dir. of Schools, 20 Wood St., for the construction of a two-story, 90x250-ft. school. Estimated cost, $130,000. Stanley & Scheible, 1301 Wick Bldg., in Arch.

Jasper, Ind.—Plans are being prepared by V. P. Collins and Frank E. Durlauf, Assoc. Arch., 624 Paul Jones Bldg., Louisville, Ky., for the construction of a parochial school for St. Joseph's Church. Estimated cost, $60,000.

Chicago, Ill.—(Official)—The citizens voted on Apr. 6 in favor of issuing $4,000,000 in bonds for municipal construction work, the proceeds to be used as follows: $500,000 for a hospital for contagious cases of disease; $250,000 for a farm colony and shelter; $1,199,000 for buildings for the Police Department; $60,000 for a dormitory at the city school and farm for delinquent boys.

+Moline, Ill.—The contract for the construction of a three-story hospital for the Augustana Swedish Lutheran Hospital, 1014 Fifth Ave., has been awarded to the HORST CONSTRUCTION CO., Horst Bldg., Rock Island. Estimated cost, $60,000.

Rock Island, Ill.—Joseph Hopp, 179 West Washington St., Chicago, plans to construct a two-story motion picture theater at Rock Island. Estimated cost, $50,000.

Kenosha, Wis.—The city has voted $100,000 in bonds, the proceeds to be used for the construction of new school.

Racine, Wis.—The lowest bid received for the construction of a $90,000 school at West Racine was submitted by Nelson & Co., Racine. Noted Oct. 29, Jan. 14 and Feb. 4.

Superior, Wis.—Plans have been prepared by John O. Bach, Arch., for the construction of a building for the Superior Catholic Orphanage. Estimated cost, $100,000.

Cedar Rapids, Iowa—The Western Grocery Co. plans to construct an office building. Estimated cost, $75,000.

Ft. Madison, Iowa—An election will soon be held to vote on the question of issuing $98,000 in bonds for the construction of a high school. R. M. Markgraf, Arch., 413 Ridge Bldg., Kansas City, Mo., has prepared plans.

+Duluth, Minn.—(Official)—JACOBSON BROS., Columbia Bldg., at $115,414, has been awarded the contract for the construction of the Lincoln High School. F. G. German, 410 Exchange Bldg., is Arch. Noted Dec. 31 and Mar. 18.

+Minneapolis, Minn.—J. E. PILGRIM has been awarded the contracts for the construction of the following grade schools: Thomas Lowry School, at $116,000; Robert Fulton School, at $88,000; Clara Barton School, at $87,000. Noted Dec. 25, 1913, Nov. 5 and 19, 1914.

+Marysville, Kan.—(Official)—The contract for the construction of a school has been awarded to W. J. ASSENMACHER CO., Lincoln, Neb., at $41,212. N. P. Nielson, Topeka, is Arch. Noted Mar. 18 and Apr. 1.

Hastings, Neb.—The citizens will hold an election Apr. 20 to vote on the question of issuing $130,000 in bonds. The proceeds will be used for the construction and remodeling of schools in Hastings. C. M. Barr is Secy. Bd. of Education.

+Omaha, Neb.—The contract for the construction of the Hotel Edwards for the Independent Realty Co., 315 Karbach Bldg., has been awarded to ALEX BECK, 204 State Bank Bldg. Estimated cost, $100,000. Noted Apr. 1.

Omaha, Neb.—Graham & Burnham, Arch., Chicago, Ill., is preparing plans for the construction of an eight-story building for the First National Bank.

+Kansas City, Mo.—The FOGEL CONSTRUCTION CO. has been awarded the contract at about $100,000, for constructing the Wesley Hospital. Keene & Simpson is Arch.

Kirksville, Mo.—The Commercial Club contemplates the construction of a hotel. Estimated cost, $75,000. W. I. Pool is interested.

+Galveston, Tex.—The contract for the construction of additions and improvements to the Ball High School, has been awarded to J. W. ZEMPTER, at $53,266. A. J. Bellis, is Arch.

Okmulgee, Okla.—Smith, Rea & Lovitt, Arch., 602 Finance Bldg., Kansas City, Mo., is preparing plans for the construction of a $100,000 high school. Judge Swan is Pres. Bd. of Education.

Denver, Colo.—Robert Willison, Arch., is preparing plans for the construction of a theater on Curtis St., for the Strand Theater Co. Estimated cost, $175,000.

+Greeley, Colo.—The contract for the construction of a three-story courthouse has been awarded to SEERIE & VARNUM, Denver, at $138,575. Noted Jan. 21.

Ogden, Utah—Ogden City and Weber County will construct a building on 25th St. between Washington and Hudson Ave., to be used as offices by the city and county. Estimated cost, between $150,000 and $200,000.

North Yakima, Wash.—N. A. Henderson plans to construct an apartment house on Naches Ave. Estimated cost, $100,000.

Seattle, Wash.—Work will be started about May 1 on the the construction of a 110x120-ft. motion picture theater at Fifth and Pike St., for C. D. Stimpson. Estimated cost, $350,000. Noted Mar. 25.

Spokane, Wash.—The Mohawk Bldg. was recently damaged by fire with a loss of $200,000. The four upper floors will be rebuilt.

Walla Walla, Wash.—**Bids will be received until 10 a.m., May 5, by the County Commissioners of Walla Walla County for the construction of a three-story, 81x139-ft. courthouse.** Estimated cost, $150,000. C. F. Dement is County Audr. Noted Jan. 7 and 28, and Mar. 11.

Portland, Ore.—The Council has decided to construct a public auditorium on Second and Clay St. Estimated cost, $550,000. J. H. Freelander, New York, N. Y., is Arch.

Salem, Ore.—Plans are being prepared for the construction of an apartment house for Charles McNary and George Rodgers. The estimated cost is $50,000.

Berkeley, Calif.—Bids will be received until 10 a.m., Apr. 23, by W. J. Seaborn, City Clk., for the construction of a school at Oregon and McGee St. Noted Mar. 4.

Huntington Beach, Calif.—Plans are being prepared by John C. Smith, Arch., 325 Hellman Bldg., Los Angeles, for the construction of a one-story, 110x274-ft. school. Estimated cost, $40,000. Noted Mar. 11.

Long Beach, Calif.—An election will be held May 10 to vote on issuing $50,000 in bonds, the proceeds to be used for the construction of a general hospital.

Los Angeles, Calif.—(Official)—Bids will be received until Apr. 22 by the Board of Education for the construction of the 14th St. School. Estimated cost, $105,000. C. H. Russell, 1114 Story Bldg., is Arch. Noted Mar. 18.

✚Petaluma, Calif.—The School Board has awarded the contract for the construction of a school to WARD & GOODWIN, San Francisco, at $66,487. Noted Nov. 19.

Sacramento, Calif.—Carl Werner, Arch., San Francisco, is preparing plans for the construction of a four-story lodge building for the Masonic Order. Estimated cost, $100,000.

✚San Francisco, Calif.—The Board of Public Works has awarded a contract for the ornamental iron and bronze work for the City Hall to the RUDGAR MERLE CO., at $93,000. Noted Oct. 1 and Nov. 12.

Stockton, Calif.—Contracts will soon be awarded by the School Board for the construction of a two-story school on the Lower Sacramento Rd. Estimated cost, $60,000.

Calgary, Alta.—Bids are being received by the Department of Public Works, Ottawa, Ont., for the construction of armories. Estimated cost, $350,000. R. C. Desrochers is Secy. of Bd.

COLUMBIA HIGHWAY, MITCHELL POINT SECTION

Hood River County, Oregon

✚Bids were received Mar. 17 by the Oregon State Highway Commission, Henry L. Bowlby, Engr., for the construction of the Mitchell Point section of the Pacific Highway in Hood River County, from: (A) STANDIFER-CLARKSON CO., Portland (awarded contract); (B) Giebish & Joplin, Portland; (C) Porter & Conley, Inc., and E. Wren, Portland; (D) A. Guthrie & Co., Inc., Portland; (E) Carlson, Chindahl & Co., Spokane, Wash.; (F) Elliott Contracting Co., Portland; (G) Jeffrey & Bufton, Portland; (H) Robert L. Ringer, Portland; (I) Clarence Hoard, Victoria, B. C.; (J) Grant Smith & Co., Spokane; (K) Copenhagen Bros., Portland; (L) Taylor & Robbins, Portland; (M) Transfer & Livery Co., Inc., Hood River, Ore.; (N) Cowlitz Bridge Co., Portland; (O) Ryan & Beer, Portland. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Embankment haul to 300 ft., per cu.yd.	$0.24	$0.31	$0.32	$0.20	$0.25	$0.28	$0.33	$0.82	$0.30	$0.00	$0.30	$0.30	$0.30	$0.30	$0.26
Embankment haul 300 to 1000 ft., per cu.yd.	0.27½	0.45	0.36	0.23	0.30	0.35	0.40	0.90	0.30	.....	0.31	0.44	0.33	0.40	0.30
Earth excavation haul to 300 ft., per cu.yd.	0.24	0.29	0.32	0.20	0.25	0.28	0.30	0.32	0.30	0.24	0.30	0.30	0.30	0.30	0.26
Earth excavation haul 300 to 1000 ft., per cu.yd.	0.27½	0.34	0.36	0.23	0.30	0.35	0.36	0.40	0.30	0.28	0.32	0.44	0.33	0.30	0.30
Hard pan haul to 1000 ft., per cu.yd.	0.45	0.45	0.40	0.35	0.45	0.40	0.45	0.53	0.60	.....	0.35	0.45	0.50	0.40	0.35
1500 cu.yd. loose rock haul to 1000 ft.	0.47	0.49	0.40	0.45	0.55	0.50	0.50	0.55	0.60	0.50	0.40	0.55	0.48	0.50	0.35
8000 cu.yd. shell rock haul to 1000 ft.	0.30	0.44	0.40	0.60	0.40	0.40	0.50	0.50	0.40	0.42	0.35	0.50	0.45	0.50	0.35
12,000 cu.yd. hard rock haul to 3000 ft.	0.77½	0.99	0.90	0.82	1.00	0.89	1.20	0.88	1.00	1.15	0.75	1.00	0.84	0.80	0.74
Hard rock haul 300 to 1000 ft., per cu.yd.	0.81	1.10	0.90	0.85	1.00	0.95	1.30	0.95	1.00	1.20	0.80	1.10	0.87	0.80	0.78
Rip-rap, loose haul to 1000 ft., per cu.yd.	0.75	0.65	1.00	1.50	1.25	1.50	1.00	1.10	2.00	.....	.....	1.00	1.00	0.80	1.25
Rip-rap, hand placed haul to 1000 ft.	1.50	1.37	2.00	2.50	2.00	2.75	1.50	1.50	3.00	.....	.....	1.75	1.75	6.00	2.50
20,000 cu.yd. overhaul on above for each 100 ft.	0.01	0.02	0.02	0.01½	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.03	0.01¼	0.02	0.02¼
420 lin.ft. tunnel, complete	33.00	49.50	42.00	35.00	35.00	40.00	46.00	40.00	50.00	39.00	38.00	55.00	39.90	45.00	38.00
45 lin.ft. tunnel windows	30.00	52.25	45.00	35.00	35.00	33.00	46.00	40.00	40.00	45.00	37.00	50.00	45.00	40.00	43.00
Wrought iron and spikes, per lb.	0.08	0.06½	0.06	0.05	0.05	0.07	0.07	0.07	0.10	0.06	0.06	0.07	0.06	0.05	0.05
Cast iron, per lb.	0.07	0.04½	0.10	0.05	0.05	0.07	0.07	0.05	0.10	0.06	.....	0.07	0.05	0.05	0.05
44 M b.m. creosoted timber and plank	47.50	33.00	50.00	45.00	48.00	45.00	60.00	44.00	30.00	49.00	44.00	50.00	58.00	45.00	47.00
4-in. tile drains in place, per lin.ft.	0.15	0.09	0.20	0.20	0.06	0.10	0.20	0.12	0.40	.....	0.20	0.25	0.15	0.20	0.25
50 lin.ft. 12-in. corrugated iron pipe	2.00	1.10	1.00	1.05	1.05	1.25	1.50	1.00	3.00	1.50	1.15	1.20	1.50	0.80	1.30
50 lin.ft. 18-in. corrugated iron pipe	2.50	1.48	1.50	1.45	1.35	1.50	2.50	1.45	3.50	2.50	1.75	1.80	1.75	1.50	1.70
50 lin.ft. 24-in. corrugated iron pipe	3.00	1.95	2.25	2.00	2.75	2.00	3.00	2.00	4.00	2.80	2.25	2.50	2.25	2.50	2.20
50 lin.ft. 12-in. concrete pipe in place	1.50	0.75	1.40	0.75	0.65	1.50	1.00	0.90	2.00	1.65	1.25	0.80	1.00	1.00	1.50
50 lin.ft. 18-in. concrete pipe in place	2.00	1.40	2.15	1.25	1.00	1.75	1.25	1.75	3.00	2.05	2.00	1.40	1.35	2.00	2.00
50 lin.ft. 24-in. concrete pipe in place	2.50	2.40	2.25	1.95	1.60	2.25	2.50	2.25	4.00	2.70	2.50	2.50	2.00	3.00	2.50
6-in. vitrified tile in place, per lin.ft.	0.35	0.30	0.45	0.33	0.20	0.50	0.40	0.30	0.50	.....	0.35	0.50	0.35	0.50	0.35
8-in. vitrified tile in place, per lin.ft.	0.50	0 42	0.60	0.41	0.25	0.75	0.60	0.50	0.75	.....	0.50	0.60	0.45	0.80	0.45
12-in. vitrified tile in place, per lin.ft.	1.05	0.75	0.75	0.65	0.40	1.50	1.00	0.80	1.00	.....	0.65	0.80	0.65	1.20	1.00
18-in. vitrified tile in place, per lin.ft.	1.50	1.40	1.40	1.10	0.85	1.75	1.75	1.70	1.50	.....	1.25	1.40	1.25	2.00	1.50
24-in. vitrified tile in place, per lin.ft.	2.00	2.25	2.10	1.75	1.75	2.25	2.50	2.20	2.00	.....	2.00	2.50	2.00	3.00	2.50
30 sq.yd. rubble masonry (dry), 1 to 6 ft. high	2.25	1.90	2.50	1.50	3.00	5.00	2.50	4.00	3.00	4.00	1.40	2.75	1.65	7.00	2.00
30 sq.yd. rubble masonry (dry), 6 to 12 ft. high	2.75	2.40	3.00	3.00	3.00	9.60	3.00	4.00	4.00	4.00	2.00	3.00	2.25	12.00	2.75
20 sq.yd. rubble masonry (dry), 12 to 18 ft. high	3.25	3.30	4.00	4.00	3.00	16.60	3.50	4.00	5.00	4.00	3.00	3.50	3.75	20.00	3.50
20 sq.yd. rubble masonry (dry), 18 to 24 ft. high	3.75	3.75	5.00	5.50	3.00	23.40	4.00	5.00	6.00	4.00	5.00	4.00	5.00	30.00	4.25
Rubble masonry (cement mortar), per cu.yd.	10.00	4.25	5.00	6.00	8.00	8.00	10.00	7.00	9.00	.....	.....	8.00	6.00	20.00	5.50
275 cu.yd. concrete, Class "A"	15.00	24.04	15.00	22.40	16.50	16.00	20.00	19.80	20.00	12.00	14.00	18.50	14.50	9.00	26.00
Concrete, Class "B," per cu.yd.	.....	23.50	15.00	20.00	.....	.....	21.00	19.80	18.00	.....	.....	18.00	14.00	8.00	25.00
Concrete, Class "C," per cu.yd.	.....	22.50	12.00	15.00	.....	.....	20.00	19.80	16.00	.....	.....	17.00	13.00	8.00	24.00
480 cwt. reinforcing steel in place	3.50	4.40	4.00	3.50	3.75	5.00	6.00	4.20	7.00	5.00	5.00	5.00	5.00	2.50	4.00
380 lin.ft. railing on viaduct	1.50	2.20	1.50	1.00	1.40	2.00	2.50	1.25	2.00	8.00	1.00	1.50	1.00	2.00	1.75
3 acres light clearing	90.00	44.00	40.00	100.00	40.00	50.00	150.00	100.00	100.00	35.00	100.00	70.00	50.00	75.00	50.00
60 sq.rods grubbing	2.00	0.83	1.00	2.00	2.00	1.50	1.50	1.50	3.00	1.00	1.50	1.50	1.00	5.00	2.00
Extended totals	$40,343	$54,428	$47,463	$45,048	$45,077	$47,728	$57,252	$48,884	$54,083	$50,840	$42,722	$57,856	$46,473	$46,908	$45,927

Contracts to Be Let

Bids received until May 4, 1915.

Bridge Repairs

Northampton, Mass.

Sealed bids for reconstructing two piers and also for repairing the superstructure of the bridge across the Connecticut River between Northampton and Hadley, Mass., will be received by the Hampshire County Commissioners at their office, Hampshire County Court House, Northampton, Mass., until twelve o'clock M., on May 4, 1915, and at that time and place will be publicly opened and read.

No bid will be received unless accompanied by a properly certified check for five hundred ($500.00) dollars, payable to the order of "Treasurer of Hampshire County." Each check will be returned to the bidder unless forfeited, as hereinafter provided. All such deposits, except that of the successful bidders, will be returned to the persons making the same within ten days after the contract is awarded.

The contract must be signed and the bond furnished within six days (Sunday excepted) after the date of the notification by the Commission of the acceptance of the proposal and the readiness of the contract for signature, and in case of the failure of the bidder after such notification to execute the contract and furnish the bond within such time, the proposal will be considered abandoned, and the certified check accompanying the proposal shall be forfeited to the County.

Plans can be seen at the office of the Commission, Northampton, Mass., or at the office of the Engineers, 79 Milk Street, Boston, Mass.

The Commission reserves the right to reject any and all bids and reserves the right to award the contract as it deems for the best interest of Hampshire County.

FRANK A. BROOKS, Chairman,
FRANK M. SIBLEY,
CLARENCE E. HODGKINS,
Hampshire County Commissioners
J. R. WORCESTER & CO., Engineers,
79 Milk Street, Boston, Mass.

⁂

Bids received until Apr. 26, 1915.

Bituminous Material

Albany, N. Y.

State of New York—Office of the State Commission of Highways, Albany, N. Y.—Pursuant to provisions of Chapter 30, Laws of 1909 as amended by Chapter 646, Laws of 1911, and Chapter 80, Laws of 1913, sealed proposals will be received by the undersigned at the office of the State Commission of Highways, 55 Lancaster Street, Albany, N. Y., at 1 o'clock P.M. on Monday, April 26, 1915, for furnishing and delivering bituminous materials "A" and "T" in the different counties comprising Divisions Nos. 1, 2, 3, 4, 5, 6, 7, 8 and 9. Tables and specifications showing the approximate quantities may be seen and obtained at the office of the Commission in Albany, N. Y. The special attention of bidders is called to the fact that separate proposals will be received for each Division for furnishing and delivering bituminous materials "A" and "T" as designated in detail by divisions on tables prepared for that purpose.

Each proposal must be accompanied by a draft or certified check issued by a National or State bank in good credit within the State and payable at sight to the order of the State Commission of Highways, for an amount equal to at least 5 per centum of the amount of the proposal which such draft or check accompanies. This draft or check will be held by the Commission until the contract is executed and the bond is filed.

The successful bidder on each proposal will be required to give a bond for 50 per centum of the amount of the contract, such bond to be executed by a Surety Company to be approved by the Commission. The bond is for the purpose of insuring the delivery of the bituminous material as called for by the Commission.

The right is reserved to reject any or all bids.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

Bids received until Apr. 20, 1915.

Trenton-Allentown Turnpike

County of Mercer, State of New Jersey.

Sealed proposals will be received by the Board of Chosen Freeholders of the County of Mercer, at their place of meeting in the Court House, in the City of Trenton, County of Mercer, N. J., Tuesday, April 20, 1915, at 2:30 P.M., and then opened:

For furnishing all material, tools, machinery and labor necessary for the efficient and proper rolling, spreading and laying of a bituminous concrete surface, and all other work incidental thereto, on a certain macadam highway in Mercer County; known as the Trenton-Allentown Turnpike, beginning at or near Bromley Inn and extending to Mercerville.

As a guarantee of good faith and to secure the County of Mercer from any loss by failure to comply with the terms of said bid, all bidders shall accompany their bid with a certified check for $1000, payable to the order of Joseph H. Black, County Collector, or a like amount in cash. Upon the failure by the contractor to enter into an agreement in writing to perform the work according to the specifications, said certified check or cash shall be forfeited and considered as liquidated damages.

All bids containing proposals must be enclosed in sealed envelopes addressed to the Board of Chosen Freeholders of the County of Mercer, N. J., and bearing on the outside the name and address of the bidder.

No proposal will be received or opened until these conditions are complied with on the part of the bidder.

The check or cash of the successful bidder will be held until the contract is executed together with a bond approved by the Board of Chosen Freeholders or its committee in an amount not to exceed the full amount of the bid, conditioned for the faithful performance of the contract in accordance with the specifications.

Specifications are on file at the office of Theodore Tobish, County Engineer, Court House, Trenton, New Jersey, and may be there examined.

The form of proposal on file with said Engineer must be the form used in making bids.

The right is reserved to reject any or all bids or to waive any defect or informality in any bid should it be to the interest of the county to do so.

JOHN J. POWER, Director.

⁂

Bids received until May 1, 1915.

Sewers and Water-Works

Laurel, Md.

SEALED PROPOSALS, addressed to George W. Waters, Jr., Mayor, Laurel, Md., and marked "Sewer and Water Bids," will be received until two P.M., May 1st, 1915, for furnishing materials and constructing a complete system of sanitary sewers, extensions to water mains and other water-works improvements, comprising the following:

Approximately eight and seven-tenths miles of Sewers, 8-inch to 15-inch in diameter.
Approximately three and one-quarter miles of Water Mains, 2-inch to 8-inch in diameter.
Sewage Disposal Plant.
Compressed Air Sewage Ejectors.
Rapid Sand Filter Plant for Water-works, comprising Building and Equipment.
Motor Driven Pumping Machinery.

Bids will be received for the entire work or for any portion thereof.

Plans and specifications may be seen at the Collector's office, Laurel, Md., or at the office of Harry Stevens, Consulting Engineer, Union Trust Building, Washington, D. C., or may be obtained from the Engineer for Five ($5.00) Dollars per set.

Right is reserved to reject any or all bids or to accept any bid for the whole or any portion of the work.

For the information of prospective bidders, the Town has the necessary funds for the above work deposited in the bank.

GEORGE W. WATERS, JR., Mayor.
HARRY STEVENS, Engineer.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

Important Railway Buying

The Pennsylvania R.R. has made two important announcements concerning equipment. On Apr. 17 it was stated that the company would buy about $20,000,000 of motive power and equipment and Apr. 19 another official notice was made of contemplated purchase which should amount to $7,000,000. The total inquiry amounts to 16,245 freight cars, 195 locomotives and 191 all steel passenger cars. A portion of this equipment will be built in the company's Altoona shops. This is the first important equipment order to be placed since the outbreak of the European war. The Chicago & Northwestern is in the market for 2000 freight cars and 50 passenger coaches, the Virginian for 500 steel under frames.

RAILWAYS

New York—Erie R.R.—According to press reports this company is settling all disputes with cities that have been holding up its plans for completing the final 49 miles of double-tracking between New York and Chicago, Ill. This work is divided into three sections: 35 miles from Griffith to Lamox, Ind.; nine miles from Waterloo to Sternberg, N. Y., and five miles from Allegany to Carrollton, N. Y. R. C. Falconer, New York, N. Y., is Supt. Const.

West Virginia—The Louisville & Nashville R.R.—This company is preparing to construct 23 miles of railway from McRoberts, the present terminus, to Elk Horn, thus connecting the two greatest coal fields in eastern Kentucky. W. H. Courtenay, Lousville, Ky., is Ch. Engr.

North Carolina—Bids will again be received by the County Commissioners for the construction of the proposed railway to connect Shelby and Casar, N. C., about 21 miles. Noted Mar. 25.

✚North Carolina—Carolina & Northwestern R.R.—This company has awarded the contract for grading and improving its lines in the vicinity of Newton, N. C., to J. W. POLK, Newton. Noted Apr. 1.

South Carolina—Furman & Yemassee R.R.—This company has been incorporated to construct a railroad from Furman to Yemassee, S. C., about 20 miles. **J. H. Adams, W. O. Ellis** and H. Weindal are interested.

Georgia—Shearwood Ry.—Plans are being considered by this company for the construction of a 4½-mile extension to its line from Brooklet, Ga. J. S. Baxter, Garnett, S. C., is Ch. Engr.

Kentucky—Illinois Central R.R.—Plans are being prepared by this company for the construction of a new line from Dawsonsprings to Providence, Ky. A. S. Baldwin, Chicago, Ill., is Ch. Engr.

✚Ohio—Chesapeake & Ohio Ry. Co. of Indiana—This company has awarded contracts for the construction of a 28-mile railway from Portsmouth to Waverly, Ohio, as follows: W. W. BOXLEY, Roanoke, Va., for constructing roadbed leading to the Kentucky abutment at Siloam, Ky.; RINEHART & DENNIS CO., Charlottesville, Va., for constructing the first 7½ miles from Sciotoville to a point near Harrisonville; WINSTON & CO., Richmond, Va., for constructing the next eight miles to a point known as the Summit cut; ROBERT GRACE CONTRACTING CO., Pittsburgh, Penn., for constructing line from Summit cut to Waverly.

Montana—Chicago, Milwaukee & St. Paul Ry.—Announcement has been made that this company will soon start work on the regraveling of its entire roadbed from Deer Lodge to Haugan, Mont. C. F. Loweth, Chicago, Ill., is Ch. Engr.

Arkansas—Montant Ry.—This company was recently incorporated to construct a three-mile narrow gage railway from Montana, Ark., to the mines of the Johnson & King Mining Co. E. H. Johnson is interested.

✚Washington—Chicago, Milwaukee & St. Paul Ry.—This company has awarded to TWOHY BROS., Spokane, the contract for the construction of the 12 miles of new branch railway, which will tap the great Nooksack River timber belt, northeast of Bellingham. The line will be built from Goshen to Welcome, about 12 miles, and is estimated to cost about $400,000.

Washington—The Harvey Mill Co., Vancouver, Wash., has executed a mortgage to the Lumbermen's Trust Co., Portland, the proceeds to be used in the construction of a log railroad along Lewis River, where the company is acquiring large timber holdings.

Pacific Ry.—It is reported that this company plans the construction of a line to connect its tracks in Sumas, Wash., with the British Columbia Electric Ry., just across the border between the United States and British Columbia. It is stated the work of construction will begin early in May. W. L. Darling, St. Paul, Minn., is Ch. Engr.

Oregon—California & Oregon Coast R.R.—Twohy Bros., Spokane, Wash., railroad contractor, has arranged to finance and build a railroad from Wilderville, Ore., to Crescent City, Calif., about 81 miles. The estimated cost is $5,000,000.

Alaska—The route of the Alaska railroad to be built by the Government has been selected. The line will extend from Seward, on Resurrection Bay, to Fairbanks, about 471 miles. This will include the Alaska Northern road, already built, which will be bought by the Government. A branch line will be built from Matanuska Junction into the coal fields, about 38 miles. The estimated cost of the line, including the branch, is $26,800,000. The work will be in charge of the Alaskan Engineering Commission. Work will be started at once and about 40 miles of road will be completed this year. Noted June 18, 1914.

Alberta—Central Canada Ry.—The Alberta Legislature has adopted a resolution providing for a government loan, not exceeding $2,000,000, to this company, for the construction of the McLellan-Peace River Crossing line. This will insure the immediate construction of the line as the loan will be floated as soon as possible.

Alberta—Edmonton, Dunvegan & British Columbia Ry.—The Alberta Legislature has adopted a resolution to guarantee the branch line of this road from a point on the main line south to Grande Prairie, a distance not exceeding 60 miles, at $20,000 per mile.

ELECTRIC RAILWAYS

Bristol, Conn.—The Bristol & Plainville Tramway Co. is preparing plans for the extension of its lines in Bristol. C. E. Cockings, Bristol, is Mgr.

Albany, N. Y.—The United Traction Co. contemplates the construction of a loop at Grand St., Hamilton St., Trinity Pl. and Madison Ave. and to extend its Arbor Hill line. James F. Hamilton, Albany, is Gen. Mgr.

Amsterdam, N. Y.—The Fonda, Johnstown & Gloversville R.R. plans to improve its lines in Ft. Johnson and Amsterdam. W. H. Collins, Gloversville, is Gen. Mgr.

Buffalo, N. Y.—The International Ry. Co. has received an extension of time on its franchise to construct tracks in East Delavan and West Delavan Ave. J. C. Sheldon, Buffalo, is Pur. Agt.

Jersey City, N. J.—The bill, providing for a municipal railway in Jersey City in the downtown section to develop manufacturing, passed the State Assembly, Apr. 13. Noted Apr. 1.

Easton, Penn.—The Northampton, Easton & Washington Traction Co. has asked permission of City Council to lay a new switch and reconstruct its track with new and heavier rails on North Fourth St. between Church and Northampton St. W. O. Hay, Easton, is Gen. Mgr. and Pur. Agt.

Erie, Penn.—The City Council has granted a franchise to the Buffalo & Lake Erie Traction Co. to double-track its line on East Sixth St. and to construct a new line on West 17th St. A. R. Myers, Erie, is Gen. Mgr.

Erie, Penn.—The Erie & Southwestern Ry. Co. was recently organized to construct an electric railway to connect Erie, Sterretania, Platea, Cranesville, Albion, Springboro, Conneautville and Exposition Park to Conneaut Lake, about 40 miles. Surveys for the line have been made. H. C. Allen, Erie, is interested.

McConnellsburg, Penn.—Bids are now being received for the construction of the line between McConnellsburg and Fort London by the McConnellsburg and Fort London Ry. Co. A. Spotwood Dandridge is Engr.

Washington, D. C.—The Capital Traction Co. plans to construct an extension from 17th and U St. N. W. south on 17th St. to I St.; thence to 13th St.; thence to H St., and thence to Seventh St. It also proposes short links of track on 15th St. and on 18th St. and a loop at the intersection of Seventh St., Louisiana Ave. and C St. N. W. J. H. Hanna, Washington, is Ch. Engr.

Wilmington, Del.—The Wilmington & Philadelphia Traction Co. has applied to the City Council for an extension of time on its franchise to construct the proposed Washington St. and Boulevard extension in Wilmington. R. W. Crook, Wilmington, is Gen. Mgr. and Pur. Agt.

Hodgenville, Ky.—The citizens of Green and La Rue Counties contemplate the construction of an electric railway to connect Greensburg and Hodgenville. A. H. Benningfield, Taylorsville, is interested.

Chardon, Ohio—The Chardon, Jefferson & Meadville Interurban Ry. Co. plans to construct an electric railway to connect Chardon, Hampton, Rock Creek and Jefferson, a distance of about 30 miles. F. A. Pease, Cleveland, is Engr.

Cleveland, Ohio—The Cleveland Ry. Co. contemplates the extension of its Madison Ave. line from 117th St. to Rocky River. George L. Radcliffe, Cleveland, is Gen. Mgr.

Crystal, Mich.—The City Council has granted a franchise to the Muskegon-Saginaw Electric Co. to construct an electric railway through Crystal. This is part of a plan to build an electric line to connect Muskegon, Casnovia, Crystal, Egelston, Moorland and Saginaw.

Detroit, Mich.—The Detroit, Lansing & Grand Rapids Ry. Co. has completed surveys and will soon start work on the construction of an electric railway from Detroit to Lansing. Henry M. M. Wallace is Pres.

Madison, Wis.—The Janesville & Madison Traction Co. contemplates the construction of about one mile of new track in Madison. G. Pickhardt, 409 Washington Bldg., Madison, is Pres.

Whitewater, Wis.—The Badger Ry. & Light Co. is making surveys for the construction of an electric railway from Whitewater to Lake Geneva with a branch to Ft. Atkinson and Jefferson. H. B. Kamschulte, Milwaukee, is Pres. and Gen. Mgr.

Little Falls, Minn.—The Minneapolis & Central Minnesota Ry. Co. contemplates the construction of an electric railway from Little Falls to Pierz. B. H. Bradley is Ch. Engr.

Wichita, Kan.—The Arkansas Valley Interurban Ry. Co. has applied to the City Council for a franchise to construct an electric railway from 21st St. west to Mascot and north to the city limits. Charles D. Bell, Wichita, is Pur. Agt. and Ch. Engr.

Hot Springs, Ark.—The Mountain Valley Water Co. has completed surveys for the construction of the proposed electric railway from Hot Springs to Mountain Valley.

Dallas, Tex.—The Dallas Northwestern Traction Co. and the Dallas Southwestern Traction Co., which are affiliated concerns, have petitioned the City Commission to grant an extension of their respective franchises for a period of six months. The two companies propose to construct interurban lines out of Dallas to Denton on the north and Glen Rose on the south.

Galveston, Tex.—The City Council has granted a franchise to the Galveston, Houston & Henderson R.R. Co. to extend its line on Church St. J. H. Hill, Galveston, is Vice-Pres. and Gen. Mgr.

Oklahoma, Okla.—John R. Rose, who is interested in the Oklahoma Interstate Ry. Co., plans to extend the interurban line from Miami to Afton via Vinita to Centralia.

LIGHT, HEAT AND POWER

Salem, Mass.—It is reported that work will soon be begun on enlarging and improving the plant of the Salem Electric Lighting Co. at an estimated cost of $250,000. The work includes an addition to the power station, and the installation of a 6250-kw. generator, four 750-hp. Bigelow-Hornsby water-tube boilers, furnaces and stokers. The wires in the business district will also be placed underground. Noted Jan. 14.

✚Minetto, N. Y.—The Columbia Power Co. has awarded the contract for the construction of its power plant in Minetto to the WITHERSPOON & ENGLAR CO., Chicago, Ill. The plant will be located north of the bulkheads of the new dam, and will have an output of 12,000 hp.

✚New York, N. Y.—(Borough of Manhattan)—Bids were received Apr. 7 by the Board of Trustees, Bellevue and Allied Hospitals, for gas and electric-light fixtures in the main building and ward wing extension to the Harlem Hospital from: J. M. Knopp, $7700; Carbondale Machine Co., $8165; SHIPLEY CONSTRUCTION & SUPPLY CO., Columbia St., Brooklyn, $7250 (awarded contract).

Perth Amboy, N. J.—(Official)—Bids will be received until 8:30 p.m., Apr. 26, by the Board of Aldermen for the construction of a municipal electric-light plant. The work includes construction of a power station building, traveling crane, oil engines, generators, switchboards, transformers, pumps, heating apparatus, wiring and electric lights in the building, and outside distributing system, overhead and underground construction. Runyon & Carey, 845 Broad St., Newark, is Engr.-in-Charge. Wilbur La Roe is City Clk. Noted Nov. 19, Jan. 21 and Mar. 25.

New Brighton, Penn.—The Borough Council is considering the establishment of a municipal electric-light plant. A special committee has been appointed to ascertain the approximate cost of a plant.

Philadelphia, Penn.—George S. Idell, Arch., 34 South 16th St., Philadelphia, has plans and specifications on file for the installation of a power plant at the Pennsylvania Village for Feeble-Minded Women, Union County. Bids for the work are now being received by the Board of Managers of the institution.

✚Reading, Penn.—Joseph Bancroft & Sons Co., manufacturer of cotton goods, has awarded the contract for the construction of a one-story, 26x42-ft. brick boiler house to L. H. FOCHT & SON, Reading. It will cost about $5000.

Wampum, Penn.—It is reported that the Pennsylvania Power Co., Ellwood City, Penn., is considering the purchase of the municipal electric-light plant at Wampum. The former company has always supplied energy to operate the Wampum plant. M. V. Knapp is Gen. Mgr. and Cont. Agt.

Waynesville, N. C.—An election will be held May 4, at which the citizens will vote on the question of issuing $25,000 in bonds for the purpose of establishing a municipal electric-light plant.

Oxford, Ohio—The Trustees of Miami University, Oxford, plan to double the capacity of the power plant. Additional boilers and engines will be required. Walter G. Franz, Union Trust Bldg., Cincinnati, is Consult. Engr.

Cincinnati, Ohio—P. A. Henry, 713 Sycamore St., has commissioned Zettel & Rapp, Arch., 607 Johnston Bldg., to prepare plans for a six-story, reinforced-concrete power building at the southwest corner of Eighth St. and Broadway. The estimated cost is $125,000.

Clare, Mich.—At a recent election, the question of issuing $34,000 in bonds for the purpose of building a municipal electric-light plant was defeated.

Centerville, Iowa—Press reports state that the Centerville Light & Traction Co. is preparing to build a transmission line to Cincinnati, a distance of nine miles. It will furnish power for mines along the route, and for residences and street-lighting in the village of Cincinnati. Harry Longanecker, Centerville, is Supt. of the Centerville Light & Traction Co.

Iowa Falls, Iowa—A company has been formed in Iowa Falls, with a capital stock of $200,000, for the purpose of installing and operating a new heating and lighting system. John A. Reed, Cedar Rapids, is interested.

Orchard, Iowa—Press reports state that a company has secured options on sites along the Cedar River to be used for the construction of a hydro-electric plant at Orchard. The company plans to ultimately furnish power throughout several counties in northern Iowa and southern Minnesota.

Broken Bow, Neb.—At the election held Apr. 9, the citizens voted in favor of issuing $10,000 in bonds to be used for the installation of an electric-lighting system. Noted Apr. 1.

Nelson, Neb.—Bids will be received until noon, Apr. 30, by W. A. McHenry, City Clk., for furnishing all materials for an electric distribution system, and for labor to complete the system.

Gillette, Wyo.—Plans have been prepared by Royal I Salisbury, Newcastle, Wyo., for the construction of an electric-light plant in Gillette.

St. Louis, Mo.—It is reported that the question of establishing a municipal electric-light plant for this city is being agitated. James A. Hooke is Dir. of Pub. Utilities.

Prairie Grove, Ark.—The Prairie Grove Electric Co. has been organized with a capital stock of $6000 for the purpose of equipping and operating an electric-light plant.

Aransas Pass, Tex.—The City Council is reported to be considering the improvement of the municipal electric-light plant and water-works system at an estimated cost of $35,000.

McKinney, Tex.—It is reported that the city will purchase, some time this year for the municipal electric-light plant, a 200-kw., two-phase, 60-cycle, 2300-volt generating unit, directly connected. W. E. McKinnon is Supt. of the plant.

Plainview, Tex.—It is reported that the Malone Light & Ice Co., Plainview, has recently purchased the properties of the Lockney Electric Light Co., Lockney, and the Lubbock Light & Ice Co., Lubbock. Both plants will be enlarged and improved. Charles A. Malone, Plainview, is Secy. and Mgr. of the Malone Light & Ice Co.

Waco, Tex.—It is reported that the Texas Power & Light Co., Dallas, will construct a transmission line from its central station at Waco to connect Taylor, Thrall, Rockdale and Cameron. F. R. Slater, Dallas, is Gen. Supt.

✚Seattle, Wash.—The Gas Service Corporation of America has awarded the contract for the construction of two gas plants, one at Montesano, and the other at Bremerton, to the BURNETT CONSTRUCTION CO., at $150,000 for the two. Noted Feb. 25 under Montesano, Wash.

Bakersfield, Calif.—The Lakeview Oil Co. No. 1 will purchase an electric generating plant, five 70-hp. boilers, lathes and other equipment for a power house and machine shops it plans to install. W. J. Burnhart is Supt.

Merced Falls, Calif.—It is reported that the San Joaquin Light & Power Co., Fresno, will install a new unit at Merced Falls to cost about $75,000. The voltage of the transmission line from Merced Falls to Merced will be increased from 30,000 to 60,000 volts. A. G. Wishon, Fresno, is Gen. Mgr. of the San Joaquin Light & Power Co.

Blenheim, Ont.—The Town Council plans the installation of a new hydro-electric system for lighting and other purposes. The estimated cost is $40,000. It is reported that construction work will be begun soon. W. R. Fellows is Mayor.

Dutton, Ont.—The Hydro-Electric Commission will start work at once on the installation of an electric-lighting system. The Commission will purchase all material. The estimated cost is $10,000. Noted Feb. 18.

Rodney, Ont.—It is reported that the Town Council plans the installation of a hydro-electric plant to furnish light and power to the town. The estimated cost is $25,000. B. B. Graham is Reeve.

Kamloops, B. C.—The Municipal Council is having plans prepared by DuCane, Dutcher & Co., 470 Granville St., Vancouver, for extensions to the electric-lighting system at an estimated cost of $50,000. J. J. Carment is Clk. Noted Jan. 7.

BRIDGES

Springfield, Mass.—It is reported that the City of Springfield has petitioned the State Legislature for authority to build a bridge across the Connecticut River to West Springfield. F. H. Clark is City Engr.

✚West Groton, Mass.—(Official)—The Towns of Shirley and Groton have awarded the contract for the construction of a bridge over the Squannacook River at West Groton to the BEAVER CONTRACTING & ENGINEERING CORPORATION, 113 State St., Boston. Burtis S. Brown, 88 Broad St., Boston, is Engr. Noted Mar. 11.

Providence, R. I.—It is reported that the Department of Public Works is considering the construction of a bridge over the Providence River at Market Sq. between Washington Row and Canal St. The estimated cost is $76,360. O. F. Clapp is City Engr.

Hartford, Conn.—It is reported that the City Council plans to build a new bridge over the Park River at the foot of Trumbull St. The estimated cost is $9500. Roscoe N. Clark is City Engr.

★Cobleskill, N. Y.—(Official)—Bids will be received until 1 p.m., May 3, by Lorenzo J. Gordon, Supt. of Highways of the Town of Cobleskill, for the construction of a bridge over Cobleskill Creek. Ogden Eldredge is Town Clk.

Lancaster, N. Y.—Bids will be received until 2 p.m., May 3, by F. H. Maute, Town Clk., for the construction of a reinforced-concrete arch over Cayuga Creek. George C. Diehl, 575 Ellicott Sq., Buffalo, is Engr.

Bloomingdale, N. J.—The Boards of Chosen Freeholders of Morris County, Morristown, and Passaic County, Paterson, plan to build a new bridge over the Pequannock River between Bloomingdale and Butler. It will be of concrete, 42 ft. wide with a 30-ft. roadway.

★✚Camden, N. J.—(Official)—Bids were received Apr. 12 by the Board of Chosen Freeholders of Camden County for the construction of two reinforced-concrete bridges on Kings Highway, (A) Cooper River Bridge, (B) North Branch Cooper River Bridge. The bids follow: REESE, TAYLOR & CO., INC., Trenton, (A) $11,989, (B) $7418 (awarded contract); C. A. HENNESSEY, Burlington, (A) $7825 (awarded contract); H. Denburger, (A) $14,284, (B) $11,495; Ferro-Concrete Co., (A) $9974, (B) $7777; W. H. Johnson, Jr., (A) $11,895, (B) $8797; C. T. Eastburn Co., (A) $10,750, (B) $7900; Bridgeton Construction Co., (A) $11,211, (B) $8293; Whitaker & Diehl, (A) $9674, (B) $7546; Sparks & Evans, (A) $9495, (B) $7845; J. E. Brenneman, (A) $10,734, (B) $7898; Pugh, Hubbard Co., (A) $9947, (B) $8111; Kelley-McFeeley Co., (A) $10,650, (B) $8483. Noted Mar. 18.

Collingswood, N. J.—The Board of Chosen Freeholders of Camden County, Camden, is reported to be considering the construction of a bridge to connect Swan Ave., Collingswood, with Elm Ave., Woodlyn, Penn.

★Elizabeth, N. J.—(Official)—Bids will be received until 2 p.m., May 5, by the Board of Chosen Freeholders of Union County for the construction of a steel lift bridge over the Elizabeth River at Baltic St. and Trenton Ave., Elizabeth. Plans were prepared by the Strauss Bascule Bridge Co., 104 South Michigan Ave., Chicago, Ill. Jacob L. Bauer is County Engr. of Union County. Noted May 14, 1914, and Apr. 1, 1915.

Sea Isle City, N. J.—Bids will be received until noon, May 4, by Frank W. Fowkes, Clk. Bd. of Chosen Freeholders of Cape May County, Cape May C. H., for the construction of a Strauss type double-lift bridge on concrete piling, at Sea Isle City. L. M. Rice, Wildwood, is County Engr.

Easton, Penn.—Bids will be received until 11 a.m., May 14, by the Board of Commissioners of Northampton County for the construction of a reinforced-concrete bridge over Bushkill Creek, Bushkill Township. George F. P. Young is County Controller.

✚Franklin, Penn.—(Official)—The Board of Commissioners of Venango County has awarded contracts for bridge construction as follows: White Bridge over Oil Creek to the HORSEHEADS CONSTRUCTION CO., Horseheads, N. Y., at $3257; Utica Bridge to J. G. SHAFFER, Oil City, at $3499; Shippen Bridge to the PENN BRIDGE CO., Beaver Falls, at $3063. Noted Apr. 8.

Hollidaysburg, Penn.—(Official)—Bids will be received until May 7 by the Board of Commissioners of Blair County for the construction of eight county bridges, and for placing a creosoted block floor on one bridge. H. G. Hinkle, Altoona, is County Engr. W. S. Hostler is Clk. of Comrs. Noted Mar. 18.

★Philadelphia, Penn.—(Official)—Bids will be received until noon, Apr. 29, by M. L. Cooke, Dir., Dept. of Pub. Wks., Room 216 City Hall, for the construction of a bridge on the line of 58th St., over the tracks of the Philadelphia & Baltimore Central R.R.

Reading, Penn.—(Official)—Bids will be received until 10 a.m., Apr. 26, by D. K. Hoch, Controller of Berks County, for the construction of a reinforced-concrete bridge across Willow Creek in Richmond Township, to be known as the Fleetwood Bridge.

✚Reading, Penn.—(Official)—The Commissioners of Berks County have awarded the contract for the construction of a reinforced-concrete slab bridge over Hay Creek at White Bear, Robeson Township, to L. H. FOCHT, Second National Bank Bldg., Reading. Five other bids were received. Noted Apr. 8.

Reading, Penn.—It is reported that engineers of the Philadelphia & Reading Ry. are preparing plans for rebuilding the Center Ave., the Fourth St. and the Schuylkill Ave. Bridges over the Lebanon Valley tracks. Plans for the Sixth St. Bridge have been completed. The estimated cost of the work proposed is $100,000. C. Dillenback, Philadelphia, is Ch. Engr.

★Cumberland, Md.—(Official)—Bids will be received until 9:30 a.m., May 3, by the Mayor and City Council for the construction of a two-span reinforced-concrete arch over Wills Creek, at Market St., Cumberland. Plans were prepared by B. H. Davis, Whitehall Bldg., New York, N. Y. James P. Gaffney is City Engr.

Hillsville, Va.—(Official)—Bids will be received until noon, Apr. 30, by the Clerk of the Circuit Court of Carroll County for the construction of a 119-ft. steel bridge over Crooked Creek. The substructure will be of concrete. G. P. Coleman, Richmond, is State Highway Comr.

Jasper, Ala.—Bids will be received until May 10 by the Board of Commissioners of Walker County for the construction of four steel bridges across the Black Warrior River, at or near Cordova, Sipsey Fork, Mulberry River and Town Creek. Charles M. Sartain, Jasper, is Judge of Probate and Chn. of Comrs. Noted Mar. 4 and 25.

★✚Lake Charles, La.—The Police Jury of Calcasieu Parish has awarded the contract for the construction of a steel swing bridge over Black Bayou on Highway No. 4 to the VINCENNES BRIDGE CO., Vincennes, Ind., at $6396. Noted Mar. 11.

Nashville, Tenn.—(Official)—The State Legislature has authorized Davidson County to issue $250,000 in bonds for the construction of a bridge over the Cumberland River at Hydes Ferry. A special committee of the Davidson County Court has engaged F. E. Freeland, of the Freeland-Klyce Engineering Co., 65 Life & Casualty Bldg., Nashville, to prepare plans and estimates of the cost of constructing this bridge.

Henderson, Ky.—It is reported that the Fiscal Court of Henderson County has authorized the construction of a number of bridges on the principal roads of the county.

✚Canton, Ohio—(Official)—The Board of Commissioners of Stark County opened bids Apr. 14 for the construction of the James Steele Bridge on the Massillon-Millersburg Rd. in Tuscarawas Township, as follows: Hill & Hill, Elyria, $5834; F. E. HEISLER, Massillon, $5051 (awarded contract); Philip Dieffenbacher & Sons, Massillon, $5059; George W. Luke, Canton, $5523; Matthew Miller, Canton, $5934; Hahn Bros., Canton, $5938; A. E. Limbach, Minerva, $5286; Illinois Bridge Co., Chicago, $5698; Daley Bros. Construction Co., Bolivar, Ohio, $5529; S. C. Kissner & Sons, Delaware, Ohio, $5892. The Engineer's estimate was $6235. C. L. Stoner is Clk. of Comrs. Noted Mar. 25.

Canton, Ohio—The Board of Commissioners of Stark County has approved the plans for rebuilding the bridge at Tuscarawas St., W., and will shortly advertise for bids for construction. C. L. Stoner is Clk. of Comrs. Noted Sept. 3, 1914.

Cincinnati, Ohio—(Official)—Bids will be received until noon, May 7, by the Board of Commissioners of Hamilton County, for the construction of a culvert on Given Rd., near the residence of Raper Moore in Columbia Township. Albert Reinhardt is Clk. of Comrs.

Lima, Ohio—It is reported that the Board of Commissioners of Allen County will soon advertise for bids for constructing the Ford Bridge in Marion Township. It will be of concrete, four 50-ft. spans. H. J. Lawrence is County Clk.

Bloomington, Ind.—(Official)—Bids will be received until 2 p.m., May 3, by the Commissioners of Greene County for the construction of five bridges. George E. Kidd is County Audr.

Crawfordsville, Ind.—(Official)—Bids will be received until 10 a.m., May 4, by the Board of Commissioners of Montgomery County for the construction of three small bridges and the repair of three others. M. L. Nees is County Surv. Noted Mar. 25.

Dayton, Ind.—Bids will be received until May 5 by the Commissioners of Tippecanoe County, LaFayette, for the construction of a steel or reinforced-concrete bridge at Sycamore Crossing, near Dayton. The estimated cost is $4000. G. W. Baxter is County Audr. Noted Apr. 1.

✚Evansville, Ind.—The Board of Commissioners of Vanderburg County has awarded the contract for the construction of five bridges to the VINCENNES BRIDGE CO., Vincennes, at $9488, and a contract for two bridges to the PRITCHARD BRIDGE CO. at $2800. Bids were received Apr. 9. Noted Apr. 1.

Rensselaer, Ind.—(Official)—Bids will be received until 2 p.m., May 4, by the Commissioners of Jasper County for the construction and repair of a number of bridges. J. P. Hammond is Audr.

Rochester, Ind.—Press reports state that the Board of Commissioners of Fulton County has decided to build a bridge across the Tippecanoe River on the Michigan Rd., north of Rochester.

Salem, Ind.—Bids will be received until 1:30 p.m., May 4, by the Commissioners of Washington County for the construction of a number of bridges. Ira H. Rutherford is County Audr.

Winamac, Ind.—(Official)—Bids will be received until May 4 by the Board of Commissioners of Pulaski County for the construction of 13 bridges, ranging from 6 to 50 ft. in length. The total cost will be about $9000. C. E. Paul is County Surv.

✚Bloomington, Ill.—(Official)—The State Highway Commission has awarded the contract for the construction of a county line bridge between Rutledge Township, DeWitt County, and Empire Township, McLean County, to the ROCK RIVER BRIDGE CO., Oregon, Ill., at $4000. Eight other bids were received. The Engineer's estimate was $4650. Noted Apr. 1.

✚Custer Park, Ill.—(Official)—The Highway Commission of Will County has awarded the contract for the construction of four small bridges in Custer Township to WILLIAM POHL, Braidwood, Ill. Noted Mar. 25.

Woodstock, Ill.—Bids will be received until 11 a.m., Apr. 24, by the Town Clerk for the construction of a steel or reinforced-concrete bridge in Nunda Township. The estimated cost is $15,300. Plans on file with C. L. Tryon, Woodstock, County Supt. of Highways of McHenry County.

Beloit, Wis.—(Official)—We are advised by W. S. Hubbard, Ch. Engr. of the Rockford & Interurban Ry. Co., Rockford, Ill., that the bridge to be built just north of Beloit, will be constructed by the company's own forces. The estimated cost is $12,000. Noted Apr. 8.

Ft. Dodge, Iowa—(Official)—Bids will be received until 2 p.m., May 5, by J. L. Hanrahan, Audr. of Webster County, for the construction of 20 bridges and culverts. The estimated total cost is $27,616. G. P. Smith is County Engr.

Manchester, Iowa—(Official)—Bids will be received until noon, Apr. 24, by C. H. Bunker, Audr. of Delaware County, for the construction of 24 bridges and culverts. The county will furnish all cement. The estimated total cost is $11,500. Henry Klaus is County Engr. Noted Apr. 1.

Austin, Minn.—(Official)—Bids will be received until 4 p.m., Apr. 29, by O. J. Simmons, Audr. of Mower County, for the construction of 14 reinforced-concrete bridges, ranging from 24 ft. to 50 ft. long. A. C. White is Engr.

Duluth, Minn.—It is reported that bids will be received about Apr. 27 by D. A. Reed, Mgr. of the Light and Water Dept., for the construction of a concrete bridge over Tischer's Creek at First St. The estimated cost is $10,000.

✚Anthony, Kan.—The Board of Commissioners of Harper County has awarded the contract for the construction of a 300-ft. bridge over Bluff Creek to the WILLIAM McELROY CONSTRUCTION CO., Fort Scott, at about $9000.

Bloomington, Neb.—Bids will be reecived until noon, Apr. 30, by O. Muckle, County Clk. of Franklin County, for the construction and repair of all county bridges for a period of one year from date of contract.

Hartington, Neb.—The Commercial Club of Hartington is considering the matter of building a bridge over the Missouri River to connect Cedar County, Neb., with the City of Yankton, S. D. The bridge would cost approximately $800,000, and press reports state that Yankton has already raised $380,000 toward the project.

Ord, Neb.—Bids will be received until noon, May 4, by William A. Bartlett, Clk. of Valley County, for the construction of a number of bridges.

✚Cavalier, N. D.—(Official)—The Commissioners of Pembina County have awarded the contract for the construction of seven bridges to the FARGO BRIDGE & IRON CO., Fargo, N. D., at $5250. Noted Mar. 11.

✚St. Louis, Mo.—Press reports state that the Board of Public Service has awarded the contract for about 150,000 lin.ft. of concrete piling for completing the Free Bridge across the Mississippi River to JOHN LUND, at 83c. per lin.ft. Noted Apr. 1.

Alamosa, Colo.—Bids will be received until May 3 by the Board of Commissioners of Alamosa County for repairs to the concrete bridge over the Rio Grande River at the foot of Fourth St., Alamosa. Robert Ginn is Clk. of Comrs.

Artesia, N. M.—The Commissioners of Eddy County, Carlsbad, have instructed James A. French, State Engr., Santa Fe, to prepare plans for a 250-ft. steel bridge over the Pecos River, three miles north of Artesia.

✚San Marcial, N. M.—The Board of Commissioners of Socorro County, Socorro, has awarded the contract for the construction of a bridge across the Rio Grande River at San Marcial to the MIDLAND BRIDGE CO., Kansas City, Mo. Noted Oct. 29 and Mar. 18.

Everett, Wash.—Bids will be received until Apr. 26 by Hans Mumm, Jr., Engr. of Snohomish County, for the construction of a new concrete bridge on the site of present Bridge No. 332.

✚Hoquiam, Wash.—The Board of Public Works has awarded the contract for repairs to the trusses, machinery and piers of the Eighth St. Bridge to McCRARY & WILLARD, Spokane, at $7567. C. E. Fowler, Central Bldg., Seattle, is Engr. Noted Mar. 25.

Malaga, Wash.—(Official)—We are advised by A. H. Hogeland, Ch. Engr. of the Great Northern Ry., that no plans have been prepared for a $300,000 bridge across the Columbia River at Malaga, and nothing will be done for some time to come. Noted Apr. 8.

✚Port Orchard, Wash.—(Official)—The Commissioners of Kitsap County have awarded the contract for the construction of two wooden bridges at Silverdale and South Colby to SCHOLD & BOUGHTON, Silverdale, and JARVIS & GARVEY respectively. R. E. Gordon is County Audr. Noted Apr. 1.

Tacoma, Wash.—(Official)—Bids will be received until 11 a.m., May 1, by the Board of Commissioners of Pierce County for the construction of Bridge No. 18195A across South Prairie Creek. It will consist of a frame trestle, 145 ft. long, and a 60-ft. steel span on concrete piers. Henry C. Hitt is Bridge Engr. J. W. Slayden is Chn. of the Bd. Noted Apr. 8 under South Prairie, Wash.

✚Colusa, Calif.—(Official)—Bids were received Apr. 6 by the Board of Supervisors of Colusa County for the construction of 37 bridges, (A) "Prize Trough" Bridge, (B) "Maxwell Trough" Bridge, (C) 35 small bridges. The bids were as follows: DUNCAN-HARRELSON CO., 1405 Chronicle Bldg., San Francisco, (A) $33,745 (awarded contract), (B) $8996, (C) $28,988 (awarded contract); C. E. COTTON, 540 32nd St., Oakland, (A) $39.396, (B) $7840 (awarded contract), (C) $37,664; R. W. Moller, (A) $43,459, (B) $8603, (C) $41,859; Construction & Engineering Co., (A) $43,380,(B) $9780, (C) $38,027; Foster-Vogt Co., (A) $40,875, (B) $11,500, (C) $39,643. J. W. Kaerth is County Surv. Noted Mar. 18.

Holtville, Calif.—(Official)—The Board of Supervisors of Imperial County, El Centro, has rejected all bids received Apr. 12 for the construction of a reinforced-concrete bridge over the Alamo River on the extension of Sixth St., Holtville. The Board plans to build the bridge with its own forces. M. S. Cook is Clk. of the Bd. Noted Mar. 25.

✚San Francisco, Calif.—The Board of Public Works has awarded the contract for repairing the Third St. Bridge to MONSON BROS., 1907 Bryant St., San Francisco, at $6780.

Victoria, B. C.—The City Council is having plans prepared for the construction of a swing span bridge to replace the present Rock Bay Bridge. The estimated cost is $7500. C. H. Rust is Engr.

WATER SUPPLY—IRRIGATION

Boston, Mass.—The following bids were received Apr. 16 by the Metropolitan Water and Sewerage Board for a masonry tower on Bellevue Hill: John Cashman & Sons Co., 247 Atlantic Ave., Boston, $46,000; Coleman Bros., Boston, $48,900; C. A. Dodge Co., Erie and Albany St., Cambridge, $52,757; William Crane, Hayward and Amherst St., Cambridge, $54,590; John A. Rooney, 319 Washington St., Boston, $54,735; H. P. Converse & Co., 88 Broad St., Boston, $56,184; John F. Griffin Co., 17 Milk St., Boston, $61,798; Norcross Bros. Co., Worcester, $63,350; A. Piotti, 38 Olney St., Dorchester, $70,314; J. J. Prindiville Co., Framingham, $71,674, and J. E. Locatelli Co., Inc., 46 Cornhill St., Boston, $73,995. Dexter Brackett, 1 Ashburton Pl., is Ch. Engr. Noted Apr. 8.

✚Middleboro, Mass.—The contract has been awarded to the HENNEBIGNE CONSTRUCTION CO., New York, N. Y., at $23,140, for constructing a 500,000-gal, concrete tank on a concrete tower. Noted Feb. 18 and Mar. 18.

Newton, Mass.—Bids will soon be received by the Metropolitan Water and Sewerage Board for laying 8000 ft. of 60-in. water pipe in Newton. Dexter Brackett, 1 Ashburton Pl., Boston, is Ch. Engr.

Shrewsbury, Mass.—(Official)—Bids will be received until 2 p.m., Apr. 24, by R. E. Allen, Chn. of Water Comrs., for constructing a complete water system. Noted Feb. 11.

Worcester, Mass.—G. M. Wright, Mayor, favors continuing the construction of the Asnebumskit water supply system. The finishing of the dam and other work will cost $300,000. Mayor Wright favors an expenditure of $75,000 a year until completed.

Albany, N. Y.—The Council contemplates spending $100,000 for the extension of the water system and elimination of the old water mains. David E. Pugh is City Clk.

Brocton, N. Y.—Bonds for $20,000 have been sold, the proceeds of which will be used for the construction of a water system. H. M. Flemming is Clk. Noted Apr. 1.

Gates, N. Y.—(Official)—Bids will be received until 8 p.m., Apr. 27, by R. B. Wilson, Chn. Water Comrs., German Insurance Bldg., Rochester, for constructing a water system. Noted Apr. 8.

Gilbertsville, N. Y.—The village has been granted permission by the State Conservation Commission to construct an additional water system.

Harriman, N. Y.—Press reports state that plans have been prepared by Knight & Bush, Monroe, for the construction of a water system, estimated to cost $60,000.

★New York, N. Y.—(Official)—Bids will be received until 11 a.m., May 4, by the Board of Water Supply, Municipal Bldg., for Contract 143 for constructing 15 miles of wire fence with concrete posts and concrete and wood guard rails at the Ashokan reservoir in Olive, Marbletown and Hurley.

✚New York, N. Y.—(Official)—Bids were received Apr. 1 by the Board of Water Supply, Municipal Bldg., for constructing eight miles of guard walls at the Ashokan reservoir an for about five miles of road construction as follows: WINSTON & CO., 290 Broadway, New York, N. Y., at $189,150 (awarded contract); A. L. Guidone & Co., $223,975; Louis Wechsler, $392,000; State Highway Construction Co., $248,460 Frawley Kaufman Contracting Co., $221,110; H. P. Sproul, $221,950; Harris Rose Construction Co., $200,550; Conners Bros. Co., $256,870; Daniel F. Dunn, $237,470; Continental Public Works, $296,620; Nardone Petrillo & James Garafagno Co., $216,306; Ward & Tully, Inc., $253,185, and De Graff & Hogenbloom & Zadoc Boice, $240,090. Noted Apr. 1.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received Apr. 14 by the Department of Water, Gas and Electricity for laying water mains in Bailey, Cedar and Sedgwick Ave., East 184th and East 225th St., Fordham and Kingsbridge Rd. and Harlem River Terrace as follows: Knight & DiMicco, $16,314; Rogers & McManus, $21,170; Soraci Contracting Co., $19,700; Beaver Engineering Co., $17,887; James McAvoy, $18,900; Louis D. Gregory, $16,714; C. Coppetto, $18,311; Brady Oltarsch, $21,132; Wilton Contracting Co., $18,058; Burnside Contracting Co., $18,944; Hanover Contracting Co., $18,979, and Melrose Construction Co., $6,565. Noted Apr. 8.

Watervliet, N. Y.—The Solomon-Norcross-Keis Co., Candler Bldg., Atlanta, Ga. and Watervliet, has been retained to prepare plans for the construction of a water system. Bonds for $625,000 have been authorized. Noted Mar. 11 and 18 and Apr. 1.

Plainfield, N. J.—The Plainfield-Union Water Co. has been granted permission by the State Public Utilities Commission to issue bonds for $100,000, part of which will be used for the improvement and extension of the water system.

Coatesville, Penn.—The city contemplates constructing a water-works on Rock Run at an estimated cost of $185,000.

Lancaster, Penn.—Bonds for $125,000 have been voted by the citizens, the proceeds of which will be used for new pumps and boilers for the water-works. I. Carpenter is City Engr. Noted Feb. 18.

Galax, Va.—The city plans to construct a water system. D. A. Robertson is Mayor.

✚Kannapolis, N. C.—The contract has been awarded to T. C. THOMPSON & BROS., Charlotte, by the Cannon Mfg. Co. to construct a filtration plant.

Morganton, N. C.—The construction of a water system for the State Hospital is under consideration. The State Legislature appropriated $60,000 for its construction.

Walterboro, S. C.—Bids will be received until May 14 for constructing a water system, the estimated cost of which is $18,000. H. W. Black, Jr., is Chn. Bd. of Comrs. Noted May 28 and July 30, 1914, and Feb. 18, 1915.

Rome, Ga.—William T. HcCormick, Engr., 12 Third Ave., has been retained to design a mechanical gravity filtration plant for Anchor Duck Mills. C. E. McLin is Pres.

Jacksonville, Fla.—About 500 water meters will be purchased by the Water Department.

Port Richey, Fla.—According to press reports, S. Wessilius, Grand Rapids, Mich., contemplates constructing a water system.

Northport, Ala.—An election will be held May 17 to vote on the question of issuing $16,000 in bonds, the proceeds of which will be used for the construction of water and sewer systems. C. P. Bell is Mayor.

✚Notasulga, Ala.—The contract has been awarded to B. F. ROBERTS, Macon, Ga., at $10,474, for constructing a water system. Bids were opened Mar. 2. Noted Feb. 25 and Mar. 18.

Whitecastle, La.—The construction of a water system and electric-light plant is under consideration by the city. S. M. Levy is Chn. of Com.

Henderson, Tenn.—An election will be held to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a water system.

Ansonia, Ohio—(Official)—G. F. McKibben, Van Wert, Ohio, has been retained by the village to prepare plans for the construction of a water system. Milton R. Millette is Village Clk.

Canton, Ohio—About $47,000 will be spent by the city for the extension and relaying of water mains in various streets. L. B. Ohliger is Supt. of Water-Wks.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Apr. 30, by Philip Fosdick, Dir. Pub. Ser., for water mains for Madison Rd., Yononte Ave., Deerfield Rd., Euclid Ave., Kennedy Rd., Montgomery Rd. and Belmont Ave.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Apr. 30, by Philip Fosdick, Dir. Pub. Ser., for furnishing valves for the water department.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Apr. 30, by Philip Fosdick, Dir. Pub. Ser., for laying c.-i. water pipe with specials and valves in various streets.

Cleveland, Ohio—Bids will be received by the Commissioner of Purchases and Supplies, until noon, Apr. 30, for riveted steel pipe and steel rails for the water department.

Columbus, Ohio—Bids will be received until noon, Apr. 28, by H. C. Barrett, Secy., Dir. Pub. Safety, for 200 fire hydrants.

Greenwich, Ohio—It is stated that plans are being prepared for the construction of a new reservoir and for pumps. F. H. Daniel is City Clk.

Port Clinton, Ohio—(Official)—Bonds for $10,000 have been sold, the proceeds of which will be used for the improvement of the water system. W. H. Williamson is Village Clk. Noted Mar. 4 and Apr. 8.

Toledo, Ohio—(Official)—Bids were received Mar. 31 for constructing a high-pressure fire service pumping station as follows: Arrow Engineering Co., St. Louis, Mo., $192.907; A. Bentley & Sons Co., Toledo, $135,000, and Henry J. Spieker Co., Toledo, $177,508. The W. J. Sherman Co., Toledo, is Engr. Noted Feb. 25, Mar. 4 and 15.

Carlyle, Ill.—Bids will be received until 2 p.m., May 1, by the Board of Local Improvements for laying 9300 ft. of 4-in. c.-i. water mains and 2-in. galvanized-iron pipe. H. C. Norcross is Mayor.

Kewanee, Ill.—The citizens contemplate spending $11,000 for making extensions to the water system. C. A. Dunbar is Supt. of Water-Wks.

+Madison, Wis.—The contract has been awarded by the Board of Public Works to JOHN T. BLAKE, Madison, at $39,000, for laying c.-i. water mains.

Melrose, Wis.—Bonds for $10,000 have been voted by the citizens, the proceeds of which will be used for the construction of a municipal water system. The work includes a 30,000-gal. steel tank on a 100-ft. tower, 2310 ft. of 6-in. and 4950 ft. of 4-in. c.-i. water pipe, 19 double hydrants and a 6-hp. gasoline engine. W. E. Miller is Engr. Noted Feb. 25.

Colo, Iowa—Bonds for $18,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system. L. W. Cox, Youngerman Blk., Des Moines, is Engr. Noted Apr. 1.

+Goldfield, Iowa—The contract has been awarded to the C. W. ROLAND CO., Des Moines, at $10,475, for constructing a water system. Other bids were: M. C. Fraser, Minneapolis, Minn., $10,900; Des Moines Bridge & Construction Co., Des Moines, $10,350; Whyte & Son, Goldfield, $10,500, and the Alamo Bridge & Construction Co., Minneapolis, Minn., $10,600. Noted Sept. 24.

Linn Grove, Iowa—C. A. Fulton, Pres. Water-Wks. Bd., would like to hear from engineers concerning the construction of a water system. Noted Jan. 14 and Feb. 25.

Lowden, Iowa—The citizens will hold another election to vote on the question of installing a water system. Noted Mar. 18.

Morning Sun, Iowa—Bids will be received until 1:30 p.m., May 3, by W. B. Garvin, Town Clk., for constructing a water system. Harper & Stiles, Grand Ave. Temple, Kansas City, Mo., is Engr. Noted July 2 and Mar. 18.

Walker, Minn.—Bonds for $10,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system.

Ft. Scott, Kan.—Bonds for $32,000 have been voted by the citizens, the proceeds of which will be used for the construction of a filtration plant. F. D. Martin, Rialto Bldg., Kansas City, Mo., is Engr. Noted Jan. 14 and Mar. 18.

Broken Bow, Neb.—Bonds for $15,000 have been voted, part of the proceeds of which will be used for the construction of a water system. Noted Jan. 14 and Apr. 1.

Central City, Neb.—Bonds for $21,000 have been voted by the citizens, the proceeds of which will be used for making extensions to the water system.

Kimball, Neb.—Bonds for $8000 have been voted, the proceeds of which will be used for the extension of the water system.

Medicine Lake, Mont.—(Official)—Bonds for $18,000 have been sold, the proceeds of which will be used for the construction of a water system. H. Everson is Town Clk. Noted Sept. 24, 1914, and Apr. 3, 1915.

Kansas City, Mo.—(Official)—Bids will be received until 2 p.m., May 5, by J. P. Langan, Pur. Agt., for a steam turbine, reduction gear, centrifugal pumping unit. Plans are on file with Burton Lowther, Ch. Engr.

St. Louis, Mo.—Improvements and extensions to the water system, estimated to cost $2,250,000, have been recommended by E. E. Wall, Water Comr.

Beebe, Ark.—The city contemplates constructing a water system at an estimated cost of $30,000. Albert C. Moore, Frisco Bldg., Joplin, Mo., is Engr.

Harrison, Ark.—Plans have been prepared by Albert C. Moore, Frisco Bldg., Joplin, Mo., for the construction of a water system. Noted Nov. 5 and Jan. 14.

Marshall, Ark.—The construction of a water system is under consideration by A. B. Johnson and C. B. Johnson.

Aransas Pass, Tex.—Bonds for $35,000 have been sold. Part of the proceeds will be used for the construction of a water system.

Columbus, Tex.—The city contemplates an expenditure of $8000 for laying 20,000 ft. of wooden water mains and installing hydrants.

Hillsboro, Tex.—At an election, held Apr. 6, the citizens voted against the question of issuing bonds, the proceeds of which was to have been used for the construction of a water system. Noted Mar. 18.

+Houston, Tex.—The contract has been awarded to CHARLES S. BASHAM, Houston, at $5462 each for concrete water tanks. Noted Mar. 11.

Chandler, Okla.—At a recent election the citizens voted against issuing bonds, the proceeds of which was to have been used for the construction of a water system. A. B. Oleson is Mayor.

Wilburton, Okla.—The citizens defeated the bond issue, the proceeds of which was to have been used for the construction of a water system. Noted Dec. 17 and 31 and Mar. 18.

Craig, Colo.—Bonds for $40,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system. Noted Apr. 8.

Edgewater, Colo.—At an election held recently the citizens voted against the question of issuing bonds for $40,000, the proceeds of which was to have been used for the construction of a new water system.

Montrose, Colo.—(Official)—Bids will be received until May 6 for furnishing c.-i. pipe, Matheson joint and steel pipe, hydrants and valves and for laying about six miles of water mains and four miles of 10-in. and 12-in. flow line of either Matheson joint, c.-i. or steel pipe. Burns & McDonnell, Kansas City, Mo., is Engr. Noted Feb. 18, Mar. 11 and 25 and Apr. 8.

Caldwell, Idaho—The directors of the Black Canyon Irrigation District have had a conference with C. L. Tallmadge, New York, N. Y., concerning the resumption of work on its irrigation system.

Sterling, Idaho—The Boon Creek Irrigation Co., recently incorporated with $10,000 capital, will construct an irrigation system. Harry Hamilton is interested.

Price, Utah—Bonds for $10,000 have been sold, the proceeds of which will be used for the improvement of the water system. Noted Dec. 17.

Glendale, Ariz.—Bonds for $50,000 have been voted, the proceeds of which will be used for the construction of a municipal water system.

Aberdeen, Wash.—The low bidders for pumps for the Fairview reservoir were: Henry R. Worthington Co., $6138, for a steam turbine engine; Douglass Bros., Aberdeen, $3795, for an electrical pump and Snow & Co., $19,960, for a crude oil engine.

Ephrata, Wash.—According to press reports the local water system owned by L. H. Pruitt has been sold to F. P. Grover for $20,000. Extensions will be made.

Everett, Wash.—A report has been made by Burns & McDonnell, Kansas City, Mo., to the City Council, estimating the value of the present water system at $1,091,633. The cost of connecting the Sultan River supply with the system is estimated at $585,000, or with a supply from Miners Creek, $623,170. Noted Dec. 10.

Seattle, Wash.—The City Council contemplates constructing a 1700-ft. reinforced-concrete dam on the Cedar River near the leaks in the impounding basin of the Cedar River Dam. A. H. Dimock is City Engr.

Seattle, Wash.—Plans have been approved by the Board of Public Works for laying water mains in 37th Ave., N. E. Estimated cost, $15,000.

Echo, Ore.—Bids will soon be received by the Teel Irrigation District for the purchase of about $800,000 in bonds, the proceeds of which will be used for the construction of a dam, a tunnel and irrigation ditches. W. B. Hinkle, Echo, is Ch. Engr. Noted Jan. 28.

Eugene, Ore.—Contracts will probably be awarded to H. E. Doering, Portland, at $9245, and to the Mohawk Lumber Co., Eugene, at $6785, for constructing a 2,500,000-gal. concrete reservoir. Noted Oct. 8, Feb. 11, Mar. 1 and Apr. 1.

Oregon City, Ore.—A bond issue for $375,000 has been declared legal by the Supreme Court. The proceeds will be used to obtain water from the south fork of the Clackamas River. William Andresen is one of the Water Commissioners. Noted Mar. 18.

Dundas, Ont.—McPhie, Kelly & Darling, Bank of Hamilton Bldg., Hamilton, has prepared plans for the extension of the water system including a new storage dam. The estimated cost is $6000. R. W. Karch is Engr. of Pub. Utilities Comn.

Newmarket, Ont.—The Fire and Light Committee will purchase a new 15-hp. electric pump for the water-works. The estimated cost is $9000.

Ottawa, Ont.—Bids will be received until 5 p.m., May 12, by the Secretary of the Water-Works Committee for furnishing and erecting one electrically operated pumping unit. R. L. Haycock is Acting Water-Wks. Engr.

SEWERS

Andover, Mass.—The city has appropriated $75,000 for extending the sewer system to the Abbott and Marland section. McClintock & Woodfall is Engr.

Boston, Mass.—Bids will be received until Apr. 23 by the Department of Public Works for constructing sewers and drains in Gustine and Fairview St. and in Peacevale Rd., Dorchester District. L. K. Rourke is Comr.

Fall River, Mass.—Plans are being prepared by Fay, Thorndike & Spofford, Engr., for the construction of 60 miles of new sanitary sewers and 15 miles of storm sewers.

+Fitchburg, Mass.—Bids were received Apr. 7 by the Board of Sewage Disposal Commissioners for constructing Section 7 of the main intercepting sewer as follows: JOSEPH LONG & CO., Leominster, $12,099 (awarded contract); F. A. Gammino, Providence, R. I., $14,065; D'Onfro Bros., Leominster, $15,688; Ralph E. Bull, $16,931. Noted Mar. 18.

Marlboro, Mass.—The city contemplates extending the sewer system. Estimated cost, $58,000. Warren J. Simonds is City Engr.

Hartford, Conn.—At a recent election the citizens defeated the proposition to appropriate $50,000 for the construction of a storm sewer in South St.

Binghamton, N. Y.—Bids will be received until Apr. 28 by D. W. Foster, City Clk., for constructing sewers in Judson, Lorraine and Prospect Ave., and in Baxter, Julian and Hazel St.

Great Neck Station, N. Y.—Bids will be received until Apr. 30 by John B. Gilliar, Chn. Sewer Comn., for the construction of 12 miles of 8- to 24-in. vitrified pipe sewers, appurtenances and two pumping stations, c.-i. force mains and disposal works and sedimentation tanks. Carl H. Watson is Engr.

Newburgh, N. Y.—The city contemplates the construction of the Bridge St. sewer from William and Renwick St. to the Quassaick bridge.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received by L. H. Pounds, Borough Pres., until 11 a.m., Apr. 28, for constructing and repairing sewers in the various streets of the Borough.

New York, N. Y.—(Borough of Queens)—(Official)—Bids were received Apr. 14 by Maurice E. Connolly, Borough Pres., for (a) constructing sewers in Britton Ave. from Broadway to Ithaca St., and in Ketcham St. from Britton Ave. to Pettit Pl., Second Ward, (b) constructing sewers in Grove St. from Seneca and Covert Ave. to Fairview Ave., and in Fairview

Ave. from Linden to Ralph St., Second Ward, as follows: Rodgers & McManus, (a) $8080, (b) $9696; Peace Bros., (a) $7007, (b) $9397; Clancy & Nuhn, (a) $5480, (b) $9375; James H. Johnson, (a) $4386, (b) $8180; Charles A. Myers Contracting Co., (a) $6230, (b) $10,606; William J. Horie, (a) $4395; H. J. Mullen Contracting Co., (a) $5508, (b) $9771; Evergreen Construction Co., (a) $5732; Green Contracting Co., (a) $5001; Tony Lapadula, (a) $5722, (b) $9236; Briggs & McLoughlin, (a) $6616, (b) $11,220; Rosenthal Engineering & Contracting Co., (b) $9072; Gifford Construction Co., (b) $8703; Joseph L. Sigretto, (b) $10,644; Murphy Bros., (b) $21,283; Stanhope Contracting Co., (b) $10,041. Noted Apr. 8.

Niskayuna, N. Y.—The Town Board contemplates the extension of a sewer in District No. 1.

Olean, N. Y.—Bids will be received until May 15 by H. E. Bunce, City Engr., for the construction of 8000 ft. of 10- to 18-in. vitrified sewer. Estimated cost, $8000.

Rensselaer, N. Y.—(Official)—(Correction)—The city contemplates constructing sewers in Akin Ave., Ring, Second, Fifth, Ninth and Birch St. Frank R. Lanagan is City Engr.

Yorkville, N. Y.—Bids will be received until 8 p.m., Apr. 30, by the Board of Trustees for constructing 3684 lin.ft. of 12-in. and 2050 lin.ft. of 8-in. vitrified pipe sewer, nine manholes and three lampholes. Noted Dec. 31.

Haddonfield, N. J.—The Board of Commissioners has approved a bond issue of $17,000 for the construction of sewers in Kings Highway. Noted Mar. 11.

Hammonton, N. J.—According to press reports the proceeds of the $108,500 bond issue will be used to pay for sewer work already completed and not for proposed work as reported in the issue of Apr. 15.

Newark, N. J.—Bids will be received until 2 p.m., May 11, by the Passaic Valley Sewerage Commission, Essex Bldg., for constructing the northern portion of Section 19 of the Auquackanonk, Garfield and Passaic branch sewer of the Main Intercepting Sewer.

Trenton, N. J.—Bids will be received until 2:30 p.m., Apr. 28, by the City Commissioners for the construction of a sewer in Pennsylvania Ave. Frank Thompson is City Clk.

✚Ventnor, N. J.—(Atlantic City post office)—The contract for the construction of a force main and intercepting sewer has been awarded to the CANTRELL CONSTRUCTION CO., Philadelphia, Penn., at $27,075. S. H. HENRY has been awarled the contract for the construction of a sewage-disposal plant. Noted Feb. 4 and Mar. 4.

Jersey Shore, Penn.—Plans have been prepared by C. D. McCullough, City Engr., for the construction of a sewer in Burke St.

★Philadelphia, Penn.—Bids will be received until noon, Apr. 29, by M. L. Cooke, Dir. of Pub. Wks., for constructing a 6x9-ft. reinforced-concrete sewer in Venango St., a 13-ft. 6-in. brick sewer in Ashdale St., a 6-ft. 6-in. brick sewer in Adams Ave., a 10-ft. brick sewer in Robbins St., reconstruction of sewers in Thompson St., a 5-ft. brick sewer in Farhill St., a 10-ft. 6-in. sewer in Seventh St., a 5-ft. 6-in. and a 6-ft. sewer in 34th St. and for special work in Annsbury St. Plans are on file at the office of Engineering News, 36th St. and 10th Ave., New York.

Philadelphia, Penn.—Bids will be received until Apr. 29 by M. L. Cooke, Dir. Pub. Wks., for constructing branch and main sewers, according to Schedules A to D; Schedule E, shafting and belt mule drive over enginer No. 1 at the Pennypack Creek pumping station.

★Reading, Penn.—(Official)—Bids will be received until 11 a.m., Apr. 30, by Charles Marks, City Clk., for the construction of a sewer in West Elm and Elm St. and for the construction of a sewage filter on Fritz's Island. Edmund B. Ulrich is City Engr. Noted Sept. 17 and Oct. 1.

Wilkes-Barre, Penn.—(Official)—Bids will be received until May 25 by F. H. Gates, City Clk., for constructing brick, segment block and terra cotta pipe sewers. B. K .Finch is City Engr.

Arlington, Md.—Plans have been prepared by Ezra B. Whitman, Engr., 1319 Fidelity Bldg., Baltimore, for the construction of a sewer system and a sewage-disposal plant. Noted Dec. 10.

Fairmont, W. Va.—The city plans to construct storm sewers estimated to cost $40,000.

Elizabeth City, N. C.—Bids will be received until May 1 by J. S. Whitehurst, City Engr., for constructing sewers.

Walterboro, S. C.—Bids will be received until May 14 by H. W. Black, Chn. of Bd. Comrs., for the construction of a sewer system, estimated to cost $13,000. The H. S. Jaudon Engineering Co., Southern Bank & Trust Bldg., Savannah, Ga., is Engr. Noted Feb. 18 and Mar. 25.

✚Ft. Myers, Fla.—The contract for the construction of 725 ft. of 12-in., 716 ft. of 10-in., 1570 ft. of 8-in. pipe sewers, five manholes, and two flush tanks has been awarded to F. E. TRAPP.

Tampa, Fla.—(Official)—An election will be held May 25 to vote on the bond issue of $250,000 for the extension of the sewer system. R. B. Martin is City Engr. Noted Apr. 8.

Jackson, Miss.—The city contemplates constructing sanitary sewers in Ewing, Line, Lewis and Central St.

Hammond, La.—An election will soon be held to vote on the question of issuing $33,840 in bonds, the proceeds of which will be used for the construction of a sewer system. J. H. O'Neal is Engr.

Alliance, Ohio—Bids will be received until Apr. 26 by J. E. Hogan, Clk. of Bd. of Pub. Ser., for constructing the Ryan Run storm sewer.

Barberton, Ohio—Bids will be received until Apr. 24 by O. D. Everhard, Dir. Pub. Ser., for constructing main and storm sewers in District No. 1.

Cheviot, Ohio—(Cincinnati post office)—Bids will be received until noon, Apr. 24, by Albert J. Rensing, Clk., 3507 Harrison Ave., for the construction of a sewer in Harrison Ave. from Beech St. to Francis Ave.

✚Cleveland, Ohio—The contract for the construction of a sewer in Waterloo Rd., W. E., has been awarded to the AMATA CONSTRUCTION CO., at $13,550.

Dayton, Ohio—The city contemplates constructing storm sewers in Commercial, Eaton, Highland, Arbor, Evaston and Old Orchard St. The estimated cost is $15,500.

Quincy, Ohio—(Official)—The Smith & Boulay Co., 320 Nasby Bldg., Toledo, has been retained by the village to prepare plans for the construction of a sanitary sewer system and a sewage-disposal plant.

✚Urbana, Ohio—The contract for the construction of the South Main St. sewer has been awarded to CHARLES F. SMITH CO., Dayton, at $9300. BOYD & COOK, Dayton, has been awarded the contract for the construction of storm sewers in Scioto and Kenton St., at $7800. Noted Apr. 8.

Ft. Wayne, Ind.—The City Council contemplates the construction of a main sewer in the Spy Run District.

Grand Rapids, Mich.—The city contemplates constructing a sewer system. The estimated cost is $45,000. L. E. Stevens is City Engr.

✚Maywood, Ill.—The contract has been awarded to the TONKAWA CONSTRUCTION CO., Kansas City, Mo., at $85,000, for the construction of 2½ miles of concrete and vitrified pipe outlet sewer and 5½ miles of 12-in. and 15-in. lateral sewers. Bids were opened Apr. 1. Noted Mar. 25.

Kenosha, Wis.—Bids will be received until 2 p.m., Apr. 23, by B. C. Brennan, City Engr., for constructing 1500 ft. of 84-in., 2700 ft. of 66-in., and 1200 ft. of 36-in. sewers.

✚Madison, Wis.—(Official)—The contracts for constructing sewers in the Fair Oaks district have been awarded to J. T. BLAKE, at $39,800, SWEENEY BROS., at $31,500, and the PASTORET CONSTRUCTION CO., at $8197. Noted Apr. 8.

New Glarus, Wis.—(Official)—Bids will soon be received by E. J. Hoesly, Village Clk., for constructing 1015 ft. of 8-in., 283 ft. of 6-in., 720 ft. of 5-in. vitrified pipe sewers, five manholes, one lamphole and one flush tank.

Sheboygan Falls, Wis.—The lowest bid received by the Common Council for the construction of sanitary sewers in Monroe St. was that of the David Van Stelle Co.

Sheboygan Falls, Wis.—The Council Commission has passed an ordinance authorizing an issue of bonds for $35,000 for the completion of the Stringham Creek sewer.

Ames, Iowa—Bids will be received until 7:30 p.m., May 3, by A. B. Maxwell, City Clk., for constructing sanitary sewers and sub-drains in Fifth St. and Douglas Ave.

Jewell Junction, Iowa—(Jewell post office)—Bids will be received until May 3 by M. J. Steverson, Clk., for the construction of a sanitary sewer system, disposal plant and outlet sewers. Noted Apr. 1.

Mt. Ayr, Iowa—Plans have been prepared by W. T. Archer & Co., Kansas City, Mo., for the construction of a sewer system. Noted Mar. 25.

✚Postville, Iowa—The contract for the construction of 4½ miles of 8-in., 10-in., and 12-in. vitrified tile pipe sewer, and a sewage disposal plant has been awarded to M. TSCHIRIGI & SONS, Cedar Rapids. Noted Oct. 8, Nov. 12, Jan. 21 and Mar. 25.

✚Sioux City, Iowa—The contract for the construction of the Geneva St. sewer system has been awarded to F. T. LEEDER.

Tripoli, Iowa—Bids will be received until Apr. 30 by H. W. Bockhams, City Clk., for the construction of a sewer system. The estimated cost is $35,00. Noted Mar. 11.

Waterloo, Iowa—The city contemplates constructing a sewer system.

✚Eveleth, Minn.—The contract for constructing 1062 ft. of 24-in. pipe, 270 ft. of 18-in. pipe, 535 ft. of 15-in. pipe, 630 ft. of 12-in. pipe, 1525 ft. of 36-in. segment block sewers, manholes and catch basins in Garfield and Pierce St. and Cleveland and Adams Ave. has been awarded to the LAWRENCE-McCANN CO., at $15,488.

St. Paul, Minn.—The city contemplates the construction of a storm sewer in Sixth St. Estimated cost, $17,000. Oscar Claussen is City Engr.

St. Paul, Minn.—The State Senate Finance Committee has appropriated $30,000 for State Aid in the construction of a sewer system in North Hamline and the State Fair Grounds.

Chanute, Kan.—Plans are being prepared by Worley & Black, Engr., 301 Reliance Bldg., Kansas City, Mo., for the construction of a sewage-disposal plant. Estimated cost, $40,000.

Valley Falls, Kan.—The citizens have voted $45,000 in bonds for the construction of a sewer system.

Broken Bow, Neb.—The citizens defeated the question to issue $14,500 in bonds for the construction of a sanitary sewer system. H. E. Thompson is City Clk. Noted Mar. 25.

✚Ravenna, Neb.—(Official)—The contract for the construction of a sewer system has been awarded to the ARTHUR DOBSON CO., Lincoln, at $20,000.

Sioux Falls, S. D.—Bids will be received until 9 a.m., Apr. 26, by the Board of Commissioners for the construction of a sewer in 21st St. from Phillips to Minnesota Ave.

Belgrade, Mont.—The Town Council has decided to postpone the construction of the proposed sewer system for about two years. Noted Mar. 25 and Apr. 1.

✚Butte, Mont.—(Official)—Bids were received Mar. 15 by John C. Driscoll, City Clk., for the construction of a sewer system for the South Side as follows: ROBERT METCALF, 1429 Warren Ave., $88,467 (awarded contract); F. G. Dunn, $93,963; Kennedy Construction Co., $95,974; R. M. Bardsen & Co., $105,419; C. L. De Vall, $106,090; Linstrom & Oren, $107,244; George W. Kemper, $108,306; Atlas Construction Co., $110,946; J. Kelley, $115,343; Stamson & Hexam, $116,819; J. C. Maguire, $116,909; Haggart Construction Co., $117,035; G. H. Nash & Co., $119,359; Idaho Hardware & Plow Co., $119,718. W. J. Flood is City Engr. Noted Feb. 18.

Kansas City, Mo.—An election will be held May 25 to vote on the question of issuing $500,000 in bonds, the proceeds of which will be used for constructing sewers. Curtis Hill is City Engr.

Springfield, Mo.—At a recent election the citizens defeated the proposition to issue bonds for $50,000 for constructing one mile of main sewer and a septic tank.

Harrison, Ark.—Plans are being prepared by Albert C. Moore, Engr., Frisco Bldg., Joplin, Mo., for the construction of a sewer system. Noted Nov. 5 and Jan. 7.

Austin, Tex.—An election will soon be held to vote on the question of issuing $25,000 in bonds for constructing additions to the sewer system.

Beaumont, Tex.—An election will be held on May 20 to vote on the question of issuing $30,000 in bonds for the construction of a sewer system. C. L. Scherer is City Engr.

Brownwood, Tex.—The citizens have voted $8000 in bonds for the construction of a septic tank.

Houston Heights, Tex.—Bids will be received until 6 p.m., May 10, by the City Council for the construction of 1400 ft. of 84-in. and 600 ft. of 36-in. storm sewers with inlets and catch-basins.

Oak Cliff, Tex.—(Dallas post office)—Bids will soon be received by R. R. Nelms, City Comr., for constructing another unit of the Cedar Creek interceptor and overflow sewer, estimated to cost $16,000.

Texarkana, Tex.—The city will issue bonds for $14,000, the proceeds to be used for improving the sewers in District No. 3. Noted Dec. 31.

Edgewater, Colo.—At a recent election the citizens defeated the question to issue $60,000 in bonds for the construction of a sewer system.

Hugo, Colo.—The city contemplates constructing a sanitary sewer system.

American Falls, Idaho—Bids will be received until May 7 by O. F. Crawley, Clk. of Sewer Com., for constructing 14,600 ft. of 8-in. vitrified pipe, 3000 ft. of ¾-in. w.-i. pipe, 4300 ft. of 12-in. vitrified pipe sewers, 18 concrete manholes and 30 concrete flush tanks.

+Salt Lake City, Utah—The City Commissioner has awarded the contract to RYBERY BROS., at $10,039, for the construction of a sewer in District No. 250.

Mesa, Ariz.—The Sewer Commission of the City Council has approved the plans prepared by John Sandberg & Co., Engr., Denver, Colo., for the construction of a sewer system. Estimated cost, $75,000. Harry L. Hancock is City Engr. Noted Apr. 1.

+Phoenix, Ariz.—The contract for the construction of a sewer system has been awarded to THOMAS M. FORSON, Kansas City, Kan., at $22,347.

+Phœnix, Ariz.—See item under "Federal Government."

+Enumclaw, Wash.—It is reported that the contracts have been awarded to DENNY RENTON CLAY & COAL CO., Hoge Bldg., Seattle, for sewer pipe and to the Pacific Sewer & WATERMAIN CONSTRUCTION CO., Tacoma, for ditch work, in connection with the sewer system, estimated to cost $25,000. Noted Mar. 18.

Spokane, Wash.—Bids were received by the City Council for the Sprague Ave. and Division St. section of the proposed sewer changes in connection with the Northern Pacific grade separation work as follows: P. L. Langan, $28,064; James C. Board, $41,965; Hurd & De Camp, $43,695, and J. Hoy & Co., $23,509. Morton Macartney is City Engr. Noted Apr. 1.

Klamath Falls, Ore.—Plans have been prepared by J. McLean, City Engr., for the construction of a sewer system. Estimated cost, $140,000.

Portland, Ore.—Bids will soon be received by A. L. Barbour, City Audr., for the construction of sewers. Plans have been prepared by the City Engineering Department. The estimated cost is $28,000.

+Huntington Beach, Calif.—The contract for the construction of the outfall section of the municipal sewer system and a septic tank has been awarded to the HELLAND CONSTRUCTION CO., San Diego, at $11,900. Noted Mar. 11 and Apr. 15.

+Long Beach, Calif.—The contract for furnishing the city with 1300 tons of c.-i. pipe for the construction of a municipal sewer system has been awarded to the U. S. CAST IRON PIPE & FOUNDRY CO., Burlington, N. J.

+Richmond, Calif.—The City Council has awarded the contract for the construction of lateral sewers to CHAMBERS & HEAFY, at $9726.

Montreal, Que.—It is reported that the city contemplates constructing sewers estimated to cost $900,000.

Hamilton, Ont.—Bids will be received until 5 p.m., Apr. 27, by M. Kent, City Clk., for equipping the Gage Ave. sewage pumping station. J. Macallum is City Engr.

Oakville, Ont.—The Town Council contemplates constructing sewers in various streets, estimated to cost $9910. W. E. M. Crawley is Clk.

Toronto, Ont.—Bids will be received until noon, Apr. 27, by T. L. Church, Chn. of Bd. of Control, City Hall, for the construction of sewers in Blackthorn, Hallawell, Osler, Prescott, and Sunnyside Ave.

Vancouver, B. C.—Bids will soon be received by the Board of Joint Sewerage Commissioners for the construction of the Clark Drive sewer from the high water mark to a point about 1500 ft. out into the inlet. A. D. Creer is Engr. Noted Dec. 10.

GARBAGE

+Schenectady, N. Y.—The contract has been awarded to M. F. DOLLARD, Albany, at $48,500, for the collection of garbage and ashes for five years.

+Coraopolis, Penn.—(Official)—The contract for a 10-ton Decarie incinerator, with forced-draft fan, ash-handling equipment has been awarded to the STACY-BATES CO., Minneapolis, Minn., at $10,600.

Philadelphia, Penn.—The only bid received Apr. 8 by the Department of Public Works for garbage disposal for 1916 was that of the Penn Reduction Co., at $363,588. Noted Apr. 8.

Huntington, W. Va.—The City Commissioners have received a proposition from the Macon Incinerator Mfg. Co., Macon, Ga., to install a plant. The city will build another incinerator in the eastern section of the city. Noted Mar. 18.

Beaumont, Tex.—An election will be held May 20 to vote on the question of issuing $5000 in bonds, the proceeds of which will be used for the construction of an incinerator.

Hillsboro, Tex.—Bonds for $5000 have been voted, the proceeds of which will be used for the construction of a crematory. A. Humphries is City Engr.

Toronto, Ont.—(Official)—In our issue of Apr. 1 it was stated that the Canadian Griscom Russell Co. was awarded contract for constructing three incinerating furnaces and Self Bros. was the next lowest bidder. The bid of Self Bros. was informal and the Universal Engineering Co., San Francisco, Calif., at $55,973 was the next lowest.

STREETS AND ROADS

Boston, Mass.—A bill for the appropriation of $2,000,000 for the construction of good roads has been recommended by the Governor and is being considered by the State Legislature.

+Boston, Mass.—The contract for the construction of 10,200 lin.ft. of state road in Duxbury, has been awarded by the Highway Commissioners to E. J. ROURKE, Abington, at $11,420. Other bids were: D. J. Sheehan, Lynn, $12,223; F. E. Ellis, Melrose, $13,972; Middlesex Contracting Co., North Adams, $19,319. Noted Apr. 1.

Boston, Mass.—Bids will be received until Apr. 26 by the Public Works Department for asphalt or bitulithic pavements, in Hopestill and Wellington Hill St., Dorchester District. L. K. Rourke is Comr.

+Boston, Mass.—Bids were received Apr. 13 for constructing (a) 3600 lin.ft. of road in Gardner, (b) 10,600 lin.ft. of road in Ashby as follows: ALCO CONTRACTING CO., Boston, (a) $6886, (b) $10,180 (awarded contract); R. F. HUDSON, Melrose, (a) $6506 (awarded contract); Sewell, Small & Ingalls, Bar Harbor, Maine, (a) $6746, (b) $11,770; B. Pompiani & Co., Quincy, (a) $6926, (b) $9825; B. F. Savage, Worcester, (a) $7056; C. E. Horne, Millbury, (a) $7306, (b) $11,905; J. J. Merco, Watertown, (a) $7594; F. E. Ellis, Melrose, (a) $7858, (b) $14,045; D. H. Dadmon, Ashby, (a) $10,845; E. R. Newell, Uxbridge, (b) $11,300; F. J. Mague, West Newton, (b) $12,260; C. A. Kelly, Somerville, (b) $12,860; W. J. Donovan, Fitchburg, (b) $13,147. Noted Apr. 8.

Boston, Mass.—Bids will be received until Apr. 22 by the Supply Department for 60,000 lin.ft. of edgestone, 9000 lin.ft. of circle stone and flagging. D. Frank Doherty, 808 City Hall Annex, is Supt.

Boston, Mass.—Bids will be received until Apr. 27 by the State Highway Commission for the construction of roads as follows: 8100 lin.ft. in Somerset and Swansea; 6200 lin.ft. in Rehoboth; 7400 lin.ft. in Somerset; 6100 lin.ft. in Dighton and Taunton; 8500 lin.ft. in Reading and 4700 lin.ft. in Beverly. Arthur W. Dean, 15 Ashburton Pl., is Ch. Engr.

+Hartford, Conn.—Contracts for state road work in Enfield Township and Greenwich have been awarded to A. D. BRIDGE'S SONS, Hazardville, at $8000 and $5500 respectively.

★Albany, N. Y.—(Official)—Bids will be received until 1 p.m., Apr. 29 by Edwin Duffey, State Highway Comr., 55 Lancaster St., for furnishing stone to the various counties.

+Albany, N. Y.—The contract for repaving Eagle St. from Elk to Myrtle St. has been awarded to PATRICK W. MULDERRY, at $52,387.

+Albany, N. Y.—The contract for repaving James St. from State to Columbia St. has been awarded to KENNY & DUMARY, at $9108.

★Albany, N. Y.—(Official)—Bids will be received until 1 p.m., May 5, by Edwin Duffey, State Highway Comr., for improving highways in various counties.

+★Albany, N. Y.—(Official)—Bids were received Apr. 14 by Edwin Duffey, State Highway Comr., and contracts awarded for road construction as follows:

Road No. 1229, Albany County, 2.30 miles—Amos D. Bridge's Sons, Inc., Hazardville, Conn., $25,332; John Arborio, New Haven, Conn., $24,016; Curran Corporation, Middletown, Conn., $25,675; S. B. Van Wagonen, Inc., Rondout, $25,273; JOHN W. FLYNN, Waterford, $23,668 (awarded contract); David H. Craw, Ravena, $25,404; Highway Engineering Co., Inc., Albany, $24,815.

Road No. 1246, Allegany County, 6.71 miles—John Johnson Construction Co., Buffalo, $101,914; Sullivan Construction Co., Syracuse, $101,814; James E. Martin, Utica, $101,845; GREENFIELD CONSTRUCTION CO., Hornell, $96,379 (awarded contract); Bison City Engineering & Contracting Co., Buffalo, $103,042; J. W. Brennan Construction Co., Inc., Geneva, $102,125; McNierney Construction Co., Canton, Penn., $102,128.

Road No. 1177, Essex County, 5.34 miles—Harold J. Shields, Albany, $53,251; Rumpf & Stevens, Lake Placid, $53,114; S. B. VAN WAGONEN, INC., Rondout, $52,042 (awarded contract); C. W. Tryon, Boyntonville, $55,985.

Road No. 1250, Franklin County, 5.50 miles—Fulton Engineering Co., Inc., Albany, $73,851; SPUYTEN-DUYVIL CONSTRUCTION CO., New York, $73,054 (awarded contract); Richard Hopkins, Troy, $75,611.

Road No. 1251, Franklin County, 4.91 miles—Flood & Van Wirt Co., Hudson Falls, $45,361; W. T. Thayer & Co., Chateaugay, $46,554; John F. Lewis, Albany, $42,542; Latour & Starks, Saranac Lake, $44,671; RUMPF & STEVENS, Lake Placid, $41,417 (awarded contract); William J. Morrissey, Saratoga, $42,713.

Road No. 1252, Franklin County, 11.41 miles—James E. Martin, Utica, $129,824; Weed & Walsh, Mechanicsville, $130,682; Richard Hopkins, Troy, $120,471; Busch & Percival, Buffalo, $118,930; Spuyten Duyvil Construction Co., New York, $104,999. Award withheld.

Road No. 5507, Monroe County, 2.14 miles—Michael H. Ripton, Rochester, $20,370; W. J. FOX, Oramel, N. Y., $18,978 (awarded contract); Ribstine-Holter Co., Inc., Rochester, $20,439; Schroeder-Hicks Contracting Co., Rochester, $20,198; Brooks & Julian, Rochester, $18,357; Greenfield Construction Co., Hornell, $19,649; P. H. Murray, Rochester, $19,309.

Road No. 1236, Monroe County, 1.87 miles—WHITMORE-RAUBER & VICINIUS, Rochester, $20,974 (awarded contract);

James Rossney, Buffalo, $21,631; Wood & Tompkins, Hilton, $22,098; John Johnson Construction Co., Buffalo, $21,603; Ribstine-Holter Co., Inc., Rochester, $21,161; Brooks & Julian, Rochester, $20,997; M. Bennett & Sons, Indiana, Penn., $21,804; George Holler, Albany, $21,271.

Road No. 1158, Oneida County, 2.65 miles—Conroy & Nixdorf, Oneida, $58,701; Spuyten-Duyvil Construction Co., New York, $59,038; C. W. Tryon, Boyntonville, $55,874; Bison City Engineering & Contracting Co., Inc., Buffalo, $58,459; Dale Engineering Co., Utica, $55,820; P. J. Kennedy, Utica, $58,553; A. J. Rockwood, Rochester, $55,678; Monroe Roads Co., Pittsford, $57,859; GREENFIELD CONSTRUCTION CO., Hornell, $51,530 (awarded contract).

Road No. 1243, Oswego County, 5.41 miles—Thomas Grady, Rochester, $44,178; Bison City Engineering & Contracting Co., Inc., Buffalo, $45,869; HARRADINE BROS. CO., INC., Spencerport, $42,454 (awarded contract); Pathfinder Construction Co., Inc., Fulton, $44,940; Michael Murphy, Rochester, $43,693; Semper Bros., Watertown, $45,084; P. H. Murray, Rochester, $45,092.

Road No. 1244, Oswego County, 5.22 miles—Monroe Roads Co., Pittsford, $47,853; Sale Engineering Co., Utica, $48,966; Greece Construction Co., Rochester, $49,627; VALLEY CONSTRUCTION CO., Sidney, $45,069 (awarded contract); James E. Martin, Utica, $49,331; Pathfinder Construction Co., Inc., Fulton, $45,141; I. B. Contracting Corporation, New York, $49,631.

Road No. 1245, Oswego County, 3.66 miles—DeBarber & Hill, Fulton, $30,891; Pathfinder Construction Co., Inc., Fulton, $29,559; Monroe Roads Co., Pittsford, $30,358; Thomas Grady, Rochester, $30,579; J. A. Jova, Inc., Newburgh, $31,108; Fulton Engineering Co., Inc., Albany, $30,600; J. A. CULKIN, Oswego, $29,452 (awarded contract); Greece Construction Co., Rochester, $30,969.

Road No. 5535, St. Lawrence Co., 6.66 miles—W. T. Thayer Co., Chateaugay, $68,461; P. J. Kennedy, Utica, $71,344; Ross-Hallenbeck Construction Co., Copenhagen, $67,786; Weed & Walsh, Mechanicsville, $72,299; Monroe Roads Co., Pittsford, $69,853; T. H. GILL CO., Binghamton, $65,818 (awarded contract); A. J. Rockwood, Rochester, $70,729; Eggleston & Garthwaite, Yonkers, $69,480; Thomas O'Brien, Watertown, $73,353; Spuyten-Duyvil Construction Co., New York, $75,027; Burns Bros. & Haley, Watertown, $79,759; Semper Bros., Watertown, $69,620.

Road No. 5410, Wyoming County, 3.88 miles—Morrison & Quinn, Inc., Rochester, $41,310; JOHN JOHNSON CONSTRUCTION CO., Buffalo, $40,083 (awarded contract); James Rossney, Buffalo, $41,382; George Holler, Albany, $42,186; Wood & Tompkins, Hilton, $43,714; M. Bennett & Sons, Indiana, Penn., $41,618; Thomas F. Murray, LeRoy, $41,386; Bison City Engineering & Contracting Co., Buffalo, $41,676; Ribstine-Holter Co., Inc., Rochester, $41,978. Noted Mar. 25.

★**Albany, N. Y.**—(Official)—Bids will be received until 1 p.m., May 11, by Edwin Duffey, State Highway Comr., for repairing highways in various counties.

✚**Buffalo, N. Y.**—The Board of Public Works has awarded the contract for paving Robinson St. and Runbold Ave. to LOUIS H. GIPP, Buffalo, at $39,189.

Buffalo, N. Y.—The Board of Aldermen has ordered the paving of Larkin St. with stone, and the repaving of Illinois and South Cedar St.

✚**Buffalo, N. Y.**—The Commissioner of Public Works has awarded the contract to the GERMAN ROCK, ASPHALT & CEMENT CO., LTD., for paving Winchester Ave. with asphalt.

✚**New York, N. Y.**—(Borough of Bronx)—(Official)—The contract for 200,000 gal. asphalt road oil has been awarded to the WARNER QUINLAN CO., 79 Wall St., at .032c. per gal. Noted Mar. 25.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received by Douglas Mathewson, Borough Pres., until 10:30 a.m., Apr. 29, for repairing asphalt block pavement and setting curbs; also for furnishing and delivering 175 tons of asphaltic cement.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., Apr. 28, by L. H. Pounds, Borough Pres., for furnishing and delivering 2200 cu.yd. of sand, where required in the Borough.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Apr. 14 by the Borough President for improving 18th St. from 11th Ave. to Vanderbilt St. as follows: M. F. Hickey, $10,583; Charles A. Myers Contracting Co., $10,987; M. J. O'Hara, $11,128; Norton & Gorman, $11,121; W. J. Scanlon Co., $10,963; Ulrich & Co., $10,679; Rosenthal Engineering & Contracting Co., $11,189. Noted Apr. 8.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Apr. 14 for improving Front St. from Fulton to Adams St. as follows: Charles A. Myers Contracting Co., $8599; Ulrich & Co., $9261; Rosenthal Engineering & Contracting Co., $9609; W. J. Scanlon, $8895; M. F. O'Hara, $10,029; Norton & Gorman, $8909. Noted Apr. 8.

New York, N. Y.—(Borough of Manhattan)—Press reports state that the city contemplates paving Dutch St. from John to Fulton St., 15th St. from Ave. A to Third Ave., 32nd St. from Second to Third Ave., 40th St. from Second to Lexington Ave. and 176th St. from Audubon to St. Nicholas Ave. with sheet asphalt; also for paving Houston St. from Lafayette to Crosby St., 30th St. from Ninth to Tenth Ave., 32nd. St. from First to Second Ave., 38th St. from First to Second Ave., and 40th St. from First to Second Ave. with granite.

✚★**Oswego, N. Y.**—Contracts have been awarded for constructing approximately 4000 sq.yd. of vitrified brick pavement to J. A. CALKIN, Oswego, at $13,458 and for resurfacing 8500 sq.yd. of old sheet asphalt pavement with vitrified brick to SAMUEL BONN, Syracuse, at $18,409. Noted Apr. 1.

Victor, N. Y.—The Village Council plans to pave Main St. with brick and macadam, at an estimated cost of $10,000.

✚**Buttzville, N. J.**—The contract for constructing the Great Meadows-Buttzville Rd. has been awarded to SMITH BROS., Hackettstown. Noted Feb. 4, Mar. 11, and Apr. 15.

Elizabeth, N. J.—Bids will be received until 2 p.m., Apr. 29, by the City Street Commissioner for flagging Essex and Middlesex Turnpike, North Ave.; and for constructing a sewer in Morris Ave.

Elizabeth, N. J.—Bids will be received until Apr. 26 by the county for grading, regulating and improving the Morris and Springfield Ave. Turnpike.

Harrison, N. J.—The Town Council plans to pave Fourth St. with granite block and Warren, Jersey, Hamilton, William and Cross St. with bitulithic. Peter J. Goodman is City Clk.

Jersey City, N. J.—Bids will be received by the Board of Commissioners until 2 p.m., Apr. 29, for repaving a portion of Clinton Ave. with wood block pavement and a portion of Tuers Ave. with asphalt block pavement. Michael I. Fagen is City Clk.

Jersey City, N. J.—Bids will soon be received by the City Commissioners for improving Gray St. from Mercer to Academy St.

Jersey City, N. J.—The Board of Commissioners plans to improve Ocean Ave. at an estimated cost of $25,000. The work will be under the supervision of the Department of Public Improvements.

✚**Newark, N. J.**—Contracts have been awarded for paving Margaretta St. from Amsterdam to Ave. L and Niagara St. from Berlin to Amsterdam St. to the GLENFIELD CONSTRUCTION CO., at $6089 and $7721 respectively. Noted Mar. 25.

New Brunswick, N. J.—Bids will be received until 2:30 p.m., May 3, by the Board of Chosen Freeholders of Middlesex County for the construction of a bituminous concrete pavement on the Metuchen-Perth Amboy Rd. from the Metuchen line to the Perth Amboy city line. Alvin B. Fox, Perth Amboy, is County Engr.

Newton, N. J.—The Town Committee will soon receive bids for the improvement of Spring St. from Madison Ave. to the railroad station, by paving with concrete.

Passaic, N. J.—Bids will be received about June 1 by the city for paving Albion St. Estimated cost, $5000. C. R. Wise, Passaic, is Engr.

Pennsylvania—Governor Brumbaugh has appointed Robert J. Cunningham, Pittsburgh, to succeed E. M. Bigelow as State Highway Commissioner. It has been determined that special attention shall be paid to road improvements in Pennsylvania, and the appropriation for this work during 1915 and 1916 will be in excess of $8,500,000. Senator Sproul, Chn. of the Senate Finance Com., on Apr. 13 introduced a bill carrying a general appropriation for highway work in the next two years. The bill carries an appropriation of $8,500,000 and does not include the administration expenses of the department and of the Automobile Requisition Bureau, which will be provided for in the general appropriation bill. Of the amount carried by the bill, $6,000,000 is specifically appropriated for the maintenance and improvement of state highways under the act of 1911 and its amendments. This means that the entire state highway system, including those roads added to the original Sproul plan two years ago, will be retained as state highways. The sum of $500,000 is appropriated for the purchase or condemnation of turnpikes upon state highway routes, and $1,000,000 is set aside for the construction and maintenance of state aid highways, and the remaining $1,000,000 is to be devoted to the payment of a portion of the expense of the maintenance of township roads, as provided by the Jones bill. Representative Jones has introduced a separate bill making provision for the payment of deficiencies due by the state to townships under operation of this law. Governor Brumbaugh says that the highway department activities will be carried on under his personal supervision and that he will immediately, upon the assumption of his office by Mr. Cunningham, organize a "roads council," to consist of himself, Commissioner Cunningham and Chief Engineer William S. Uhler. This council will hold frequent regular meetings at which every detail of the work will be discussed, together with appointments to be made and the efficiency of the department.

Catasauqua, Penn.—The City Council has decided to pave Pine, Walnut. Front and Second St. Charles Frederick is Chn. of the Street Com.

Oil City, Penn.—(Official)—Bids will be received until May 3 by the City Council for paving parts of four streets involving approximately 8400 sq.yd. of brick paving and 1600 sq.yd. of brick or wood block. B. B. Weber is City Engr.

★**Reading, Penn.**—(Official)—Bids will be received until 11 a.m., Apr. 30, by Edmund B. Ulrich, City Engr., for street paving and appurtenances.

Baltimore, Md.—Bids will be received until Apr. 27 by the State Roads Commissioners, Garrett Bldg., Baltimore, for the construction of 2.36 miles of state highway, under Contract BC-12, Baltimore City, 1.13 miles sheet asphalt, brick gutters, on Park Heights Ave; also for 23,000 cu.yd. excavation, fill for north approach to Hanover St. bridge, under Contract BC-17, Section 9. Four miles of concrete on section through Chesapeake City, under Contract Cc-14A, Cecil County. About .83 miles concrete or amiesite on section through Centerville, under Contract Q-11, Queen Anne's County.

✚**Towson, Md.**—Contracts has been awarded by the Baltimore County Commissioners, for the improvement of Belvidere Ave. from Parks Heights Ave. to Reisterstown Rd., to P. FLANIGAN & SONS, 120 East Lexington St., Baltimore, at $7140; also to THOMAS B. GATCH & SON, Belair Rd., Raspeburg, at $6128, for the improvement of Old Court Rd., consisting of one mile of macadam.

Clifton Forge, Va.—Press reports state that the city contemplates an expenditure of $10,000 for improving streets.

Huntington, W. Va.—An election will be held May 22, to vote on the question of issuing $600,000 in bonds, the proceeds to be used for constructing roads in Cabell County. Noted Feb. 18 and Apr. 8.

North Carolina—The Legislature of this year created a State Highway Commission, which has been organized as follows: Gov. Locke Craig, Chn.; Dr. Joseph Hyde Pratt, Secy.; Prof. T. F. Hickerson, Prof. W. C. Riddick, and Guy V. Roberts. This Commission has elected W. S. Fallis State Engineer. A report has been compiled dated Apr. 15, showing the road funds. Total amount of bonds issued by counties and townships in North Carolina to Jan. 1, 1915, $8,376,000; amount voted during 1913, sold and used during 1914, $2,000,000;

amount of bonds voted during 1914 and used during 1914, $500,000; estimated amount of bonds voted during 1913 and 1914, to be used during 1915, $1,500,000; bonds voted since Jan. 1, 1915, which will probably be used during 1915, $865,000; special taxes for road purposes, $1,800,000; special taxes estimated for interest in sinking fund, $500,000; portion of special tax money used in road construction and maintenance, $1,200,000; and of this $500,000 will be used for construction and $700,000 for maintenance; the estimated value of labor tax, $800,000; approximate number of short-term convicts used by counties and townships, on an average, is 1700, while 140 state convicts are used on an average.

✚**Ashboro, N. C.**—A contract for constructing a gravel road from County Home to High Point, about 18 miles, has been awarded to H. H. KENNEDY, Ashboro, at $10,000.

Bryson City, N. C.—Bonds for $100,000 were sold Apr. 10, the proceeds to be used for constructing roads in Swain Rd. District.

Union, S. C.—At the election held Apr. 6 the question of issuing $200,000 in bonds was defeated. Noted Feb. 25.

La Fayette, Ga.—The citizens of Walker County will soon vote on the question of issuing $50,000 in bonds for road construction.

✚**Clanton, Ala.**—A contract for constructing about 25 miles of road from Clanton to Maplesville has been awarded to W. H. WYNNE, Birmingham.

Russellton, Ala.—Bids will be received until May 10 by the Commissioners of Franklin County, Russellville, for constructing a highway from Russellton to Red Bay.

Tuscumbia, Ala.—The City Council plans to pave a number of blocks in the business section with sheet asphalt. The estimated cost is $35,000.

Lake Charles, La.—Bids will be received until 11 a.m., May 4, by E. C. House, Clk. of the Police Jury, for the construction of Highways Nos. 6, 8, 14 and 16, approximately 35 miles.

✚**New Orleans, La.**—(Official)—The contract for constructing about five miles of the Jean-Colfax Highway, Ward 3, La Salle Parish, has been awarded to J. N. GEORGE & SONS, Shreveport, at $9655. Other bids were: F. T. Constant, Alexandria, $10,205; J. E. Adams & Anderson, Jena, $10,045. Noted Mar. 18.

Knoxville, Tenn.—Bids will be received until May 8 by R. A. Brown for the sale of $500,000 in bonds, the proceeds to be used for building and repairing pike roads and bridges in Knox County.

★**Nashville, Tenn.**—(Official)—Bids will be received until 10 a.m., Apr. 29, by the Board of Commissioners for street paving. J. W. Dashiell is Secy. of the Bd. of Comrs.

Nashville, Tenn.—Press reports state that bonds for $430,000 have been sold, the proceeds of which will be used for improving streets.

✚**Caledonia, Ohio**—The contract for paving the public square with brick has been awarded to E. R. GRAVES, New London, at $5300.

Columbus, Ohio—Bids will be received until May 7 by the Commissioners of Franklin County for improving and macadamizing the Ridgeview Rd. and Reed Rd.

Columbus, Ohio—Bids will be received until May 5 by the Commissioners of Franklin County for improving Avery Rd. No. 2, Troesch Rd. and Kidner and Taylor Rd. John Scott is Clk. of the Comrs.

Columbus, Ohio—(Official)—Bids will be received until 2 p.m., Apr. 30, by Clinton Cowen, State Highway Comr., for road constructions as follows: Champaign County, Urbana-Sidney Rd., about 5280 lin.ft.; Defiance County, Hicksville-Defiance Rd., about 21,293 lin.ft.; Erie County, Milan-Elryia Rd., about 5280 lin.ft.; Fulton County, Wauseon-Morenci Rd., about 5533 lin.ft.; Greene County, 14,614 lin.ft.; Harrison County, Cadiz-Carrollton Rd., 8412 lin.ft.; Harrison County, Steubenville-Cambridge Rd., 2232 lin.ft.; Highland County, Milford-Hillsboro Rd., 13,178 lin.ft.; Knox County, Columbus-Wooster Rd., 10,800 lin.ft.; Medina County, Medina-Norwalk Rd., 6821 lin.ft.; Medina County, Ashland-Medina Rd., 11,040 lin.ft.; Monroe County, Caldwell-Woodsfield Rd., 6850 lin.ft.; Monroe County, Malaga-Alledonia Rd., 6154 lin.ft.; Paulding County, Paulding-Van Wert Rd., 10,646 lin.ft.; Paulding County, Paulding-Woodburn Rd., 10,354 lin.ft.; Perry County, Logan-New Lexington Rd., 8970 lin.ft.; Portage County, Akron-Youngstown Rd., 9142 lin.ft.; Portage County, Ravenna-Parkman Rd., 16,667 lin.ft.; Putnam County, Van Wert-Ottawa Rd., 10,411 lin.ft.; Richland County, Mansfield-Shelby Rd., 8100 lin.ft.; Richland County, Mansfield-Wooster Rd., 15,560 lin.ft.; Ross County, Chillicothe-Lancaster Rd., 5280 lin.ft.; Ross County, Columbus-Chillicothe Rd., 5280 lin.ft.; Stark County, Akron-Canton Rd., 8300 lin.ft.; Summit County, Akron-Cuyahoga Falls Rd., 2487 lin.ft.; Trumbull County, Warren-Sharon Rd., 12,237 lin.ft.; Trumbull County, Youngstown-Warren Rd., 9650 lin.ft.; also, for repairing the Oberlin-Norwalk Rd., Huron County, 6750 lin.ft., and the Youngstown-Conneaut Rd., Trumbull County, 973 lin.ft.

Lakewood, Ohio—Bids will be received until noon, May 17, by B. M. Cook, Dir. of Finance, for the sale of $100,000 in bonds, the proceeds to be used for paving various streets.

Paulding, Ohio—(Official)—Bids will be received until 2 p.m., Apr. 30, by Edward McGaharan, Audr. of Paulding County, for improving 21,224 lin.ft. of road. This road is known as the Burns Joint County Pike and runs through Paulding and Defiance Counties.

Plain City, Ohio—Bids will be received until Apr. 28 for paving Main St. E. L. Bechtel is Mayor.

Port Clinton, Ohio—(Official)—Bids will be received until 11 a.m., Apr. 26, by D. L. Mackey, Audr. of Ottawa County, for the construction of the Duff Rd.

Gary, Ind.—(Official)—Bids were received Apr. 12 for paving Jackson Ave. from 43d Ave. to 45th St. as follows: Gary Construction Co., $4244; W. F. Brunt, $5048 and $4751 (alternate bid); M. D. Heiny, $4876; W. A. Trinler, $4968; Ingwald Moe, $5251.

Indianapolis, Ind.—The Board of Public Works contemplates paving New York St. from Randolph St. to Tacoma Ave. The estimated cost is $26,632.

Ann Arbor, Mich.—(Official)—Bids will be received until May 5 by the Board of Public Works for laying 20,000 sq.yd. of tar concrete, reinforced-concrete, vitrified brick, asphaltic concrete or bitulithic pavement. Manley Osgood is City Engr.

Jackson, Mich.—(Official)—Bids will be received until 7 p.m., May 4, by the City Commissioners for repaving Main St. from Park Ave. to Jackson St., approximately 15,000 sq.yd., Seymour St. from Main to Ganson St., approximately 3600 sq.yd. A. W. D. Hall is City Engr.

Lansing, Mich.—Bonds for $37,500 have been issued, the proceeds of which will be used for paving streets.

Ypsilanti, Mich.—Bids will be received until 3 p.m., Apr. 28, by the City Clerk for paving Washington, Cross and Michigan St. with concrete.

✚**Bloomington, Ill.**—The contract for paving Hester, Vernon and Florence Ave. has been awarded to ROY L. WILLIAMS, at $14,781.

Brocton, Ill.—(Official)—All bids received Apr. 12 for road construction in Embarass Township were rejected. Noted Apr. 1.

✚**Watseka, Ill.**—(Official)—The contract for improving North Fourth, South Fourth and Jackson Ave. has been awarded to M. H. LEWIS, at $13,294.

Janesville, Wis.—Bids will be received about May 1 for paving a portion of Wisconsin St.

✚**Marinette, Wis.**—The contract for paving Carney Ave. with reinforced-concrete has been awarded to the MURPHY CONSTRUCTION CO., Manitowoc, Wis., at $16,342.

Bemidji, Minn.—Bids will be received until 3 p.m., Apr. 29, by J. L. George, Audr., Beltrami County, for constructing State Rural Highway No. 62.

Duluth, Minn.—The City Commission plans to pave West Seventh St. from O to G Ave.

Duluth, Minn.—The City Council plans to pave various streets. John Wilson is City Engr.

Manhattan, Kan.—Contracts have been awarded to WATTS & AMMERMAN, Concordia, at $49,501, for asphaltic concrete pavement and at $66,232 for brick pavement.

Neodesha, Kan.—(Official)—Bids will be received until 7:30 p.m., Apr. 23, by J. J. Carroll, City Clk., for improving streets.

Newton, Kan.—(Official)—Bids will be received until 10 a.m., Apr. 27, for 33,000 sq.yd. of brick, asphaltic concrete, tar concrete, bitulithic and rock asphalt pavement. F. E. Devlin is City Engr.

★**Fargo, N. D.**—(Official)—Bids were received Apr. 8 for paving as follows: (a) Broadway, (b) Second Ave., (c) Roberts St., (d) Sixth St., (e) Third St., (f) Roberts St.; S. Birch & Sons, (a) $29,463, (b) $8569, (c) $14,923, (d) $6053, (e) $47,865, (f) $26,679; James Kennedy, (a) $28,000, (b) $7880, (c) $13,773, (d) $5540, (e) $44,173, (f) $24,245; General Construction Co., (a) $31,610, (b) $8668, (c) $15,058, (d) $6212, (e) $48,400, (f) $33,530. Noted Mar. 25.

Kulm, N. D.—Bids will be received until 2 p.m., May 5, by the Board of City Councilmen for concrete sidewalks and crossings during 1915.

Dermott, Ark.—Bonds for $38,000 have been sold, the proceeds of which will be used for constructing concrete sidewalks, curbs and gutters.

Beaumont, Tex.—An election will be held May 20 to vote on the question of issuing $85,000 in bonds, the proceeds to be used for street pavements.

✚**Bryan, Tex.**—The City Council has awarded the contract for paving Main St. to C. L. BERNEY, Houston, at $21,411.

Cameron, Tex.—At an election held Apr. 8 the citizens voted in favor of issuing $15,000 in bonds, the proceeds of which will be used for street improvements.

Houston, Tex.—The Eureka Paving Co., Houston, at $150,916, was the lowest bidder for paving a portion of Main St. Noted Mar. 25.

Taylor, Tex.—At a recent election the citizens voted in favor of issuing $100,000 in bonds, the proceeds to be used for paving streets. Noted Feb. 25 and Mar. 4.

Lewiston, Idaho—The City Council contemplates paving Ninth St. at an estimated cost of $20,000.

Moscow, Idaho—The City Council plans to pave Polk St. The estimated cost of the work is $10,000.

Sandpoint, Idaho—The City Council plans to construct 22,000 sq.yd. of pavement at an estimated cost of $75,000.

Clifton, Ariz.—Press reports state that the contract will soon be awarded for the construction of a system of good roads in Greenlee County, bonds in the sum of $150,000 having been voted for the purpose. Noted Apr. 1.

Florence, Ariz.—A special election will be held May 1 on the question of issuing bonds for $150,000, the proceeds of which will be used for constructing and improving highways in Pinal County.

Tucson, Ariz.—An election will be held May 15 to vote on the question of issuing $150,000 in bonds, the proceeds of which will be used for constructing roads.

✚**Bellingham, Wash.**—The contract for paving Monroe St. with asphalt has been awarded to the INDEPENDENT ASPHALT PAVING CO., Seattle, at $17,038.

Chehalis, Wash.—(Official)—Bids were received Apr. 10 by the Commissioners of Lewis County for constructing 1½ miles of concrete road near Curtis, as follows: Jacobson Bade Co., Portland, $12,817; N. P. Willis, Hoquiam, $10,840; Miracle Concrete Co., Kalispell, $10,880; Jarvis & Garvey, Seattle, $10,973; Albers & Son, Chehalis, $10,138; H. C. Detering, Wildwood, $14,298; T. D. Bidwell, Portland, Ore., $9724; John S. Ward, Centralia, $12,324; Albert & James, Centralia, $13,965. Noted Apr. 8.

Ellensburg, Wash.—Bids will be received until May 3 by the Commissioners of Kittitas County for paving the Dollarway Rd., about 2½ miles.

+Ephrata, Wash.—(Official)—Bids were received Apr. 5 for constructing two miles of water-bound macadam highway No. 5 as follows: MOHR CONSTRUCTION CO., Waterville, $4890 (awarded contract); Mitchell-Martin, Spokane, $6467; Dahmen Bros., Burke, $5868; Wilson Bros. Construction Co., Spokane, $8459; Kazee & Preston, Ephrata, $5797. Noted Mar. 11.

+Everett, Wash.—The contract for improving Fulton St. has been awarded to J. B. SNYDER, 1901 Grand Ave., at $6243.

Olympia, Wash.—Bids will be received until 2 p.m., May 3, by William R. Roy, State Highway Comr., for road work as follows: Surfacing with crushed rock three miles Pacific Highway, from Kalama southerly in Cowlitz County; two miles of Pacific Highway, from Carrollton northerly to Cowlitz County; six miles of Pacific Highway from Blaine south in Whatcom County.

North Bend, Ore.—Bids will be received until Apr. 27 by the City Clerk for paving several streets in the business section. Bids will be received on gravel bitulithic, bituminous crushed rock, rock asphalt, sheet asphalt or asphaltic concrete base on 5-in. concrete base. The estimated cost is $16,000.

+Yamhill, Ore.—A contract for surfacing a road with concrete has been awarded to MONTAGUE O'REILLY CO., Portland, Ore., at $8752.

Los Angeles, Calif.—Bids will be received by the Board of Supervisors, until 2 p.m., Apr. 26, for county road improvement in Road District No. 34. The estimated cost is $45,874.

+Los Angeles, Calif.—The CALIFORNIA-ARIZONA CONSTRUCTION CO., 717 Brockman Bldg., has been awarded the contract at $62,671, for improving Western Ave. between Wilshire Blvd. and Washington St.

Riverside, Calif.—Bids will be received by Harry Cree, City Clk., until 5 p.m., Apr. 26, for improving a portion of Seventh St., from Comer to Kansas Ave. and for improving Fairmount Blvd.

Sacramento, Calif.—(Official)—Bids were received Apr. 5 by the State Highway Commission for constructing roads in various counties as follows: (a) Yolo County, Route 6, Section C, (b) Yuba County, Route 3, Section A, (c) Tulare County, Route 4, Section E1, (d) Tulare County, Route 4, Section E2, (e) Orange County, Route 2, Section A, (f) Yolo County, Route 6, Section A: Leffler & Norton, San Francisco, (a) $39,116, (b) $27,933, (f) $44,753; Petersen & Grier, San Francisco, (a) $27,485, (f) $48,115; Tieslau Bros., Berkeley, (a) $31,862, (f) $53,692; Bates, Borland & Ayer, Oakland, (a) $28,553, (f) $49,885; Highway Paving & Construction Co., San Francisco, (a) $32,678, (b) $20,696, (f) $49,709; James Fitzpatrick, Sacramento, (a) $32,165, (f) $42,749; F. Rolandi, San Francisco, (a) $35,249, (b) $27,002, (f) $68,316; L. F. Gerdetz, San Francisco, (a) $28,580, (c) $37,098, (d) $54,297, (f) $58,113; J. Lawrence, Broderick, (a) $24,205, (f) $60,259; E. E. Roddan & Son, Wheatland, (b) $19,986; Mackie & McLean, San Francisco, (c) $39,742, (d) $56,356; George S. Benson & Sons, Los Angeles, (c) $32,542, (d) $41,662; Hoffman & McLaren, Oakland, (c) $32,815, (d) $48,401, (e) $34,386; John D. Marsh, Bakersfield, (c) $41,902, (d) $60,952; Taylor & Berliner, Los Angeles, (c) $34,458, (d) $49,940; W. A. Kettlewell & Sons, Sanger, (c) $29,123, (d) $34,761; J. W. Calback, San Diego, (e) $52,684; James S. Hilend, Anaheim, (e) $36,234; R. H. McGray Co., Los Angeles, (e) $69,492; Robert Sherer, Los Angeles, (e) $34,715; Cahill Bros., Los Angeles, (e) $45,356; Kennedy & Williams, Los Angeles, (e) $48,915; C. L. Hyde Construction Co., San Diego, (e) $41,632; Mahoney Bros., Allison & Cole Construction Co., San Francisco, (e) $53,274; Richard Rathwell, Los Angeles, (e) $60,327; Brashear Burns Co., Los Angeles, (e) $31,633; Doran & Reed, San Diego, (e) $52,187; A. C. McLean Construction Co., San Francisco, (e) $41,240; P. H. Hoare, Hayward, (f) $56,490; T. M. Burns, Sacramento, (f) $51,110; M. Blumenkrantz, Stockton, (f) $44,885; C. H. & A. W. Gorrill, San Francisco, (f) $41,705; Commary Peterson Co., Inc., San Francisco, (f) $62,583; Palmer & McBryde, San Francisco, (f) $41,583; W. A. Hunt & Sons, Alameda, (f) $48,649. Noted Mar. 25.

Sanger, Calif.—The City Trustees have decided to grade, drain and pave a number of streets.

Montreal, Que.—The City Council has appropriated $1,352,363 for laying permanent street pavements, which with $447,867 carried over from last year, makes a total of $1,800,230. The greater part of the paving to be done will be of asphalt.

+Vancouver, B. C.—The contract for paving Marine Drive and other streets has been awarded to COTTON CO.; LTD., at approximately $175,000.

INDUSTRIAL WORKS

+Lubec, Maine—The American Can Co., 10th Ave. and 14th St., New York, N. Y., has awarded the contract for the construction of a three-story, 80x148-ft., reinforced-concrete factory to the H. P. CUMMINGS COAST CO., Ware, Mass. Noted Feb. 1.

Waterville, Maine—(Official)—F. H. Mason, Ch. Engr., Central Maine Power Co., states that the company will not build a storehouse on Lockwood St., as planned. Noted Apr. 15.

+Boston, Mass.—The contract for the construction of a six-story building at Commonwealth Ave. and St. Paul St. for the Youth's Companion Publishing Co. has been awarded to the W. F. KEARNS CO., Cambridgeport. Densmore & Le Clear prepared the plans.

Malden, Mass.—(Official)—The Malden Knitting Mills, 334 Eastern Ave., will construct a 60x160-ft. factory, mill construction, estimated to cost $35,000. E. R. Simpson, 176 Federal St., Boston, Mass., is Arch. Noted Feb. 15.

+New Bedford, Mass.—J. W. BISHOP CO., 109 Foster St., Worcester, Mass., has been awarded the contract for the construction of a 140x160-ft. brick mill and a 100x120-ft., three-story brick addition to the present storehouse. The contract involves $150,000.

+Fairfield, Conn.—The contract for the construction of a two-story brick and steel factory for Hanley & Harmon, 202 John St., Bridgeport, Conn., has been awarded to LEVERING & GARRIGUES, 552 West 23d St., New York, N. Y. The estimated cost is $100,000.

New Britain, Conn.—The Hart & Cooley Co. has obtained a permit and will build a two-story addition to its plant. The cost will be $15,000.

New Haven, Conn.—McClintock & Craig, Arch., Springfield, Mass., has prepared plans for the construction of a 60x100-ft., four-story, reinforced-concrete plant for the Kolynos Co., Bristol St. Noted Feb. 15.

+Unionville, Conn.—The American Writing Paper Co. has awarded the contract for the construction of two additions to its plant to P. J. KENNEDY, INC., Holyoke, Mass.

+Buffalo, N. Y.—The Curtis Aëroplane Co. has awarded the contract to the FERGUSON STEEL & IRON CO. for the construction of the 100x300-ft. second building of its plant at Churchill St. and the N. Y. C. R.R. It will cost $75,000.

+Hammondsport, N. Y.—The CORNING BUILDING CO., Corning, N. Y., has been awarded the contract for the construction of a two-story, 41x130-ft. machine shop for the Curtis Aëroplane Co.

Jamestown, N. Y.—J. P. Sheldon & Sons, Arch., Industrial Trust Bldg., Providence, R. I., has plans in progress for the construction of a plant for the Gurney Ball Bearing Co.

+New York, N. Y.—(Borough of Bronx)—JOHN MacADAM & CO., 29 West 34th St., has been awarded the contract for the construction of a two-story, 50x200-ft. brick garage at 966 Prospect Ave., for the Prospect Garage Co. Benjamin W. Levitan, 20 West 31st St., is Arch. The estimated cost is $50,000.

New York, N. Y.—(Borough of Brooklyn)—THOMAS DRYSDALE, 26 Court St., has been awarded the contract for the construction of an addition to the cold-storage warehouse at 62 Furnam St., for the National Cold Storage Co. H. P. Henschien, 431 South Dearborn St., Chicago, Ill., is Arch. The cost is estimated at [illegible],000.

+New York, N. Y.—(Borough of Brooklyn)—Frank S. Aliano, 4518 Sixth Ave., has awarded the contract for the construction of a two-story, 80x100-ft. factory at 44th St. and Third Ave. to CALENDO & CORDI, 6005 14th Ave. It will cost $15,000.

New York, N. Y.—(Borough of Brooklyn)—Bids will be received until Apr. 24 by Albert Ullrich, 367 Fulton St., for alterations to the four-story dairy, pasteurizing plant and office building of R. F. Stevens Co., Dean St. and Third Ave. George Sloughter is Pres. It will cost $120,000.

New York, N. Y.—(Borough of Brooklyn)—The American Machine & Foundry Co., 346 Carroll St., will construct a five-story, 100x700-ft. brick and reinforced-concrete factory and power house at 56th St. and First Ave., to cost $500,000. Francisco & Jacobus, 200 Fifth Ave., is Arch.

+New York, N. Y.—(Borough of Manhattan)—Burton Bros. & Co., 384 Broadway, has awarded the contract to the E. BROOKS CO., 3 West 39th St., for the construction of an 11-story building. Starrett & Van Vleck, Everett Bldg., is Arch.

New York, N. Y.—(Borough of Manhattan)—The following bids were received by the Harlem Hospital, 137th St. and Lenox Ave., for the construction of a machine room, coal vault and storage room: Moreland Operating Co., $13,350, B. Diamond, $13,729; N. B. Smyth, $14,575; P. F. Brennen, $14,925; C. L. Dooley, $14,767; W. Flanagan, $13,500; P. F. Kenny, $13,500; W. H. Egan, $13,996; E. D. Broderick, $12,856; M. J. Marshall, $13,700; G. Rohrer, $16,100; Andrews Building Co., 348 East 54th St., $12,666.

New York, N. Y.—(Borough of Queens)—Sheffield Farms-Slawson-Decker Co. will construct a two-story, 104x150-ft. brick stable and milk depot at the northwest corner of Webster and Seventh Ave., Long Island City, to cost $50,000.

New York, N. Y.—(Borough of Queens)—William De Muth & Co. will build a four-story, 104x126-ft. brick factory and garage on Park Ave., Richmond Hill, to cost $75,000.

Port Chester, N. Y.—The chemical laboratories of Wilfred Hall, recently destroyed by fire, will be rebuilt. The estimated cost is $40,000.

Yonkers, N. Y.—James A. Watson, Arch., 34 Warburton Ave., has completed plans and is receiving bids for the construction of a three-story addition to the cold-storage plant of H. Steinmetz on School St. It will cost $18,000.

North Tonowanda, N. Y.—The Tonawanda Power Co. will build an 80x120-ft. brick warehouse on Robinson St. to cost $20,000.

Syracuse, N. Y.—(Official)—The H. H. Franklin Mfg. Co. will build a three-story, 53x100-ft. reinforced-concrete and brick addition to its plant on Gifford and Magnolia St., to cost $65,000. Gordon Wright is Arch. Noted Apr. 15.

Hoboken, N. J.—The Interstate Shade Cloth Co. will construct a factory at Eighth and Madison St. Robert Wilson, New York, N. Y., is Pres.

+Jersey City, N. J.—(Official)—Colgate & Co. has awarded the contract to the TURNER CONSTRUCTION CO., 11 Broadway, New York, N. Y., for the construction of a 96x200-ft., eight-story, reinforced-concrete warehouse and manufacturing building at Greene and York St. Warren Davey is Arch.

Jersey City, N. J.—William A. Boggart, Arch., 298 Jackson Ave., has completed plans for the construction of a three-story, 38x100-ft. factory at Brooks and Center St. for Campanello & Favaro Co., 424 Second St., to cost $40,000.

+Newark, N. J.—The C. H. Stuart Co. has awarded the contract to the F. H. JOHNSON CONSTRUCTION CO. for the building of a two-story, 60x100-ft. factory with a 30x30-ft. wing. The estimated cost is $25,000.

+Monongahela, Penn.—The contract for the construction of the reinforced-concrete cold-storage plant for the Universal Ice & Cold Storage Co. has been awarded to E. ELFORD, Ruggery Bldg., Columbus, Ohio. Noted Dec. 24, 1914.

Philadelphia, Penn.—Charles Gans will build a 59x128-ft., two-story factory at Hancock St. and Columbia Ave., to cost $13,000.

Philadelphia, Penn.—The Millbourne Storage Co., 4950 Folsom St., will build a three-story, 117x127-ft. brick warehouse at 657 North 42nd St. J. C. Norton is Arch.

York, Penn.—The Standard Chain Co., Marion, Ind., will build a 78x400-ft. chain-forming department, a 176x320-ft. welding and shipping department and a 45x60-ft. office building, al lof brick and steel.

Roanoke, Va.—The Citizens' Crystal Ice Co. will build a 100x150-ft. storage warehouse and two smaller storage buildings.

+Asheville, N. C.—The French Broad Mfg. Co. has awarded the contract to T. C. THOMPSON & BROS., Birmingham, Ala., and Charlotte, N. C., for the construction of a two-story, 104x169-ft. mill and a 100x100-ft. reinforced-concrete warehouse. Lockwood, Greene & Co., Boston, Mass., is Arch.

Bainbridge, Ga.—The Elberta Crate Works, Marshallville, Ga., will build an additional factory at an estimated cost of $100,000.

+La Grange, Ga.—The Hillside Cotton Mills has awarded the contract to T. C. THOMPSON & BROS., Charlotte, N. C., for the construction of a three-story mill, 19 warehouses, an engine house, a boiler house and 122 cottages.

Birmingham, Ala.—The Birmingham Ice Factory Co. will build a brick and reinforced-concrete cold-storage plant at Ave. E and 23rd St. The estimated cost is $75,000. W. J. Rushton is Pres.

Woodward, Ala.—The Thomas A. Edison Co., Orange, N. J., will construct a benzol-absorbing plant at a cost of $60,000.

Gallatin, Tenn.—The Upper Cumberland Loose Leaf Tobacco Warehouse Co. has purchased a frontage on the L. & N. R.R. and will build a 98x200-ft. warehouse.

Mascot, Tenn.—The American Zinc Co. will build an addition to its plant to cost $75,000.

Newport, Ky.—A permit has been issued to the Newport Rolling Mill Co. to build a 180x600-ft. addition to its galvanizing plant. It will cost $40,000.

Cincinnati, Ohio—The R. K. Le Blond Co. has been granted a permit to construct an addition to its plant in the East End. It will cost $14,000.

Cleveland, Ohio—The Cleveland Metal Products Co., 1794 East 55th St., has secured a permit and will build an addition to its factory to cost $17,500. George S. Rider & Co., Century Bldg., is Arch.

+Cleveland, Ohio—The contract for the construction of a four-story addition to the plant of the Theurer Norton Provision Co., Stock Ave., has been awarded to the ANDREWS BROS. CONSTRUCTION CO., 130 B. & L. E. Bldg.

+Cleveland, Ohio—The American Shipbuilding Co., A. G. Smith, Gen. Mgr., 2107 Superior Ave., has awarded the contract to CROWELL-LUNDOFF-LITTLE CO., 1951 East 57th St., for the construction of a two-story, 100x200-ft. factory to cost $80,000, and a one-story, 120x320-ft. machine shop, to cost $100,000.

Columbus, Ohio—The Solar Metal Products Co., Chicago, Ill., has purchased a site at Third and Cleveland Ave., on which it will construct buildings to cost $50,000.

Columbus, Ohio—S. T. Budd Dairy Co., 1390 Wesley Ave., will build a dairy plant at Fourth St. and Fourth Ave. The estimated cost is $30,000. Reibel & Sons is Arch.

St. Bernard, Ohio—(Cincinnati post office)—The Globe Soap Co. will build a two-story, 100x200-ft. addition to its factory, to cost $40,000.

Toledo, Ohio—The Landers Bros. Co., Buckeye St., will construct a two-story factory on Buckingham St., to cost $35,000. W. S. Thurston is Arch.

Toledo, Ohio—W. S. Thurston, Arch., 905 Ohio Bldg., has prepared plans for an 80x196-ft., two-story factory to cost $50,000.

+Toledo, Ohio—The Libby Glass Co., Ash St., E. D. Libbey, Pres., has awarded the contract for the construction of a two-story, 60x140-ft. factory to SPEAR, MOYLAN & LASKEY, Sycamore and Water St. Dover & McGormley, 304 Nasby Bldg., is Arch. It will cost $55,000.

+Toledo, Ohio—SETTINS & KOPITKE, 6 Messenger Bldg., has been awarded the contract for the construction of a one-story, 34x60-ft. factory for Gordon Mather, Castle Blvd., estimated to cost $60,000. Mills, Rhines, Bellman & Nordorff, 1234 Ohio Bldg., is Arch.

+Toledo, Ohio—H. J. SPIEKER CO., 409 Michigan Ave., has been awarded the contract to construct a one-story, 56x330-ft. factory for the National Supply Co., 136 Huron St., estimated to cost $60,000. Mills, Rhines, Bellman & Nordorff is Arch.

Youngstown, Ohio—Joseph Bros. & Co., 1242 Harrison Ave., Cincinnati, Ohio, has secured a site on Cedar St. and will build a steel fabricating plant, at an estimated cost of $200,000. Maurice Joseph is Vice-Pres.

Bloomington, Ind.—The Nurre Mirror Plate Mfg. Co. has had plans prepared for the construction of an addition to its plant to cost $50,000. J. N. Nurre is Pres.

Detroit, Mich.—Several commission houses are behind a project to erect a cold-storage plant on Fort St., which will cost $600,000. F. J. Rogers, of the Board of Commerce, is interested.

+Detroit, Mich.—The Remy Electric Co., 1005 Woodward Ave., has awarded the contract for the construction of a two-story, 60x150-ft. factory to A. A. ALBRECHT & CO., 820 Penobscott Bldg. It will cost $100,000. Smith, Huchman & Frylls is Arch. Noted Jan. 21.

Detroit, Mich.—Albert Kohn & E. Wilby, Arch., Trussed Concrete Bldg., has prepared plans for a three-story, 80x400-ft. factory for the Packard Motor Car Co., Grand Blvd. and Belt Line R.R. The estimated cost will be $100,000.

Duluth, Minn.—The Expansion Bolt Co. plans the construction of a factory at 40th Ave. and the North Pacific R.R., to cost $10,000. W. A. Anton is Secy.

Minneapolis, Minn.—The Wheeling Corrugating Co., Wheeling, W. Va., plans the construction of a plant and distributing station at University and Washington Ave.

Minneapolis, Minn.—The Lathrop Kemp Ice Cream Co. will build a two-story brick factory at 7 Royalston Ave., to cost $30,000.

Minneapolis, Minn.—R. W. Munzer & Sons will build a four-story automobile sales building at 907 Hennepin Ave.

St. Cloud, Minn.—The milling plant of the George Tileston Co., which was destroyed by fire, will be rebuilt by the Northern Flour Mills Co., at an estimated cost of $60,000.

Jefferson City, Mo.—John P. Gordon, State Audr., announces that the prison building twine plant will be enlarged.

Dallas, Tex.—The Consumers' Ice Co. was incorporated with $40,000 to establish an ice and cold-storage plant.

+Ft. Worth, Tex.—B. F. DAVIS & C. M. DAVIS has been awarded the contract for the construction of a three-story, 50x142-ft. warehouse for the Ft. Worth Warehouse & Transfer Co., Dagett and South Calhound St. It will cost $30,000.

Pharr, Tex.—Henry M. Pharr, Berwick, La., plans to build an alfalfa feed mill and dryer, with 400 tons daily capacity. The estimated cost is $35,000.

Murray, Utah—Jones & Olsen has had plans prepared by N. Edward Liljenberg, Arch., for the construction of a planing mill to cost $30,000.

Silver City, Utah—The Knight-Christensen Mill will rebuild its plant which was partially destroyed by fire at a loss of $75,000.

Spokane, Wash.—Plans have been completed and bids will be received by W. P. Fuller & Co. for the construction of a warehouse to cost $75,000. P. C. Patterson is Mgr.

Spokane, Wash.—H. I. Somers Co. will build a manufacturing plant. W. B. Thos, Mgr., will have charge of the construction.

Tacoma, Wash.—The Tacoma Japanese Association, S. Shibagaki, Secy., plans the construction of a $40,000 knitting mill.

Avon, Calif.—The Associated Oil Co. will build two additional units to its refinery at a cost of $50,000.

Bakersfield, Calif.—The Independent Ice Co. will build a plant at 15th and N St., at an estimated cost of $40,000. E. S. Cole is Engr.

Los Banos, Calif.—M. A. Bettencourt is interested in a plan to construct a creamery at a cost of $40,000.

+San Francisco, Calif.—The Seattle Brewing & Malting Co. has awarded the contract for the construction of a brewery on Bryant St. to the SOUND CONSTRUCTION CO., at $538,913.

London, Ont.—P. A. Seeker, Marine City, Mich., has purchased a three-acre site and will build an automobile factory to cost $65,000.

FEDERAL GOVERNMENT WORK

A recent low bid was rejected because it was unaccompanied by a certified check. In the future, the office of the Supervising Architect will be most strict about certified checks.

Improvements—Post Office and Court House—Auburn, N. Y.—Bids will be received until 3 p.m., May 15, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for extensions and remodeling the plumbing in the post office and court house.

★Dredging—Buffalo, N. Y.—Bids were received Apr. 15 by Capt. L. V. Frazier, Buffalo, for dredging the Niagara River as follows: H. S. Kerbaugh, Inc., Buffalo, $44,100; Great Lakes Dredge & Dock Co., Buffalo, $41,475; Duluth Marine Contracting Co., Duluth, Minn., $39,900, and Arthur E. Breymann, Toledo, Ohio, $38,850 (recommended for award). Noted Mar. 18.

+Post Office—Plainfield, N. J.—The contract has been awarded to CHARLES GILPIN, Philadelphia, Penn., at $84,556, for constructing a post office at Plainfield. Noted Feb. 25 and Apr. 8.

Post Office—Smyrna, Del.—All bids received by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for constructing a post office at Smyrna have been rejected. Noted Feb. 8 and Apr. 1.

+Experiment Station—Pittsburgh, Penn.—Contracts have been awarded for constructing the experiment station for the Bureau of Mines to GEORGE B. WILLS, 103 Park Ave., New York, N. Y., at $287,540, for construction work and to C. A. RIFFLE, 421 Wood St., Pittsburgh, at $27,242, for excavation. Noted Mar. 18.

Building—Beltsville, Md.—Bids will be received until 2 p.m., Apr. 30, by D. F. Houston, Secy. U. S. Dept. of Agriculture, Washington, D. C., for constructing a two-story brick and concrete building at the U. S. experimental farm, Beltsville.

Dormitory—Washington, D. C.—Bids were received Apr. 10 by the Commissioner of Indian Affairs, Washington, D. C., for constructing three adobe buildings at the San Xavier Indian School, Ariz., as follows: W. D. Lovell, Minneapolis, Minn., $22,000; J. W. Tucker, 1201 East Pierce St., Phoenix, Ariz. $31,900; F. J. Odermatt & Co., Tuscon, Ariz., $34,701; Charles F. Odam, 716 East McKinley St., Phoenix, Ariz., $27,000 and Chute & Heller, 9 West Broadway, Tuscon, Ariz., $30,300.

Building—Washington, D. C.—Bids were received Apr. 16, by the Commissioners of the District of Columbia for the construction of a 16-room school, No. 175, located in square No. 3033, Warder St., N. W., as follows: W. E. Mooney, $145,962; Andrew Murray, $142,700; Irwin & Leighton, Philadelphia, Penn., $128,400; Richardson & Burgess, Inc., $135,569; King Lumber Co., Charlottesville, Va., $127,000; George A. Fuller Co., $126,500; Wells Bros., New York, N. Y., $120,000; Frank L. Wagner, $144,860; Connors Bros., Co., New York, N. Y., $148,390;

J. H. Pierce, Norfolk, Va., $124,200; Arthur Cowsill, $138,434; P. J. Gormley Co., $127,000. Above bidders of Washington, unless otherwise specified. Noted Apr. 8.

Building—Washington, D. C.—Bids were received Apr. 9 by the District Commissioners for constructing a residence at the Tuberculosis Hospital, Washington, as follows: Arthur L. Smith & Co., Washington, D. C., $7648; Henry B. Davis, Washington, D. C., $7900; S. A. Gaskins & Son, Washington, D. C., $7496; Michael A. Angelo, Washington, D. C., $7824; A. M. Poynton, Washington, D. C., $8250 (bid not signed); Skinker & Garrett, Washington, D. C., $7777; Andrew Murray, Washington, D. C., $8675; Charles J. Cassidy & Co., Inc., Washington, D. C., $8833, and William E. Mooney, Washington, D. C., $7199. Noted Apr. 8.

Grading—Washington, D. C.—Bids were received Apr. 13 for grading the west approach to the Q St. bridge as follows: George Hyman, $0.285; J. B. Latimer, $0.395, and William F. Cush, $0.28. All bidders are of Washington. Noted Apr. 8.

Heating System—Washington, D. C.—Bids will be received until 11 a.m., May 8, by H. R. Stanford, Ch. of Bureau of Yards and Docks, Washington, D. C., for a steam and hot water distributing system, gas and cold water pipe and a hot water heater at the U. S. Naval Hospital Reservation, Washington.

★Lanterns—Washington, D. C.—Bids will be received until noon, May 18, by the Chief, U. S. Weather Bureau, Dept. of Agriculture, Washington, D. C., for storm-warning lanterns, f.o.b., factory.

Building—Radio, Va.—Bids were received Apr. 17 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for constructing an office building at the Radio Station as follows: Skinker & Garrett, 1413 H St., $16,969; W. E. Mooney, Evans Bldg., $16,966; James L. Marshall, 700 Tenth St., $17,000; William P. Lipscomb & Co., 1405 F St., $18,383; Henry B. Davis, 813 14th St., $19,593; William H. Egan, 147 East 121st St., New York, $21,999; Richardson & Burgess, Inc., 1413 H St., $17,330; Michael A. Weller, 629 F St., $18,149; W. H. McCray, Bond Bldg., $18,165; Darby & Pettit, 3009 O St., $20,000; John H. Noland Construction Co., Munsey Bldg., $18,243. All of Washington, unless otherwise specified. Noted Feb. 25 and Apr. 8.

Building and Alterations—Pensacola, Fla.—Bids will be received until 11 a.m., May 1, by H. R. Stanford, Ch. of Bureau of Yards and Docks, Washington, D. C., for toilet building and alterations in buildings Nos. 16, 18 and 34 at the Navy Aëronautic station.

Macadam Road—Pensacola, Fla.—Bids will be received until 11 a.m., May 1, by H. R. Stanford, Ch. of Bureau, Yards and Docks, Navy Dept., Washington, D. C., for constructing a macadam road at the navy yard, Pensacola.

✚★Steel Gates—Nashville, Tenn.—Bids were received Apr. 12 by Maj. H. Burgess, Nashville, for constructing and erecting steel gates for locks B and C, Cumberland River, as follows: PENNSYLVANIA BRIDGE CO., Beaver Falls, Penn., $23,540 (awarded contract); Lupfer & Remick, 594 Ellicott Sq., Buffalo, N. Y., $25,800; Union Foundry & Machine Co., West Carson St., Pittsburgh, Penn., $27,705; Chicago Bridge & Iron Co., 105th and Troop St., Chicago, Ill., $30,600; L. D. Weaning, c/o Variety Iron & Steel Co., Cleveland, Ohio, $59,820; The Alliance Structural Co., Alliance, Ohio, $27,200; The Whitehead & Kales Iron Works, Detroit, Mich., $26,070; Foster & Creighton Co., Nashville, $27,200; Milwaukee Bridge Co., Milwaukee, Wis., $225,494; Louisville Bridge & Iron Co., Louisville, Ky., $24,290; Nashville Bridge Co., Nashville, $31,700, and the Independent Bridge Co., Pittsburgh, Penn., $25,258. Noted Mar. 18.

★Breakwater—Marble Head, Ohio—Bids will be received until 2 p.m., by Capt. E. P. Bertholf, U. S. Coast Guard, Washington, D. C., for constructing a rubble mound breakwater at the Marblehead Coast Guard station, Marblehead, Ohio.

Post Office—La Salle, Ill.—Bids will be received until 3 p.m., May 26, by Oscar Wenderoth, Superv. Arch., Treasury Dept., Washington, D. C., for the construction complete of the U. S. post office at La Salle.

Remodeling Post Office—Des Moines, Iowa—All bids received Mar. 23 for remodeling the U. S. post office and court house at Des Moines have been rejected. Noted Feb. 18 and Apr. 1.

★Dipper Dredge—Duluth, Minn.—Bids were received Mar. 26 by Maj. E. D. Feek, Duluth, for (a) contractor's own design, afloat, dredge, Col. D. D. Gaillard, (b) specified dredge, (c) contractor's own design, Duluth, (d) specified dredge, afloat, Lake Superior, as follows: Marion Steam Shovel Co., Marion, Ohio, (a) $107,050, (b) $110,050, (c) $107,050, (d) $110,050; Bucyrus Co., South Milwaukee, Wis., (b) $136,075, (c) $135,225; Dubuque Boat & Boiler Works, Dubuque, Iowa, (c) $118,693; Hartmann-Greiling Co., Green Bay, Wis., (a) $87,400, (b) $104,823 (recommended for acceptance), (c) $87,823, (d) $104,400 (recommended for acceptance); and National Iron Co., Duluth, Minn., (a) $146,759, (d) $146,759. Noted Feb. 25.

Post Office and Court House—Chillicothe, Mo.—Bids will be received until 3 p.m., June 3, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for constructing complete (including mechanical equipment and approaches) of the U. S. Post Office and Court House at Chillicothe.

✚Sewer System—Phoenix, Ariz.—The contract has been awarded to THOMAS M. TORSON, Kansas City, Mo., at $22,347, for constructing a sewer system at the Phoenix Indian School and Sanitorium. Noted Mar. 4.

Dormitory—Cherokee, Okla.—Bids will be received until 2 p.m., May 5, by Cato Sells, Comr. of Indian Affairs, Washington, D. C., for constructing a dormitory at the Cherokee School, Cherokee, Okla.

★Canal Work—Payson City, Utah—Bids will be received until 2 p.m., May 19, by the U. S. Reclamation Service, Provo, Utah, for about 30,000 yd. of canal excavation and 3400 yd. of reinforced concrete.

Bridge—Ashford, Wash.—Bids will be received until 2 p.m., May 4, by Mark Daniels, Gen. Supt. of National Parks, Monadnock Bldg., San Francisco, Calif., for constructing a reinforced-concrete bridge over Tahoma Creek in the Mount Ranier National Park.

Stone—Lone Tree, Wash.—Bids will be received until noon, Apr. 28, by Lieut.-Col. J. B. Cavanaugh, Burke Bldg., Seattle, Wash., for furnishing stone for jetty construction at Lone Tree, Gary's Harbor.

Light Station—Cape St. Elias, Alaska—Plans are under way for the construction of a light station for Cape St. Elias, Alaska.

MISCELLANEOUS

Wharves—Portland, Maine—According to press reports, the Sebago Ice Co. and the Portland Products Co. have been granted permission by the Harbor Commissioners to extend their present wharves and construct new ones.

Dredging—Boston, Mass.—The following are the bids received for dredging about 26,000 cu.yd. in Deacon's Pond Harbor, Falmouth: Eastern Dredging Co., (a) 26¾c. per cu.yd. for ordinary dredging, (b) $9.50 per cu.yd. for rock; John R. Burke, (a) 32.7c., (b) $10; J. S. Packard Dredging Co., (a) 33.9c., (b) $8. William F. Williams is Ch. Engr. Noted Apr. 8.

Terminal—Fall River, Mass.—The Ways and Means Committee of the Legislature is considering a bill appropriating $350,000 for terminal work. William H. Hart is Secy., Chamber of Commerce.

✚Seawall—Scituate, Mass.—The contract for constructing a concrete seawall between the first and second cliffs at Scituate has been awarded to LOSI & WILLIAMS, at $5.24 per cu.yd. for cement and 85c. per lin.ft. for riprap. William F. Williams is Ch. Engr. Noted Apr. 1.

Fire Station—Pawtucket, R. I.—The city will construct a fire station on Hope St. Charles H. Learned is Arch. Giles W. Esterbrook is Mayor.

Canal Improvements—Albany, N. Y.—A bill has been signed by the Governor appropriating $150,000 for repairing and improving mechanical and other structures connected with the state canals.

★Wharf—Dunkirk, N. Y.—(Official)—Bids will be received by A. D. Toomey, City Clk., until 8 p.m., May 18, for the construction of a public wharf.

Subway—New York, N. Y.—(Borough of Brooklyn)—(Official)—The following are the unofficial totals of the bids received by the Public Service Commission for the construction of Section No. 2 of Route No. 12, that part of the Eastern Parkway between Prospect Park Plaza and a point 635 ft. east of the center line of Nostrand Ave., including a spur curving southeasterly for connection with the Nostrand Ave. subway. The plans call for a subsurface railroad with four tracks, to be built largely on the double-deck plan. The bidders follow: Inter-Continental Construction Co., 26 Cortlandt St., New York, $2,734,000; H. P. Converse & Co., $2,810,000; Tidewater Building Co., $2,810,000; Newman & Carey, $2,812,000; Bayly Hopkins, $2,823,000; Charles Cooper, $2,854,000; Underpinning & Foundation Co., $2,938,000; Degnon Contracting Co., $3,049,000; T. A. Gillespie Co., $3,064,000; Norton & Gorman Contracting Co., $3,145,800; Oscar Daniels Co., $3,,347,000; Dock Contractor Co., $3,357,000; E. E. Smith Contracting Co., $3,359,000; Mason & Hanger, $3,408,000; Rodgers & Hagerty, Inc., $3,415,000; Arthur McMullen, $3,600,000; W. H. Gahagen, $3,710,000; John T. Green, $3,757,000; Smith, Hauser & MacIsaac, Inc., $3,860,000. Noted Apr. 1.

Motor Trucks—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by Robert Adamson, Fire Comr., Municipal Bldg., until 10:30 a.m., Apr. 27, for furnishing and delivering 12 motor driven city service hook and ladder trucks.

Markets—New York, N. Y.—According to press reports an announcement has been made by the New York State Department of Foods and Markets that four terminal markets will be built as follows: One by the Long Island R.R. Co. on Dutch Kills Canal and Newtown Creek, Long Island City; a second by the Bush Terminal Co. on its property in South Brooklyn; a third by the New York Central & Hudson River R.R. Co. at 34th St. and 11th Ave. and another in the Borough of the Bronx, by the New York, New Haven & Hartford R.R. Co.

Track Equipment—New York, N. Y.—(Borough of Manhattan)—(Official)—The following are the bids received for the equipment of the westerly tracks of the upper deck of the Manhattan Bridge: Cullen Chambre Construction Co., $186,816; Charles Meade & Co., $159,186; Snare & Triest Co., $171,685; Wilson & English Construction Co., $180,243; Simon Russick, $159,221; McHarg Barton, $204,393; N. E. Construction Co., $156,342; Lord Construction Co., $170,688; Vulcan Rail & Construction Co., 35 Meserole St. (Borough of Brooklyn), $148,393; T. Crimmins Contracting Co., $224,276. Noted Apr. 8.

★Fence—New York, N. Y.—(Official)—See item under "Water Supply-Irrigation."

✚Subway—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for the construction of Section No. 4 of Routes Nos. 4 and 36, that part of the subway lying in Seventh Ave. between 51st and 59th St., has been awarded to the LITCHFIELD CONSTRUCTION CO., 23 Flatbush Ave. (Borough of Brooklyn), at $1,937,509. Noted Apr. 1 and 15.

★Hardware—Syracuse, N. Y.—(Official)—Bids will be received by Hugh P. Baker, Dean, Lyman Hall, Syracuse University, until 2 p.m., Apr. 22, for furnishing hardware for the forestry building.

Park Improvements—Camden, N. J.—A bill has passed the City Council, appropriating $35,000 for park improvements. L. E. Farnham is City Engr.

★✚Boardwalk, Repairs and Beach Protection—Cape May, N. J.—The contract for constructing additional boardwalks, bulkheads and beach protection has been awarded to the ATLANTIC CONSTRUCTION CO., Atlantic City, at $55,489. Noted Mar. 18 and Apr. 1.

Pier Extension—Jersey City, N. J.—The Central R.R. of N. J. plans to extend its piers in Jersey City on the Hudson River and upper New York Bay. The estimated cost is $175,000.

Fire Station—Newark, N. J.—The Board of Chosen Freeholders has authorized a bond issue of $30,000 to be used for the construction of a fire station at Overbrook Hospital. Bids for the structure will soon be advertised.

✚Ditches—Rutherford, N. J.—The contract for excavating about 225,000 lin.ft. of ditches in Rutherford, East Rutherford, Union Township, North Arlington, has been awarded to the U. S. DRAINAGE & IRRIGATION CO., 17 Battery Pl., New York, N. Y., at $42,875.

★Rock Tunnel—Drums, Penn.—(Official)—Bids will be received by the Vice-President and General Manager, Lehigh Valley Coal Co., 133 North River St., Wilkes-Barre, Penn., for driving a rock tunnel, minimum cross-section to be 7x9 ft., with a ditch 3 ft. wide by 2 ft. deep; approximate length of tunnel, 19,500 ft. The south portal will be in the Buck Mountain vein gangway of Hazle Mines, and the north portal of the tunnel will be on the Little Nescopeck Creek, near the village of Drums.

Jetties—Trenton, N. J.—The Central R.R. of N. J. has received permission to construct jetties at Sea Bright and along the coast to Hollywood. It is proposed to build 34 jetties at $4000 each.

✚Wharf—New Orleans, La.—The Port Commissioners have awarded the contract for constructing the wharf at the Valence St. landing to DOULLUT & CO., at $194,600.

★Doors—New Orleans, La.—(Official)—Bids will be received by Ernest M. Loeb, Pres., Bd. of Comrs., New Orleans Court Bldg., until 8 p.m., Apr. 28, for furnishing and installing fire doors and steel rolling doors etc., for the cotton warehouses and terminal now under construction on the East Bank of the Mississippi River near Valence St.

Drainage—Plain Dealing, La.—Bids will be received by the Commissioners, North Bossier Levee District, until Apr. 21, for improving drainage in Posten and Phelps Lake, Bossier Parish. J. Perry is Secy. of the Comrs. F. B. Grevemberg, Jr., Continental Bank Bldg., Shreveport, La., is Engr.

✚Drainage—Dresden, Tenn.—(Official)—The contract has been awarded by the Commissioners of the Middle Fork and Spring Creek Drainage and Levee District No. 1 of Weakley County to R. H. & G. A. McWILLIAMS, Memphis, Tenn., for 676,000 cu.yd. of levee embankment and 543,000 cu.yd. of ditch excavation, at $122,059. The contractor purchased the bonds at par. The Morgan Engineering Co., Memphis, Tenn., is Engr. Noted Mar. 18.

Ditches—Dyersburg, Tenn.—(Official)—Bids will be received until May 14, by the Directors, Reeds Creek Drainage District, Dyer County, for the construction of about 15.4 miles of ditches, requiring the excavation of about 660,000 cu.yd. of earth. The Morgan Engineering Co., Memphis, Tenn., is Engr.

Drainage—Paducah, Ky.—The Department of Agriculture has commissioned F. F. Shafer, Louisville, Ky., to survey the Mayfield Creek Drainage District, for the purpose of submitting an estimate to the County Court, of the cost of draining the creek.

Elimination of Grade Crossing—Alliance, Ohio—(Official)—The following are the bids received by the Director of Public Service in connection with the construction of a reinforced-concrete subway under the tracks of the Pennsylvania R.R. at Arch St. This work includes principally water, sewer and road improvements: Portage Engineering Co., Akron, Ohio, (a) with two-ring brick sewer, $17,235, (b) with segment-block sewer, $17,082; F. A. Downs, Canton, Ohio, (a) $15,745, (b) $16,127; J. C. Devine, Alliance, (a) $20,619, (b) $20,466; J. B. Sheets Co., (a) $18,539, (b) $18,386; Central Ohio Construction Co., (a) $18,637, (b) $17,260; Laidlaw Bros. (a) $23,894, (b) $25,424; Adam Laidlaw & Co., (a) $27,278, (b) $26,885; Monongahela Construction Co., (a) $28,939, (b) $29,398; William McDowell & Son Co., (a) $19,586, (b) $19,280; Duquesne Contracting Co., (a) $28,521, (b) $27,297; P. T. McCourt, (a) $21,307, (b) $19,899; A. L. Anderson & Bros., (a) $26,361, (b) $27,891.

Bids received by the Pennsylvania R.R. in connection with this work, which provides only for excavation and concrete work, were as follows: J. C. Herndon, $9190; F. A. Downs Construction Co., $9200; J. B. Sheets Co., $9380; Jones Construction Co., $10,000; A. L. Anderson & Bros., $10,980; H. A. & R. L. Culbertson Co., $10,990; J. C. Devine Co., $11,100; Laidlaw Bros., $11,160; Adam Laidlaw & Co., $11,210; Robert Grace Contracting Co., $11,400; Pihl & Miller, $11,420; P. T. McCourt, $11,840; Ferguson & Edmondson Co., $13,000; Duquesne Contracting Co., $14,860; Rust Engineering Co., $15,390; Monongahela Construction Co., $15,980; C. H. Strong & Son, $21,500. Noted Mar. 25.

Park Improvements—Bratenahl, Ohio—(Cleveland post office)—Bids will be received until noon, May 1, by C. A. Neff, Clk., 219 East 105th St., for the sale of $60,000 in bonds, the proceeds to be used for park improvements.

Signalling System—Bratenahl, Ohio—(Cleveland post office)—Bids will be received until noon, May 1, by C. A. Neff, Clk., 219 East 105th St., for installing and constructing a combination police, telegraph and recall signalling system.

Dredging—Canton, Ohio—The City Council contemplates dredging East Creek. William E. Sarver is City Engr.

Park Improvements—Cleveland Heights, Ohio—(Cleveland post office)—A special election will be held May 17 for the purpose of voting $100,000 in bonds, the proceeds to be used for park improvement and construction work. H. H. Canfield is Clk.

Amusement Structure—Cleveland, Ohio—The Luna Park Amusement Co., Cleveland, will erect a $40,000 amusement structure. C. X. Zimerman is Asst. Mgr.

Pavilion—Cleveland, Ohio—Bids will be received by the Commissioner of Purchases and Supplies, City Hall, until noon, Apr. 28, for the construction of a pavilion in Rockefeller Park. Specifications may be obtained of F. H. Betz, City Arch., 420 City Hall.

✚Stadium—Cincinnati, Ohio—The contract for constructing the stadium at the Cincinnati University has been awarded to the FERRO CONCRETE CONSTRUCTION CO., Cincinnati. This includes the excavation, reinforced-concrete and brick work.

Dredging—Lorain, Ohio—The City Council has voted to spend $16,000 for dredging Black River.

Park Improvements—Zanesville, Ohio—The city will soon hold a special election for the purpose of voting on a bond issue of $26,500, the proceeds to be used for improving parks. John S. Dennis is City Engr.

Levee—Indianapolis, Ind.—Bids will be received by Joseph A. Rink, Pres., Bd. of Pub. Wks., until 10 am., Apr. 26, for constructing a of levee on the west side of the White River. B. J. T. Jeup is City Engr.

✚Dredging—Columbia City, Ind.—The contract for dredging Big Blue Creek Ditch has been awarded to CLYDE A. WALB, Lagrange, and C. J. NESS, Columbia City, at about $32,239.

Fire Apparatus—Terre Haute, Ind.—The city contemplates issuing $25,000 in bonds for the purchase of motor fire apparatus.

✚Ditch—Bloomington, Ill.—The contract for the construction of a drainage ditch in Empire and West Townships has been awarded to the FREDERICK M. CRANE CO., Omaha, Neb., at 0.874c. per cu.yd. The work involves about 142,149 cu.yd. of excavation.

✚Recreation Building—Chicago, Ill.—The contract for constructing a steel trestle and loading platform has been awarded to the KETLER-ELLIOTT CO., Chicago, at $20,700. The lowest bid for constructing the recreation building and shelter was from Paschon Bros., at $415,000. W. O. Johnson is Secy., Harbor and Subway Comn. Noted Apr. 8.

✚Ditch—Lincoln, Ill.—The contract for the construction of the third section of the 7½-mile drainage ditch in Union Drainage District No. 1 has been awarded to ALLAN T. RICE, Springfield, Ill.

✚Dredging—Milwaukee, Wis.—The contract for dredging rivers and canals has been awarded to ARTHUR H. VOGEL, 491 Canal St., Milwaukee, at 0.124c. per cu.yd. Percy Braman is Deputy Comr. of Pub. Wks.

Drainage—Clinton, Iowa—The County Board of Supervisors has voted to construct a drainage system, about 17 miles long. Estimated cost, $100,000.

✚Ditches—Nevada, Iowa—Contracts have been awarded by the County Board of Supervisors for constructing ditches, as follows: New Albany ditch No. 68 to SARGENT DITCHER CO., Fort Dodge, at $20,572; Indian Creek ditch No. 66 to HAWKEYE CONSTRUCTION CO., Webster City, at $5116 for tile, and H. L. BROWN, Maxwell, for laying same, at $1674.

★Concrete Dam and Bulkhead—Waverly, Iowa—(Official)—Bids will be received by H. R. Van Derveer, City Clk., until 5 p.m., Apr. 27, for the construction of a concrete dam and bulkhead across Cedar River at Waverly.

Ditch—St. James, Minn.—It is reported that bids will be received by J. C. Jensen, County Audr., until Apr. 30 for constructing Judicial Ditch No. 9 in Watonwan and Martin Counties.

Concrete Work—St. Paul, Minn.—Bids will be received until 10:30 a.m., Apr. 26, by August Hoenstein for concrete work on Harriet Island.

Subway—Kansas City, Mo.—An election will be held on May 25 for the purpose of issuing $15,000 in bonds for constructing a subway under the Robert Gillbain Rd. H. L. Yost is Mayor.

Ditch—New Madrid, Mo.—Bids will be received by Felix M. Robbins, Engr., Drainage Dist. No. 30, until Apr. 27 for the construction of a ditch in that district. J. L. Ransburgh is County Clk.

Drainage—Crawfordsville, Ark.—The Commissioners of Drainage District No. 3 have decided to issue $250,000 in bonds for drainage work. W. W. Swepston is Chn.

Wharves and Docks—Beaumont, Tex.—An election will be held on May 20 for the purpose of voting on the issue of $100,000 in bonds for the improvement and construction of wharves and docks.

Drainage—Richmond, Tex.—The State Attorney-General has approved of issuing $61,000 in bonds for Drainage District No. 1.

Pavillion and Bathhouses—Mineral Wells, Tex.—The Mineral Wells Water Co. has had plans prepared by H. L. Spicer, 1032 Stella St., Fort Worth, for the construction of drinking pavillion and bathhouses. The estimated cost is $11,000.

Ditch—Mt. Vernon, Wash.—The Commissioners of Skagit County are considering the establishment of a drainage district to provide for main open ditch 4 to 8 ft. wide, with wood flume outlet or spillway; lateral ditch to consist of 8-, 12- and 15-in. No. 2 vitrified clay sewer pipe and an open ditch 2 ft. wide.

Ferry Approach, Building—Seattle Wash.—Plans for a West Seattle ferry approach, waiting station and warehouse at the foot of Marion St. have been prepared. The approach will cost about $20,000 and the building about $30,000. Bids for both improvements will be received by the Seattle Port Commission. C. E. Remsberg is Secy.

Derrick and Hoist—Seattle, Wash.—Bids will be received by C. E. Remsberg, Secy., Port Comn., for furnishing a 100-ton leg derrick; also an electric hoist for the same.

Concrete Snow Sheds—Tye, Wash.—(Wellington post office)—Press reports state that the Great Northern R.R. will construct 1200 lin.ft. of concrete snow sheds between Tye and Embryo. About $250,000 has been appropriated for the work. P. H. McFadden, Seattle, is Asst. Engr.

Embankment—Portland, Ore.—Bids will be received until Apr. 26 by the Interstate Bridge Commission for constructing about 560,000 cu.yd. of embankment. This work is in connection with the construction of the Interstate bridge.

Lock Machinery, Etc.—Ottawa, Ont.—Bids will be received until May 5 by the Department of Railways and Canals, for furnishing lock machinery, fittings, valves, etc., for the Trent Canal.

✚Rock—Andrade, Calif.—The contract for delivering about 8000 cu.yd. of rock on the levee below Andrade has been awarded to E. F. SANGUINETTE, Yuma, Ariz.

+Market Improvement—New Westminster, B. C.—The contract for sinking piles and constructing decks in connection with the market on 10th St. has been awarded by the City Council to the DOMINION CONSTRUCTION CO., New Westminster, at $22,053.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

+Bangor, Maine—The OTTO NELSON CO., Bangor, has been awarded the contract for the construction of a bank building. Estimated cost, $40,000.

+Manchester, N. H.—The contract for the construction of a department store has been awarded to KENNEDY & PETERSON CONSTRUCTION CO., 7 Water St., Boston, Mass. Estimated cost, $200,000. Hutchins & French, 808 Amoskeag Bank Bldg., Manchester, is Arch.

+Manchester, N. H.—The J. H. MENDELL CO., Manchester, has been awarded the contract for the construction of a building for the Manchester Institute of Arts and Sciences. William G. Rantoul, 6 Beacon St., Boston, Mass., is Arch. The estimated cost is $175,000.

+Boston, Mass.—The contract for the construction of a seven-story building to be known as the Morgan Memorial on Shawmut Ave. has been awarded to WALTER A. WENTWORTH CO., 50 Exchange Pl., Boston. Estimated cost, $100,000.

+Boston, Mass.—The contract for the construction of a building on Neponset Ave., Dorchester District, for St. Ann's Church has been awarded to ARCHDEACON & SULLIVAN, 5 East Concord St., Boston. Estimated cost, $45,000.

+Brockton, Mass.—The contract for the construction of a school on Crescent St. has been awarded to HARRY C. BRIGGS, Brockton. Estimated cost, $78,000. Noted Nov. 5.

+Middletown, Mass.—The contract for the construction of a building for the Central National Bank has been awarded to C. O. STONE & SONS, Middletown. Estimated cost, $125,000.

Worcester, Mass.—Bids will be received until noon, May 3, by George C. Halcott, Supt. of Public Bldgs., Room 35, City Hall, for the construction of an addition to the North High School. Estimated cost, $190,000. Noted Oct. 29, Jan. 21 and Apr. 15.

+Amityville, N. Y.—The contract for the construction of a two-story, 45x103-ft. building for the Long Island Home has been awarded to E. W. HOWELL, George St., Babylon. Estimated cost, $40,000,

Binghamton, N. Y.—The St. John Evangelist Church, 265 Vestal Ave., will construct a building, to cost between $75,000 and $80,000. James B. Green is Pastor.

+Buffalo, N. Y.—JOHN LANNEN & SON, Prudential Bldg., Buffalo, has been awarded the contract for the construction of a three-story, 50x207-ft. club house at 500 Delaware Ave. for the Knights of Columbus. Estimated cost, $80,000. Noted Feb. 25.

+New Rochelle, N. Y.—The contract for the construction of additions to the hospital on Guion St. for the New Rochelle Hospital Association has been awarded to E. E. PAUL CO., 101 Park Ave., New York. Estimated cost, $45,000. Noted Dec. 3 and Mar. 11.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by M. A. Cantor, 373 Fulton St., for the construction of a four-story, 100x175-ft. loft building on Atlantic Ave. and Elton St. for Nass & Berg, 405 Van Sicklen Ave. Estimated cost, $50,000.

New York, N. Y.—(Borough of Brooklyn)—Glynne & Ward, Halsey St. and Knickerbocker Ave., plans to construct a one-story, 82x122-ft. motion picture theater at Robinson St. and Nostrand Ave. The estimated cost is $50,000.

+New York, N. Y.—(Borough of Brooklyn)—The contract for the construction of a three-story building at Bond and Wyckoff St. for Mrs. C. Zabriskie has been awarded to the WILLIAM L. CROW CONSTRUCTION CO., 103 Park Ave., New York. Estimated cost, $50,000.

New York, N. Y.—(Borough of Manhattan)—F. E. Townsend, Arch., 103 Park Ave., has prepared plans for the construction of a 12-story, 54x120-ft. store and office building at 278 Madison Ave., for Lilla B. Hyde, 437 Fifth Ave. Estimated cost, $285,000.

New York, N. Y.—(Borough of Manhattan)—Edward W. Browning, 110 West 40th St., plans to construct a 13-story fireproof hotel at 31 West 71st St. Estimated cost, $90,000. Robert T. Lyons, Inc., 110 West 40th St., is Arch.

New York, N. Y.—(Borough of Manhattan)—Bids are being received by Bertram S. Goodhue, Arch., 2 West 47th St., for the construction of a building at Lexington Ave. and 66th St. for the Church of St. Vincent de Ferrer. Estimated cost, $500,000.

New York, N. Y.—(Borough of Manhattan)—George & Edward Blum, Arch., 505 Fifth Ave., is preparing plans for the construction of a 12-story store and loft building at Fifth Ave. and 31st St. for Harry Falk and Joseph Falk, 3785 Broadway.

+New York, N. Y.—(Borough of Manhattan)—The contract for the construction of a 16-story, 105x116-ft. store and loft building at Broadway and 26th St. for the Estate of Frederick Ayer, 141 Milk St., Boston, Mass., has been awarded to CHARLES A. COWEN & CO., 1123 Broadway. Estimated cost, $800,000.

New York, N. Y.—(Borough of Manhattan)—Herman Lee Meader, Arch., 2 West 32d St., has prepared plans for the construction of a 12-story loft and office building at 138 West 32d St. for the Pennlane Realty Co. Joseph Brewster, 165 Broadway, is interested.

New York, N. Y.—(Borough of Manhattan)—Emery Roth, Arch., 405 Lexington Ave., is preparing plans for the construction of a 13-story, 40x80-ft. apartment house at West End Ave. and 89th St. for the 601 West End Ave. Co. Albert Saxe, 525 West End Ave., is Pres.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Schwartz & Gross, Arch., 347 Fifth Ave., for the construction of a 12-story store and loft building at 30th St. near Broadway for Moses Crystal, 37 East 28th St.

New York, N. Y.—(Borough of Queens)—The Bank of Long Island plans to construct a one-story building on the Queensboro Bridge Plaza between Jackson and Hunter Ave. Estimated cost, $50,000.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received by C. B. J. Snyder, Supt. Dept. of Education, Park Ave. and 59th St., Borough of Manhattan, until 11 a.m., Apr. 26, for the general construction of a school on Lindenwood Ave. and School St.

+Rochester, N. Y.—The contract for the construction of an eight-story building at Elm and Chestnut St., for the Fine Art Building Corporation, has been awarded to F. L. GREENO & CO., 33 Exchange St., Rochester. Estimated cost, $65,000.

White Plains, N. Y.—Plans are being prepared by Benjamin W. Morris, Arch., 101 Park Ave., New York, for the construction of an addition to the Westchester County Courthouse. The estimated cost is $1,000,000. Noted Dec. 17.

+Atlantic City, N. J.—Bids will soon be received for the construction of a seven-story addition to the Hotel Strand, Pennsylvania and Beach Ave. The estimated cost is $200,000. Lloyd Titus is Arch. The EASTERN STEEL CO., Pottsville, Penn., has been awarded the contract for 275 tons of steel. Noted Apr. 1.

Atlantic City, N. J.—(Official)—Bids will be received about June 1 by H. A. Stout, Arch., for the construction of the Brighton Ave. School. Estimated cost, $117,000. Noted Apr. 15,

Cliffside Park, N. J.—(Cliffside post office)—Bids will be received until 8:30 p.m., Apr. 28, by the Board of Elucation for the construction of a school. The estimated cost is $42,000. Noted Mar. 11.

Elizabeth, N. J.—C. Goodfrey Poggi, Arch., 2 Julian Pl., is preparing plans for the construction of a two-story school for the Board of Education. Estimated cost, $52,000. Walter B. Timms is Pres.

Jersey City, N. J.—St. Mary's Parish will construct a four-story, 95x147-ft. parochial school on Third St.

Jersey City, N. J.—The Board of Education plans to construct a school in the Greenville section of Jersey City.

Millville, N. J.—(Official)—Bids recently received for the construction of a $70,000 school have been rejected by the Board of Education. New bids were received Apr. 21 by Arnold H. Moses, Arch., 136 South Fourth St., Philadelphia, Penn. Noted July 30, Sept. 10 and Apr. 1.

+Montclair, N. J.—The contract for the construction of a one-story building at 493 Bloomfield Ave. for the Essex National Bank has been awarded to A. P. CLARK, 264 Claremont Ave., Montclair. Estimated cost, $45,000. Noted Mar. 18.

+Newark, N. J.—The contract for the construction of a one-story, 90x100-ft. motion picture theater on North Seventh near Orange St., for Edward W. McDonough, 207 Market St., has been awarded to the ESSEX CONSTRUCTION CO., 87 Academy St., Newark. Estimated cost, $60,000. Noted Feb. 18.

Newark, N. J.—The Public Service Newark Terminal R.R. Co. has made application to the Board of Public Utility Commissioners for permission to issue bonds for $5,000,000 and stock for $8,300,000, the proceeds to be used for the construction of its local terminal building with connecting tracks.

+New Brunswick, N. J.—JOHN LOWRY, JR., 235 Fifth Ave., New York, N. Y., at $142,885, has been awarded the contract for the construction of a high school. Noted Dec. 3, Jan. 28 and Mar. 18.

North Bergen, N. J.—Plans are being prepared for the construction of School No. 6. The estimated cost is $165,000.

Perth Amboy, N. J.—Preliminary plans are being prepared for the construction of an addition to School No. 9 in the Budapest District. The estimated cost is $122,000. Noted Apr. 15.

Princeton, N. J.—Work will soon be started on the construction of a group of buildings for Princeton University. The buildings will be used for the study of animal diseases. The estimated cost is $1,000,000. Theobald Smith will be in charge.

+Union, N. J.—The general contract for the construction of a theater to be known as the New Union Theater at Hackensack Plank Rd. and Bergenline Ave. has been awarded to the DE RISO CONTRACTING CO., 217 Third St., Union, at about $150,000. FAGAN IRON WORKS, Third St., Hoboken, has been awarded the contract for the iron work. Noted Mar. 25.

West New York, N. J.—Plans are being prepared by Carl Goldberg, Arch., 437 Broadway, Bayonne, for the construction of a four-story, 90x120-ft. apartment house at Hudson Ave. and 12th St. for Weisberg & Cadel, Hudson Ave. and 11th St. Estimated cost, $100,000.

Coatesville, Penn.—The lowest bid received for the construction of a three-story, 136x138-ft. fireproof school for the Board of Education was submitted by W. J. Elliott, Coatesville, at $86,985.

Natrona, Penn.—An election will be held about May 10 by the Board of Education to vote on the question of issuing $75,000 in bonds. The proceeds will be used for the construction of a school.

Philadelphia, Penn.—Simon & Bassett, Arch., is revising plans for the construction of a three-story, 122x144-ft. fire and police station at Hunting Park Ave. for the City of Philadelphia.

+Pittsburgh, Penn.—The contract for the construction of the Shriners' Temple on Grant Blvd. has been awarded to GOLDEN & CRICK, 3512 Fifth Ave., Pittsburgh. Estimated cost, $500,000.

Pittsburgh, Penn.—(Official)—Bids will be received until 3 p.m., Apr. 27, by George W. Gerwig, Secy. of Bd. of Education, for the construction of the Schenley High School, at Grant Blvd. and Center Ave. Edward Stotz, Monongahela Bank Bldg., Pittsburgh, is Arch., and C. L. Wooldridge is Supt. of Bldgs. Noted Oct. 22, Nov. 19 and Apr. 1.

Pittsburgh, Penn.—McMasters & Crooks, Arch., Curry Bldg., is preparing plans for the construction of a building for Allegheny County to be used as a hospital for the insane. The estimated cost is $100,000.

+West Reading, Penn.—The contract for the construction of a school at West Reading has been awarded to HAUPT & RENTZ, Wyomissing. Estimated cost, $50,000.

Wilmington, Del.—The E. I. Du Pont de Nemours Powder Co. plans to construct an addition to its office building on 11th and Orange St.

+Baltimore, Md.—The contract for the construction of a two-story building on Fayette near Payson St. for the St. Martin's Day Nursery has been awarded to MONMONIER & SORRELL, 1711 McCulloh St., Baltimore. Estimated cost, $50,000.

Baltimore, Md.—The Grand Lodge of the Knights of Pythias will construct a temple. Estimated cost, $68,000.

Baltimore, Md.—Plans are being prepared by John K. Forsythe, Arch., for the construction of a three-story apartment house for Gilbert & Ridgely. Estimated cost, $50,000.

Washington, D. C.—Plans have been prepared by A. H. Stonneman, Arch., for the construction of a four-story apartment house, on 20th St., for Davidson & Davidson. Estimated cost, $45,000.

Grafton, W. Va.—Bonds to the amount of $110,000 have been sold by the Board of Education. The proceeds will be used for the construction of a high school at Grafton.

+Charlotte, N. C.—The contract for the construction of a three-story, 40x140-ft. building at East Fifth St. and Monroe Rd. for the Mercy General Hospital has been awarded to W. P. ROSE, Goldsboro. Estimated cost, $50,000.

+Durham, N. C.—J. A. JONES, Durham, has been awarded the contract for the construction of a building for the First Presbyterian Church. The estimated cost is $80,000. Noted Feb. 4.

+Greenville, Miss.—AGER & CLINE, Birmingham, Ala., has been awarded the contract for the construction of a high school. Noted Aug. 27.

Bastrop, La.—An election will be held May 12 for the purpose of issuing $55,000 in bonds, the proceeds to be used for the construction of a school.

New Orleans, La.—The City Bank & Trust Co. plans to construct a building at 126 Carondelet St. The estimated cost is $60,000.

+Lexington, Ky.—The contract for the construction of a 50x750-ft. freight-house for the Louisville & Nashville R.R. has been awarded to T. S. MOODY & CO., Chattanooga, Tenn.

Louisville, Ky.—Brinton B. Davis, Arch., 1909 Inter-Southern Bldg., is preparing plans for the construction of a church for the First Church of Christ, Scientist. Estimated cost, $150,000. J. F. C. Hegewald, 1126 East Breckenridge St., is Chn. of Bldg. Com.

Cleveland, Ohio—The Directors of the Case School of Applied Science, Euclid and Wade Park Ave., plan the construction of a school. Estimated cost, $200,000. Charles S. Howe is Pres.

Cleveland, Ohio—According to press reports C. H. Miles, Pres. of the Miles Theater Co., Pythian Temple, is interested in a project to construct a building for an indoor amusement park or winter circus. The estimated cost is $2,000,000.

Cleveland, Ohio—A. B. Smythe, 601 Swetland Bldg., and J. R. Sprankle, Cleveland, are interested in the construction of a four-story fireproof commercial building at Ontario St. and the Public Sq. The estimated cost is between $75,000 and $100,000.

+Cleveland, Ohio—The contract for the construction of the 12-story Cuyahoga Hotel at Superior Ave. and East Ninth St., for the Great Lakes Hotel Co., has been awarded to the H. L. STEVENS CO., 910 South Michigan Ave., Chicago, Ill. Estimated cost, $600,000. Jacob Babin, Williamson Bldg., is interested.

Cleveland, Ohio—Max Lees, 1866 East 97th St., plans the construction of a three-story apartment house on East 97th St., near Euclid Ave. Estimated cost, $45,000.

Columbus, Ohio—Bids will be received until noon, Apr. 24, by F. L. Packard, Arch., New Haydon Bldg., for the construction of a school for Elizabeth Township.

Northfield, Ohio—(Official)—All bids received Apr. 12 by G. L. Williams, Clk. of Bd. of Education, for the construction of a school have been rejected. Plans will be revised and new bids received. Noted Apr. 8.

+Tontogany, Ohio—The general contract for the construction of a school, has been awarded to SERREFF BROS., Lima, at $41,500. Howard & Merriam, 8 East Broad St., Columbus is Arch. Noted Mar. 25.

Zanesville, Ohio—The citizens will vote about May 11 on the question of issuing $300,000 in bonds, the proceeds to be used for the construction of a city hall and market. Noted Dec. 24.

+Indianapolis, Ind.—The contract for the construction of a building at Central Ave. and 22d St. for the Masonic Temple of Oriental Lodge, F. and A. M., has been awarded to HENRY W. KLAUSMANN, at $60,000. Noted Apr. 1.

Detroit, Mich.—Bids are being received by George H. Fenkell, Comr., City Hall, for the construction of a municipal court building. The estimated cost is $600,000. Smith, Hinchman & Grylls, 710 Washington Arcade Bldg., is Arch. Noted Nov. 5.

Grand Rapids, Mich.—The citizens voted against the issuing of $60,000 in bonds for the construction of an armory and convention hall.

Chicago, Ill.—The Fifteenth Church of Christ, Scientist, plans to construct a church at Central Ave. and Fulton St., Austin. The estimated cost is $125,000.

Chicago, Ill.—A. F. Rusy, Arch., 1607 South Crawford Ave., is preparing plans for the construction of a three-story hospital building for the Bohemian American Hospital Association. Estimated cost, $50,000. L. J. Fisher, 2533 South Central Park Ave., is Chn. of Bldg. Com.

+Eldena, Ill.—(Official)—W. J. McALPINE, Dixon, at $47,250, has been awarded the contract for the construction of a two-story County Infirmary. Other bids were: Blackhawk Construction Co., $51,316; Gust. Holm, $49,302; P. H. Lorenz, $47,289; Schmidt Bros. Construction Co., $49,974; Monmouth Galesburg Construction Co., $53,500; W. M. Allen, Son & Co., $55,798. Morrison H. Vail, Galena St., Dixon, is Arch. Noted Jan. 21.

Jerseyville, Ill.—On Apr. 10, the citizens voted in favor of issuing $79,000 in bonds, the proceeds to be used for the construction of a high school.

Joliet, Ill.—Construction work will be started about May 1 on the seven-story temple for the Knights of Pythias. Estimated cost, $230,000. Noted Dec. 3.

+Kenosha, Wis.—LUDWIG KLEMM, 1127 Elizabeth St., Kenosha, has been awarded the contract for the construction of a lodge building for the Kenosha Aerie No. 1055, Fraternal Order of Eagles. Noted Feb. 25.

+Madison, Wis.—The Board of Education has awarded the general contract for the construction of the Lincoln School on East Gorham St. to MORGAN & MORGAN, Madison, at $51,164. Noted Nov. 19 and Feb. 18.

Milwaukee, Wis.—Bids will soon be received by Frank M. Harbach, Secy. of Bd. of School Dir., for the construction of a two-story school on Oklahoma Ave. The estimated cost is $65,000.

+Racine, Wis.—NELSON & CO., Racine, at $61,528, has been awarded the general contract for the construction of a public school at West Racine. Noted Oct. 29, Jan. 14, Feb. 4 and Apr. 15.

Rice Lake, Wis.—John P. Walsh, and N. W. Bailey, Rice Lake, plan the construction of a three-story hotel, at Main and Marshall St. Estimated cost, $60,000.

+Stevens Point, Wis.—The general contract for the construction of an addition to St. Joseph's Academy near Stevens Point has been awarded to WAGNER & BAUMAN, Monroe. Estimated cost, $80,000. Noted Mar. 11.

Des Moines, Iowa—The question of issuing $100,000 in bonds for the construction of a school was defeated at a recent election.

Sioux City, Iowa—The Board of County Supervisors has approved the plans prepared by W. L. Steele, Arch., United Bank Bldg., for the construction of the six-story courthouse with a 60x60-ft. tower. Estimated cost, $500,000. Noted Dec. 25, 1913, Jan. 14, 1915 and Feb. 4, 1915.

Crosby, Minn.—The citizens have voted in favor of issuing $150,000 in bonds. The proceeds will be used for the construction of a high school. Noted Mar. 11.

Duluth, Minn.—Plans are being prepared by Vernon J. Price, Arch., for the construction of a five-story apartment on Jefferson St., for W. F. King. Estimated cost, $100,000.

Northfield, Minn.—Work will be started about July 1 on the construction of a dormitory for men at Carleton College. The estimated cost is $100,000. J. G. Kilroy will superintend the construction of the building.

St. Paul, Minn.—The City Realty Investment Co. plans to construct a seven-story mercantile building on Sixth near Jackson St. Estimated cost, $125,000.

Independence, Kan.—Plans prepared by Rose & Peterson, Barker Bldg., Kansas City, Kan., have been accepted for the construction of a two-story, 72x94-ft. city hall. Noted Oct. 1.

Omaha, Neb.—An election will be held May 4 to vote on the question of issuing $1,000,000 in bonds, the proceeds to be used for the construction of schools.

Livingston, Mont.—The B. P. O. E. plans to construct a lodge building at Second and Lewis St. Estimated cost, $60,000. Harry B. Blair is Secy. and Lewis Terwilliger is Treas.

+Austin, Tex.—George W. Littlefield has awarded the contract for the construction of a 10-story annex to the bank and office building to REINHART & DONOVAN, Oklahoma, Okla., at $96,672. Noted Mar. 11.

+Dallas, Tex.—The contract for the construction of the three-story City Temple of the Central Presbyterian Church at Akard and Bullington St. and Patterson Ave. has been awarded to BUCHANAN & GUILDER, Dallas. Estimated cost, $200,000. Noted Aug. 27.

Fort Worth, Tex.—J. A. Ingram has had plans prepared for the construction of a seven-story hotel on Main St. between 10th and 11th St. Estimated cost, $500,000.

San Angelo, Tex.—(Official)—Bids will soon be received by H. M. Gorden, City Engr., for the construction of a high School. Estimated cost, $75,000. S. H. Jenkins is City Secy. Noted Mar. 11 and Apr. 8.

Colorado Springs, Colo.—Bids will be received about May 1 for the construction of a $50,000 hospital for the Modern Woodmen of America. MacLaren & Thomas is Arch. Noted Feb. 25.

Burley, Idaho—A bond issue of $59,000 has been voted on by the citizens, the proceeds will be used for the construction of a school.

Ogden, Utah—The Ogden Aerie of Eagles plans to construct a clubhouse at 25th St. and Grant Ave. Estimated cost, $75,000.

Mt. Vernon, Wash.—Bids will be received about June 15 for the construction of a three-story, 90x120-ft. high school. The estimated cost is $60,000. Stephen & Stephen, New York Block, Seattle, is Arch.

(Continued on Page 221)

RAPID TRANSIT SYSTEM, NEW YORK, N. Y.

Section 4, Routes 4 and 36

Bids were received Apr. 9 by the Public Service Commission for the First District, for the construction of Section 4, Routes 4 and 36, a part of the Broadway-Fourth Ave. Rapid Transit Railway, from: (A) Litchfield Construction Co.; (B) Rodgers & Hagerty, Inc.; (C) T. A. Gillespie Co.; (D) Degnon Contracting Co.; (E) Mason & Hanger Co.; (F) J. F. Cogan Co.; (G) Oscar Daniels Co.; (H) Godwin Construction Co.; (I) Inter-Continental Construction Corporation; (J) Norton & Gorman Contracting Co.; (K) Smith, Hauser & MacIsaac, Inc.; (L) E. E. Smith Contracting Co.; (M) Underpinning & Foundation Co. The item bids were as follows:

Rapid Transit System, New York, N. Y.—Section 4, Routes 4 and 36.	A	B	C	D	E	F	G	H	I	J	K	L	M
98,700 cu.yd. earth excavation above mean high water	$3.19	$2.00	$4.75	$4.00	$4.80	$4.00	$3.50	$5.10	$5.00	$3.77	$5.20	$4.50	$5.80
2600 cu.yd. earth excavation for sewers, pipes, ducts, etc.	3.19	2.00	4.75	4.00	4.80	4.00	3.50	5.10	5.00	3.77	5.20	4.50	5.80
153,500 cu.yd. rock excavation	4.90	6.00	4.75	4.50	4.80	5.00	6.20	5.10	5.00	6.30	5.20	6.00	5.80
3700 cu.yd. rock excavation for sewers, pipes, ducts, etc.	4.90	6.00	4.75	4.50	4.80	6.00	6.20	5.10	5.00	6.30	7.50	7.00	5.80
1100 lin.fr.ft. maintaining, protecting, securing and underpinning	20.00	10.00	60.00	40.00	35.00	40.00	15.00	18.00	35.00	10.00	40.00	48.00	150.00
Supporting and permanent underpinning Central Park apartments (lump sum)	5000.00	36,000.00	2000.00	40,000.00	5000.00	25,000.00	17,000.00	3000.00	30,000.00	5000.00	15,000.00	17,500.00	33,000.00
30 lin.ft. restoring Central Park stone wall fence	10.00	5.00	12.50	50.00	15.00	20.00	25.00	20.00	5.00	20.00	50.00	6.00	10.00
2200 cu.yd. tunnel excavation	7.00	10.00	8.00	10.00	9.00	10.00	9.00	12.00	8.00	11.00	9.00	9.00	10.00
31,200 cu.yd. concrete masonry	7.50	9.00	8.50	9.30	9.00	10.00	8.50	9.00	10.00	8.50	8.80	9.00	8.00
3740 cu.yd. protective concrete	7.50	9.00	8.50	9.30	9.00	10.00	8.50	9.00	8.00	8.50	8.80	8.00	8.00
3000 cu.yd. rubble stone masonry	8.00	3.00	4.00	8.00	6.00	5.00	8.00	6.00	7.00	7.75	8.00	7.50	7.00
50 cu.yd. dry rubble stone masonry	6.00	3.00	3.00	7.00	3.50	4.00	3.50	5.50	4.00	6.50	8.00	5.00	6.50
100 cu.yd. brick masonry	20.00	15.00	15.00	15.00	15.00	12.00	16.00	15.00	20.00	18.00	20.00	15.00	20.00
50 cu.yd. hollow terra-cotta masonry	15.00	15.00	15.00	15.00	15.00	12.00	16.00	30.00	15.00	18.00	15.00	15.00	20.00
2000 bbl. grout of portland cement	4.00	3.00	2.85	1.50	2.50	2.50	2.50	3.50	4.00	4.10	3.75	2.50	3.00
1000 lin.ft. timber piles	0.40	0.25	0.40	0.20	0.50	0.20	0.20	0.25	0.50	0.25	1.00	0.25	0.30
2 M ft. b.m. timber foundations	50.00	50.00	45.00	50.00	60.00	50.00	55.00	60.00	50.00	30.00	100.00	30.00	50.00
100 cu.yd. broken stone or gravel	2.00	2.50	1.50	2.50	2.50	2.00	2.00	3.50	2.50	2.75	3.50	2.00	3.00
4900 sq.yd. waterproofing, 1-ply	0.30	0.35	0.40	0.50	0.45	0.40	0.40	0.50	0.40	0.53	0.60	0.50	0.50
100 sq.yd. waterproofing, 2-ply	0.50	0.60	0.65	0.75	0.60	0.50	0.80	0.60	0.60	0.76	0.90	0.80	0.85
24,700 sq.yd. waterproofing, 3-ply	0.70	0.75	1.00	1.10	0.95	0.90	1.00	0.80	0.80	0.95	0.90	1.10	1.20
100 sq.yd. waterproofing, 4-ply	0.90	1.25	1.25	1.45	1.20	1.00	1.35	1.00	1.10	1.15	1.25	1.40	1.55
100 sq.yd. waterproofing, 5-ply	1.10	1.50	1.50	1.75	1.50	1.10	1.70	1.20	1.25	1.55	1.50	1.70	1.90
1500 sq.yd. waterproofing, 6-ply	1.30	2.00	1.90	2.00	1.80	1.40	2.00	1.50	1.50	1.90	2.00	2.00	2.25
100 sq.yd. waterproofing, dry ply	0.20	0.35	0.30	0.40	0.30	0.30	0.40	0.35	0.30	0.50	0.60	0.50	0.45
660 cu.yd. brick in asphalt mastic	25.00	25.00	20.00	25.00	25.00	20.00	25.00	25.00	25.00	29.00	25.00	18.00	20.00
100 lin.ft. 12-in. vitrified pipe	0.60	0.75	0.75	0.80	0.90	0.75	1.00	1.00	1.00	1.10	2.50	1.00	1.20
100 lin.ft. 10-in. vitrified pipe	0.50	0.65	0.55	0.55	0.80	0.60	0.85	0.80	0.75	0.85	1.50	0.85	1.00
5150 lin.ft. 8-in. vitrified pipe	0.40	0.50	0.45	0.30	0.60	0.50	0.70	0.60	0.70	0.72	1.00	0.75	0.80
100 lin.ft. 6-in. vitrified pipe	0.30	0.45	0.40	0.25	0.40	0.40	0.60	0.40	0.50	0.50	0.80	0.65	0.60
100 lin.ft. 4-in. vitrified pipe	0.20	0.40	0.30	0.20	0.30	0.35	0.60	0.30	0.40	0.40	0.80	0.55	0.50
100 lin.ft. 6-in. c.i. pipe	1.20	1.00	0.75	1.00	1.25	1.00	0.90	1.50	1.50	1.40	2.00	2.00	1.20
4740 lin.ft. 4-in. c.i. pipe	0.75	0.50	0.55	1.00	0.80	0.75	0.60	1.00	1.00	0.85	0.80	1.50	1.00
25 lin.ft. 10-in. c.i. pipe	1.50	1.75	1.50	1.50	2.00	2.50	1.80	2.00	2.40	2.50	5.00	5.00	2.00
50 lin.ft. 3-in. extra heavy c.i. pipes, specials and fittings	0.50	1.00	0.60	1.00	0.90	1.00	0.60	1.00	1.00	0.90	1.25	1.00	0.60
100 lin.ft. 4-in. extra heavy c.i. pipes, specials and fittings	0.70	1.25	0.75	1.00	1.00	1.25	0.60	1.50	1.25	1.10	1.50	1.50	0.80
180 lin.ft. 6-in. extra heavy c.i. pipes, specials and fittings	1.25	1.50	1.00	1.50	1.50	1.75	1.00	2.00	1.50	1.60	2.00	2.00	1.20
150 lin.ft. 8-in. extra heavy c.i. pipes, specials and fittings	1.75	2.50	1.30	1.75	2.00	2.00	1.40	2.50	2.00	2.25	3.00	3.00	1.60
156,330 duct ft. tunnel ducts	0.10	0.11	0.12	0.10	0.10	0.10	0.095	0.10	0.10	0.10	0.10	0.10	0.12
22,100 duct ft. railroad ducts	0.10	0.15	0.12	0.15	0.14	0.15	0.13	0.15	0.12	0.25	0.15	0.15	0.20
2510 tons riveted steel	60.00	63.00	60.00	64.00	67.00	65.00	60.00	70.00	66.50	70.00	65.00	70.00	60.00
2350 tons steel beams and shapes	55.00	57.00	55.00	54.00	59.00	55.00	56.00	60.00	60.00	62.00	60.00	60.00	60.00
150 tons steel rods and bars	55.00	60.00	50.00	50.00	60.00	55.00	60.00	60.00	60.00	58.00	65.00	60.00	60.00
27 tons miscellaneous iron castings	50.00	70.00	50.00	50.00	65.00	70.00	65.00	70.00	60.00	72.00	100.00	75.00	80.00
6 tons miscellaneous sewer furnishings	50.00	100.00	50.00	50.00	70.00	70.00	70.00	80.00	60.00	70.00	100.00	75.00	80.00
1000 lb. special wire forms	0.03	0.10	0.15	0.10	0.10	0.10	0.11	0.15	0.10	0.15	0.12	0.20	0.25
2980 lin.ft. 1½-in. oak or ash handrail	1.00	0.45	0.50	0.75	0.40	0.90	0.25	0.20	1.00	0.60	0.50	0.50	0.40
7840 sq.ft. steel gratings	1.40	1.50	1.50	1.00	1.60	1.75	1.50	1.25	1.60	1.25	1.50	1.50	1.00
5000 sq.ft. vault light	1.25	1.50	1.80	1.00	1.50	2.00	0.90	1.25	1.40	1.40	1.50	1.50	1.00
5250 sq.yd. street surface restored within curb lines	2.00	1.50	2.00	2.00	2.00	2.50	2.50	1.50	1.50	1.25	3.00	2.00	2.00
15,140 sq.yd. street surface restored with asphalt	2.50	2.00	2.00	2.50	2.75	2.50	3.00	2.50	2.00	1.80	3.75	2.50	2.00
350 sq.yd. street surface restored granite block	2.50	2.50	2.50	3.50	2.75	2.25	1.60	2.50	2.50	2.75	3.00	2.50	2.00
290 sq.yd. street surface restored asphalt block	2.50	2.50	2.50	3.50	3.00	3.00	3.50	3.00	2.50	2.80	3.00	3.00	2.00
100 lin.ft. street surface restored new blue stone curb	1.00	1.50	1.00	1.50	1.00	1.40	1.00	1.50	1.00	1.25	2.00	1.50	1.50
2760 sq.yd. street surface restored wooden block	3.00	3.00	2.50	3.50	3.00	3.60	1.00	2.50	2.00	3.50	4.00	3.50	3.00
100 lin.ft. street surface restored with 8-in. granite curb	2.00	2.00	1.00	1.50	1.20	1.50	1.20	2.50	1.00	2.45	3.00	2.50	2.20
840 sq.yd. park surface restored	0.25	1.00	2.00	2.00	2.00	2.00	2.25	1.50	0.75	1.25	2.00	2.50	1.00
4500 lin.ft. w.i. electric conduits, ¾-in.	0.15	0.15	0.20	0.25	0.15	0.25	0.15	0.25	0.30	0.22	0.20	0.30	0.20
200 lin.ft. w.i. electric conduits, 1¼-in.	0.30	0.25	0.40	0.40	0.30	0.40	0.30	0.40	0.40	0.40	0.40	0.50	0.40
250 lin.ft. w.i. electric conduits, 2-in.	0.40	0.30	0.55	0.60	0.40	0.50	0.40	0.60	0.60	0.48	0.50	0.75	0.50
2400 lin.ft. w.i. electric conduits, 1-in.	0.20	0.20	0.25	0.30	0.25	0.30	0.20	0.30	0.35	0.30	0.30	0.40	0.30
510 c.i. outlet boxes	0.50	1.00	0.70	1.00	1.00	1.00	1.00	1.00	1.00	1.15	1.50	1.00	1.50
150 lin.ft. extra heavy c.i. pipes and fittings, 6-in	1.00	1.50	0.90	1.50	1.50	1.50	1.50	1.50	1.50	1.85	2.00	2.00	1.50
120 lin.ft. extra heavy c.i. pipes and fittings, 3-in	0.75	1.00	0.50	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.50	1.00	1.00
710 lin.ft. 12-in. vitrified pipe sewer	1.25	2.40	1.50	3.50	3.50	3.75	2.50	2.50	4.00	2.00	2.00	3.00	4.00
1020 lin.ft. 15-in. vitrified pipe sewer	2.00	2.75	2.00	4.00	4.00	4.25	3.00	3.00	5.00	2 90	2.50	3.50	5.00
160 lin.ft. 18-in. vitrified pipe sewer	2.50	3.25	2.50	4.50	4.60	4.75	3.50	3.50	6.00	4.05	3.00	4.00	6.00
1300 lin.ft. 20-in. vitrified pipe sewer	2.75	4.00	2.85	5.00	5.00	5.50	4.00	4.00	6.50	4.80	3.50	4.50	7.00
100 lin.ft. 22-in. vitrified pipe sewer	3.00	4.50	3.50	5.50	5.70	5.75	4.25	4.50	7.00	5.10	4.00	5.00	8.00
450 lin.ft. 24-in. vitrified pipe sewer	3.25	5.00	4.10	6.00	6.00	6.25	4.70	5.00	7.00	6.05	4.00	5.50	9.00
47 tons c.i. sewer pipe	40.00	40.00	40.00	60.00	45.00	45.00	40.00	60.00	60.00	52.00	50.00	40.00	50.00
23 tons c.i. sewer pipe special castings	75.00	75.00	80.00	90.00	70.00	75.00	70.00	80.00	100.00	81.00	100.00	80.00	100.00
130 lin.ft. 3 ft. 6 in. x 2 ft. 4 in. egg shaped brick or concrete sewer	3.75	6.25	5.00	10.00	7.00	7.00	5.50	9.00	10.00	7.25	15.00	7.50	15.00
140 lin.ft. 4 ft. 0 in. x 2 ft. 8 in. egg shaped brick or concrete sewer	4.65	7.50	6.00	12.00	8.00	8.00	6.50	12.00	11.00	8.75	15.00	9.00	18.00
5340 lin.ft. street surface railroad underground trolley	5.00	10.00	6.00	12.00	7.00	6.00	12.00	8.00	7.50	10.00	15.00	9.00	5.00
4 support elevator R.R. columns partly or wholly off subway	500.00	500.00	500.00	1000.00	800.00	800.00	700.00	750.00	1000.00	910.00	2500.00	800.00	600.00
530 lin.ft. 6-in. water pipe	0.75	0.40	1.00	1.50	0.80	1.00	0.80	1.50	1.00	1.10	1.50	1.20	0.60
210 lin.ft. 12-in. water pipe	1.50	0.75	2.00	2.50	1.50	1.50	1.50	2.00	1.50	1.70	2.50	1.75	1.20
420 lin.ft. 20-in. water pipe	2.50	1.25	2.50	3.50	2.50	2.50	2.25	4.00	3.00	2.70	5.00	3.00	2.00
30 service connections for water pipes	8.00	25.00	20.00	25.00	12.00	20.00	15.00	20.00	25.00	15.00	20.00	15.00	25.00
320 lin.ft. 4-in. c.i. gas pipe	0.50	0.40	1.00	1.00	0.75	0.90	0.75	1.00	0.60	0.60	1.00	1.00	0.50

	A	B	C	D	E	F	G	H	I	J	K	L	M
740 lin.ft. 6-in. c.i. gas pipe	0.75	0.50	1.50	1.25	1.00	1.00	1.00	1.50	1.00	0.85	1.50	1.20	0.75
630 lin.ft. 8-in. c.i. gas pipe	1.00	0.65	2.00	1.50	1.30	1.25	1.30	2.00	1.25	1.20	1.80	1.60	1.00
110 lin.ft. 12-in. c.i. gas pipe	1.50	0.75	2.50	1.75	1.80	1.50	2.00	2.50	1.50	2.00	2.50	2.10	1.50
5860 lin.ft. 8-in. w.i. bypassing pipe upon or below street surface	2.75	2.50	5.00	4.50	3.00	4.00	3.50	5.00	3.00	3.75	4.50	5.00	4.00
210 lin.ft. 8-in. w.i. bypassing pipe on trestle	1.75	2.00	2.75	4.50	3.00	8.00	3.50	6.00	3.00	3.75	5.00	10.00	6.00
210 lin.ft. trestle	3.00	1.50	2.00	2.00	3.00	2.00	5.00	4.00	3.00	3.75	6.00	10.00	5.00
110 lin.ft. 10-in. w.i. gas pipe	1.50	2.00	3.50	1.75	1.70	2.00	1.20	2.00	2.00	1.65	8.00	2.00	10.00
30 service connections for gas pipes	8.00	25.00	15.00	25.00	12.00	20.00	12.00	20.00	15.00	12.00	20.00	25.00	25.00
5 tons new c.i. hub and spigot straight pipe	30.00	35.00	35.00	40.00	35.00	40.00	35.00	50.00	100.00	41.00	60.00	35.00	50.00
50 lin.ft. new 10-in. standard weight w.i. gas pipe	2.00	1.75	3.00	1.75	1.70	2.50	2.50	4.00	1.50	2.25	2.00	2.50	10.00
2 tons new c.i. hub and spigot pipe special castings	50.00	65.00	50.00	60.00	70.00	70.00	70.00	75.00	120.00	73.00	100.00	75.00	100.00
50 lb. new malleable iron fittings for w.i. gas pipe	0.12	0.20	0.10	0.10	0.08	0.10	0.50	0.20	0.10	0.25	1.00	0.25	0.25
110 lin.ft. 8-in. h.p. water pipe	2.00	0.75	2.50	2.00	1.60	2.00	0.30	1.00	1.50	2.10	5.00	2.00	5.00
210 lin.ft. 12-in. h.p. water pipe	3.00	1.00	3.00	2.50	2.50	3.00	0.40	1.50	2.00	2.60	6.00	3.00	7.50
210 lin.ft. 16-in. h.p. water pipe	3.50	1.50	4.00	3.00	3.50	5.00	0.50	2.00	2.50	3.75	8.00	4.00	10.00
110 lin.ft. 20-in. h.p. water pipe	4.00	2.00	5.00	4.00	4.50	6.00	0.60	2.50	3.50	4.30	10.00	5.00	12.00
210 lin.ft. 24-in. h.p. water pipe	5.00	2.50	6.00	5.00	5.50	7.00	0.80	3.00	4.00	5.10	12.00	6.00	15.00
5 tons new c.i. spigot and groove h.p. water pipe	50.00	35.00	40.00	40.00	35.00	40.00	20.00	40.00	40.00	45.00	75.00	35.00	50.00
10 tons new c.i. spigot and groove h.p. special castings	75.00	65.00	50.00	60.00	70.00	75.00	20.00	55.00	60.00	78.00	100.00	75.00	100.00
1050 duct ft. electric ducts and conduits in place	0.35	0.50	0.40	0.50	0.50	0.50	0.25	0.50	0.50	1.25	1.00	0.50	0.60
110 lin.ft. 2½-in. w.i. pipe electric conduits	0.40	0.50	0.25	0.75	0.40	0.50	0.30	0.50	0.50	0.75	0.50	0.50	0.80
5250 lin.ft. 3-in. w.i. pipe electric conduits	0.50	0.50	0.30	0.75	0.45	0.60	0.30	0.60	0.50	1.05	0.60	0.60	0.80
110 lin.ft. 3½-in. w.i. pipe electric conduits	0.65	0.50	0.35	0.75	0.50	0.70	0.30	0.70	0.50	1.25	0.90	0.70	0.80
110 lin.ft. 4-in. w.i. pipe electric conduits	0.75	0.50	0.40	0.75	0.55	0.80	0.30	0.80	0.50	1.50	1.25	0.80	1.00
110 lin.ft. 4½-in. w.i. pipe electric conduits	1.00	0.50	0.45	0.75	0.70	0.90	0.30	1.00	1.00	1.90	1.75	0.90	1.00
210 lin.ft. 2-in. Edison conduits	0.50	1.25	0.20	1.50	0.65	0.50	0.30	1.50	1.00	1.00	1.00	1.50	1.50
210 lin.ft. 2½-in. Edison conduits	0.50	1.25	0.25	1.50	0.80	0.60	0.30	2.00	1.50	1.20	1.20	2.00	1.50
16 service connections for electric conduits	8.00	25.00	10.00	50.00	12.00	20.00	15.00	20.00	25.00	19.00	25.00	25.00	20.00
Extended totals	$1,937,509	$2,089,457	$2,159,064	$2,165,890	$2,217,955	$2,221,561	$2,277,269	$2,298,244	$2,318,778	$2,343,687	$2,442,079	$2,447,695	$2,593,821

+Seattle, Wash.—E. J. ROUNDS CONSTRUCTION CO., Globe Bldg., has been awarded the contract for the construction of a three-story, 60x108-ft. office building at First Ave. and Spring St. for the Puget Mill Co. Estimated cost, $50,000.

+Seattle, Wash.—The contract for the construction of a three-story apartment house for Brown & Cassells has been awarded to the WASHINGTON CONSTRUCTION CO., Seattle. Estimated cost, $60,000.

Tacoma, Wash.—Heath & Gove, Arch., National Realty Bldg., has prepared plans for the construction of a gymnasium at the Stadium High School. Estimated cost, $52,000.

Tacoma, Wash.—Plans have been prepared for the construction of a three-story building at 11th and Market st., for George M. Savage and W. K. Nichols. It will be occupied by the Stone-Fisher Co. The estimated cost is $15,000.

Portland, Ore.—Plans are being prepared by Emil Schacht & Son, Arch., for the construction of a one-story, fireproof commercial building at Ankeny, Pine, Sixth and Fifth St., for the Wilder Bros. Realty Co. Estimated cost, $40,000.

Portland, Ore.—Ellis F. Lawrence and William G. Holford, Assoc. Archs., have prepared plans for the construction of a clubhouse at Thompson and East 22d St. for the Irvington Club. Estimated cost, $80,000.

+Fresno, Calif.—F. M. Rossler has awarded a contract for the construction of a two-story building to J. L. DALY, at $62,400. Noted Dec. 3.

Los Angeles, Calif.—W. S. Garrett, Arch., Currier Bldg., is preparing plans for the construction of a reinforced-concrete hospital building at College and Castelar St. for the French Hospital Association. Estimated cost, $40,000.

Los Angeles, Calif.—The Methodist Mission, 255 East Fifth St., plans to construct a building to cost about $100,000.

Norwalk, Calif.—(Official)—Bids will be received until noon May 4, by W. F. McClure, State Engr., 625 Forum Bldg., Sacramento, for the construction of a group of buildings for the Norwalk State Hospital for the Insane. Estimated cost, $150,000. Noted July 23, Aug. 6 and Apr. 8.

Oakland, Calif.—Bids will soon be received for the construction of a two-story building at Franklin opposite 17th St. for the Native Sons and Daughters of Oakland. Estimated cost, $50,000.

San Fernando, Calif.—Bids will be received until 2 p.m., Apr. 24, by the Board of Trustees of the San Fernando Union High School District for the construction of a group of reinforced-concrete high school buildings. The group will include a two-story, 114x116-ft. auditorium building, a two-story, 96x160-ft. science building, and a one-story, 89x109-ft. mechanical arts building with a boiler plant. The estimated cost is $135,000. Noted Oct. 29 and Mar. 11.

Woodlake, Calif.—Plans have been prepared by F. L. Schwartz, Arch., Fresno, for the construction of a high school. Estimated cost, $40,000.

+Montreal, Que.—The contract for the construction of a public library on Sherbrooke St. E., has been awarded by the Board of Control to JOHN QUINLAN CO. Estimated cost, $445,000. Noted Oct. 29 and Jan. 14.

Hamilton, Ont.—Plans have been prepared for the construction of an addition to the St. Joseph's Hospital on John St. South. The estimated cost is $125,000.

St. Catharines, Ont.—Bids will be received until 5 p.m., May 3, by A. E. Nicholson, Arch., 46 Queen St., for the construction of a building for the Collegiate Institute.

CATALOG NOTICES

Hersey Mfg. Co., E and 2d St., South Boston, Mass. Catalog. Water meters. Illustrated, 46 pp., 6x9 in.

Art Metal Construction Co., Jamestown, N. Y. Catalog No. 757. Steel filing cabinets and office furniture. Illustrated, 80 pp., 7½x11 in.

The Atlas Portland Cement Co., 30 Broad St., New York. Pamphlet. Concrete Highway Construction. Illustrated, 36 pp., 6½x9 in.

Asbestos Protected Metal Co., Pittsburgh, Penn. Catalog. Asbestos Protected Metal for roofing and siding. Illustrated, 62 pp., 8x11 in.

Northern Engineering Works, Detroit, Mich. Bulletin No. 33. Air hoists, compressed air jacks, pneumatic cranes, etc. Illustrated, 16 pp., 6x9 in.

Trussed Concrete Steel Co., Youngstown, Ohio. Bulletin. Kahn pressed steel building construction. Illustrated, 20 pp., 8½x11 in.

Biesanz Stone Co., Winona, Minn. Folder. Sand and gravel washer. Illustrated.

Sullivan Machinery Co., Chicago, Ill. Bulletin No. 65C. Diamond core drills. Illustrated, 36 pp., 6x9 in. Bulletin No. 71-A. Air lift pumps. Illustrated, 30 pp., 6x9 in.

Chain Belt Co., Milwaukee, Wis. Catalog No. 60. Concrete mixers, pavers, etc. Illustrated, 64 pp., 7½x9½ in.

Kolesch & Co., 138 Fulton St., New York. Extract from Central Catalog. Surveying instruments. Illustrated, 6x9 in.

Sandusky Portland Cement Co., Sandusky, Ohio. Folder. Medusa waterproofing paste.

Semet-Solvay Co., Syracuse, N. Y. Pamphlet. Solvay granulated calcium chloride. Illustrated, 20 pp., 3½x9 in.

Smooth-On Mfg. Co., Jersey City, N. J. Booklet. Smooth-On motor repair package for leaks in iron and iron cement No. 7 for concrete floors. Illustrated, 14 pp., 3½x6 in.

Hazard Mfg. Co., Wilkes-Barre, Penn. Price List. Oil and gas well wire lines. Illustrated, 12 pp., 3½x6 in.

Knox Motors Co., Springfield, Mass. Circular. Knox tractor, model 35. Illustrated.

Fort Wayne Electric Works (Rock Drill Dept.) Madison, Wis. Bulletin No. 1143. Electric rock drill, type A. Illustrated, 20 pp., 8x10½ in.

The Statistics Bureau, 5 E. 42d St., New York. Catalog. Materials for the graphic presentation of facts. Illustrated, 20 pp., 6x8½ in.

Chicago Pneumatic Tool Co., Fisher Building, Chicago, Ill. Bulletin No. 34-M. Class O steam and power driven compressors. Illustrated, 36 pp., 6x9 in.

Ingersoll-Rand Co., 11 Broadway, New York. Form No. 3015. Portable air compressors. Illustrated, 32 pp., 6x9 in. Form No. 4032. Jackhamer mounting, type JM-6. Illustrated, 4 pp., 6x9 in.

Harbison-Walker Refractories Co., Pittsburgh, Penn. Catalog. Silica, magnesia, chrome and fire clay brick, etc. Illustrated, 160 pp., 4x6½ in.

Van Wie Pump Co., Syracuse, N. Y. Bulletin No. 300. Centrifugal pumps. Illustrated, 8 pp., 7½x10 in.

The Lagonda Mfg. Co., Springfield, Ohio. Catalog W-1. Lagonda locomotive arch tube cleaners. Illustrated, 12 pp., 6x9 in.

The Marion Steam Shovel Co., Marion, Ohio. Catalog No. 92. "Digging and Mixing Clay—One Operation." Illustrated, 30 pp., 5½x8 in.

Railways Accessories Co., the Rookery, Chicago, Ill. Catalog. Wightman mechanically welded rail joint. Illustrated, 32 pp., 5x8 in.

Cleveland Railway Supply Co., Citizens Building, Cleveland, Ohio. Pamphlet. Newhall flangeway guard for highway crossings. Illustrated, 4 pp., 6x9 in. Pamphlet. Newhall guard rail structure. Illustrated, 8 pp., 6x9 in.

American Casting Co., Birmingham, Ala. Catalog. National cast-iron culvert pipe. Illustrated, 24 pp., 6x9 in.

Chalmers & Williams, Inc., Chicago Heights, N. Y. Bulletin, Section T. Modern Crushing Machinery. Illustrated, 16 pp. 7x9 in. Section R. Symons disk crushers. Illustrated, 24 pp., 7x9 in.

The Builders' Iron Foundry, Providence, R. I., announces that it has received orders of importance. One, from the Inland Steel Co., of Indiana Harbor, Ind., calls for an 8-in. Venturi Meter Tube for boiler feed service. The Lackawanna Steel Co. recently placed orders for three 3-in. meters for the measurement of oil, and a 20-in. meter for the measurement of coke-oven gas. Bird & Son, paper manufacturer, ordered a Venturi meter for boiler-feed service.

The Southern Sales Office of the Bucyrus Co. has been moved from Birmingham to New Orleans. E. L. Byron, Southern Sales Mgr., will remain in charge of the Southern territory.

The Pacific Flush-Tank Co. announces its removal to 4241 East Ravenswood Ave., Chicago. The new building will include a laboratory, where the appliances of the company will be exhibited and demonstrated.

The C. W. Hunt Co., Inc., moved its New York offices to the new Adams Express Co. Bldg., 61 Broadway. The company, it will be recalled, is a large manufacturer of coal-handling machinery, conveying machinery, and small motor trucks.

Charles R. Marsh, Secy. of the Society of Constructors of Federal Buildings, Plymouth, Mass., is desirous of securing the names of manufacturers of building materials, so that he may place with them a list of members of the Society. The Society is composed of employees of the Supervising Architect's of the Treasury Department and have to do with the design, construction, equipment and maintenance of the U. S. public buildings.

The Sullivan Machinery Co. announces that after May 1 its Denver, Colo., office will be located in the Equitable Bldg. George W. Blackinton is Mgr.

SEWER SYSTEM, ENTERPRISE, ORE

Bids were received Mar. 22 by the City Council for the construction of a sewer system from: (A) J. H. Childs, La Grande, Ore.; (B) George Gordan, Portland; (C) H. L. Wilson Co., Walla Walla, Wash.; (D) Kennedy Construction Co., Portland; (E) Jacobson Bade, Portland; (F) H. Venske, Enterprise; (G) R. L. Langan, Spokane, Wash.; (H) R. N. Young, Hood River, Ore.; (I) Franklin L. Davis, Portland; (J) Morrison-Knudson, Boise, Idaho. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J
4870 cu.yd. earth excavation	$0.44	$0.50	$0.43	$0.45	$0.55	$0.55	$0.65	$0.42	$0.05½	$0.59
4220 cu.yd. gravel excavation	0.62	0.50	0.93	0.75	0.55	0.95	0.77	0.58	0.93½	0.91
4950 lin.ft. 8-in. pipe	0.36	0.35	0.32	0.35	0.45	0.35	0.29½	0.40	0.31	0.35
3215 lin.ft. 10-in. pipe	0.47	0.45	0.42	0.45	0.60	0.45	0.37	0.49	0.39	0.46
2460 lin.ft. 12-in. pipe	0.57	0.55	0.50	0.55	0.75	0.55	0.44½	0.74	0.49	0.57
2980 lin.ft. 15-in. pipe	0.72	0.65	0.67	0.80	0.85	0.90	0.62	1.00	0.71	0.81½
28 8x6 Ys	0.90	1.00	1.30	1.25	2.00	0.90	1.18	0.50	1.03	1.12
16 10x6 Ys	1.20	1.00	1.65	2.00	2.50	1.20	1.48	0.50	1.37	1.50
14 12x6 Ys	1.50	1.00	2.10	2.50	3.00	1.50	1.78	0.60	1.71	2.13
41 manholes	35.00	40.00	35.00	37.00	40.00	48.00	60.00	52.00	40.00	50.00
Tank	1858.00	2700.00	2766.00	2961.00	2000.00	1789.50	2892.60	2785.00	3000.00	2649.50
Extended totals	$14,958	$15,412	$16,472	$16,853	$17,312	$17, 725	$17,446	$17,796	$17,945	$18,540

IMPROVEMENT OF FURNACE BROOK PARKWAY, QUINCY, MASS.

✚Bids were received Mar. 22 for building to sub-grade, Furnace Brook Parkway from Quincy Shore Reservation to Hancock St., Quincy, from: (A) Jeremiah Sullivan, Cambridge; (B) D. M. Briggs & Co., Boston; (C) George T. Randle Co. and Randle & Stoddard, East Boston; (D) J. P. O'Riordan, Charlestown; (E) Nathan S. Brock, Brookline; (F) Richmond F. Hudson, Melrose; (G) John R. Burke, Boston; (H) Clark & Gore, Dorchester; (I) West Roxbury Trap Rock Co., Roxbury; (J) Middlesex Contracting Co., Framingham; (K) Farrell & Loud, Somerville; (L) Caputo & Giovannini, Boston; (M) A. William & Co., Boston; (N) Antonio G. Tomaselle, Dorchester; (O) Hugh Nawn Contracting Co., Roxbury; (P) H. P. Converse & Co., Boston; (Q) Peter Bompiani & Co., Boston; (R) Dennis F. Crowley, East Milton; (S) Coleman Bros., Boston; (T) Rowe Contracting Co., Boston; (U) James H. Fannon, Somerville; (V) Perini Construction Co., Ashland; (W) JOHN CASHMAN & SONS CO., Boston (awarded contract). The item bids were as follows:

FURNACE BROOK PARKWAY, QUINCY, MASS.

	A	B	C	D	E	F	G	H	I	J	K	L
40,000 cu.yd. earth grading	$0.45	$0.45	$0.43	$0.42	$0.33	$0.40	$0.35	$0.45	$0.40	$0.34	$0.33½	$0.38
100,000 cu.yd. filling, material to be furnished	0.78	0.74	0.64	0.59½	0.68	0.70	0.61	0.65	0.73	0.63	0.59	0.59½
15 M b.m. 2-in. spruce plank	42.00	38.00	70.00	47.00	50.00	35.00	42.00	40.00	30.00	40.00	46.00	40.00
5000 sq.yd. rip-rap paving	3.00	3.00	3.00	3.50	2.50	1.50	3.45	1.50	0.16	2.35	2.80	2.20
Extended totals	$111,630	$107,570	$97,250	$94,505	$94,450	$94,025	$92,880	$91,100	$90,250	$88,950	$87,023	$86,300

	M	N	O	P	Q	R	S	T	U	V	W
40,000 cu.yd. earth grading	$0.39½	$0.40	$0.38	$0.48	$0.47	$0.29	$0.33	$0.30	$0.30	$0.37	$0.23
100,000 cu.yd. filling, material to be furnished	0.58	0.54	0.58	0.48	0.47.	0.53	0.48	0.47	0.51	0.41	0.43
15 M b.m. 2-in. spruce plank	30.00	35.00	50.00	50.00	32.00	49.00	45.00	40.00	40.00	40.00	50.00
5000 sq.yd. rip-rap paving	1.75	2.35	1.30	2.18	1.90	2.00	1.80	2.25	1.25	2.12	2.15
Extended totals	$83,000	$82,275	$80,450	$78,850	$75,780	$75,335	$70,875	$70,850	$69,650	$67,000	$63,700

ASHOKAN RESERVOIR, ULSTER COUNTY, NEW YORK

Contract No. 152

✚Bids were received Apr. 13 by the Board of Water Supply, New York, N. Y., for surfacing with vitrified brick block and macadam portions of the highways and constructing guard walls at the Ashokan Reservoir in the towns of Olive, Marbletown and Hurley, Ulster County, from: (A) WINSTON & CO., Brown's Station, (awarded contract); (B) Harris-Rose Construction Corporation, 319 Pearl St., New York; (C) Nordon & Petrillo and James Garofano & Son, Inc., Proctor Bldg., Mt. Vernon; (D) Frawley-Kaufman Contracting Co., Inc., 51 Chambers St., New York; (E) H. B. Sproul Construction Co., Inc., Peekskill; (F) A. L. Guidone & Co., 131 East 23d St., New York; (G) Daniel F. Dunn, 25 Liberty St., New York; (H) De Graff & Hogeboom, Inc., and Zadoc P. Boice, 168 Washington St., Kingston; (I) State Highway Construction Co., Beacon; (J) Ward & Tully, Inc., West 20th St. and Railroad Ave., Brooklyn; (K) Conners Bros. Co., 64 West 88th St., New York; (L) Continental Public Works Co., 2 Rector St., New York; (M) Louis Wechsler, 1133 Broadway, New York. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M
27,000 lin.ft. excavating and grading road (rolling, preparation and shallow excavation)	$0.10	$0.25	$0.15	$0.70	$0.30	$0.30	$0.60	$0.30	$0.40	$0.40	$0.30	$0.66	$1.00
3000 cu.yd. excavating and grading (excavation not included in Item 1)	0.50	0.60	0.40	0.20	0.60	0.25	0.65	0.20	0.50	0.65	0.80	0.60	1.35
4000 cu.yd. broken stone for walks, drains, etc.	1.50	2.50	2.00	1.80	2.50	2.00	2.00	3.36	2.60	1.95	2.90	2.50	3.75
2000 cu.yd. broken stone for macadam surfacing	2.50	3.15	2.90	2.50	3.50	2.49	3.50	3.36	2.80	3.00	3.20	2.60	5.00
6000 cu.yd. concrete masonry for pavement foundations	3.00	3.10	3.50	3.65	3.50	3.12	4.00	3.74	3.83	4.50	3.80	7.50	6.75
3000 cu.yd. concrete masonry for curbs, edgings, etc	4.00	4.00	5.00	4.15	4.00	4.00	4.25	5.40	6.50	5.20	6.00	10.00	9.50
17,000 bbl. portland cement	1.20	1.85	1.44	2.00	1.35	1.60	1.70	1.55	1.70	1.81	1.64	2.00	1.75
40,000 sq.yd. vitrified brick pavement	1.60	2.11	2.05	1.95	1.90	1.80	1.80	2.00	2.15	2.07	2.20	2.30	3.25
500 lin.ft. vitrified pipe, 8 in. or smaller in diameter	0.50	0.20	0.45	0.25	0.30	0.40	0.30	0.40	0.20	0.33	0.40	0.50	0.30
40,000 lin.ft. stone guard walls	1.40	0.67	1.28	1.00	1.50	1.74	1.60	1.58	1.50	1.67	1.70	1.44	2.55
300 cu.yd. rubble masonry and paving in mortar	4.00	2.50	4.00	1.25	4.50	3.25	4.00	4.30	4.50	3.50	4.50	5.00	10.00
2000 lb. cast iron and steel	0.05	0.05	0.05	0.03	0.05	0.05	0.06	0.10	0.05	0.10	0.07	0.05	0.15
5000 lb. copper	0.40	0.30	0.41	0.50	0.30	0.27	0.24	0.27	0.25	0.45	0.40	0.25	0.35
Extended totals	$189,150	$200,550	$216,305	$221,110	$221,950	$223,975	$237,470	$240,090	$248,480	$253,185	$256,870	$296,520	$392,000

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

RAILWAYS

North Carolina—Carolina & Yadkin River Ry.—The extension of its line from High Point to Greensboro, N. C., about 15 miles, is being considered by this company.

Georgia—Bray Lumber Co.—Plans are being considered by this company for the construction of an extension to its logging road from Valdosta to Milltown.

Florida—Atlantic Coast Line R.R.—Surveys have been completed and this company plans to start work soon on the construction of its proposed extension from Sebring to Lake Okeechobee. E. B. Pleasants, Wilmington, N. C., is Ch. Engr. Noted Aug. 13.

Alabama—Pensacola, Mobile & New Orleans Ry.—This company has secured finances for the completion of its line from Loxley to Mobile Bay, Ala. H. McLaughlin, Pensacola, Fla., is Pres.

Mississippi—Dantzler Lumber Co.—Plans are being prepared by this company for the construction of a logging road from Bond, Miss. Uriah Wright, Gulfport, is Engr.

Kentucky—Barbourville & Manchester R.R.—Plans are being made by this company to start work about May 15 on the construction of its proposed railway from Barbourville to Manchester, about 25 miles. C. L. Heidrick, Brooksville, Penn., is making surveys. Noted Apr. 15.

Ohio—Dover, Millersburg & Western Ry.—This company has been incorporated to construct a railway from Canal Dover to Millersburg. T. F. Phillips, Canal Dover, is interested.

Kansas—Salina Northern Ry.—The Public Utility Commission has authorized this company to issue $1,250,000 of stock for the construction of its proposed railway from Salina to Osborne, about 80 miles. Noted Jan. 7.

South Dakota—Huron & Northwestern Ry.—This company has been incorporated to construct a railway from Huron, S. D., through Beadle, Spink, Clark and Day Counties, about 105 miles. The incorporators include F. W. Henderson, Summit, S. D., W. Pelham, Sioux Falls, S. D., C. E. Wolfe, Wahpeton, N. D., and C. B. Adams, Chicago, Ill.

✚Missouri—Ozarks Ry.—(Official)—This company has awarded the contract for the completion of its line from Springfield, Mo., to Little Rock, Ark., to the RAILROAD CONSTRUCTION CO., 80 Fifth Ave., New York, N. Y. Noted Feb. 4.

Idaho—Chicago, Milwaukee & St. Paul Ry.—According to press reports this company plans to start work soon on the construction of a tunnel through the Montana-Idaho divide near Wallace, Idaho.

Oregon—Kendall Bros., Pittsburgh, Penn., is interested in the construction of a railroad from Roseburg, Ore., to the timber lands on the Umpqua River, about 30 miles. Noted Aug. 6.

New Brunswick—Kent Coal & Ry. Co.—This company has applied for a charter to construct a railway from Rexton, N. B., to Minto, about 80 miles; also from Rexton to Richibucto Head. Inches & Hazen, Fredricton, N. B., is interested.

Alberta—Athabaska & Ft. Vermilion Ry.—This company has been incorporated to construct a railway from Athabaska to Trout Lakes and Ft. Vermilion, about 300 miles. J. M. Kernan, J. V. Rawle and J. Dalganeau, Athabaska, S. Clark, Ft. Vermilion, and J. Keith, Edmonton, are interested.

Alberta—Smoky Valley & Peace River Ry.—This company is being organized for the construction of a railway from a point near the junction of Solomon Creek and the Athabaska River to the Junction of Sheep Creek and Smoky River and up the Peace River Valley. Short, Woods, Biggar & Collisson, Edmonton, is interested.

ELECTRIC RAILWAYS

Arlington, Mass.—The Bay State St. Ry. Co. has applied to the Council for a franchise to replace its present track on Mystic St. with double tracks from Chestnut St. to Massachusetts Ave. connecting with the elevated line. R. S. Goff, Boston, is Vice-Pres. and Gen. Mgr.

Arlington, Mass.—The Boston Elevated Ry. Co. has applied to the Council for a franchise to double-track its line on Mystic St. to Chestnut St. and in Chestnut St. from Medford to Mystic St., making a loop. Edward Mahler, Boston, is Pur. Agt.

Worcester, Mass.—Plans are being considered by the Worcester Consolidated St. Ry. Co. for the extension of its line on Greenwood St. to the city limits. H. C. Page, Worcester, is Gen. Mgr.

Penn Yan, N. Y.—The Penn Yan & Lake Shore Ry. Co. will soon award contracts for the improvement of its line in Penn Yan. W. J. Tylee, Penn Yan, is Pur. Agt.

Newark, N. J.—The Public Service Ry. Co. has applied to the Board of Chosen Freeholders of Hudson County for permission to construct and operate an electric railway on the Jackson St. Bridge between Newark and Harrison. R. E. Danforth, Newark, is Gen. Mgr.

Irwin, Penn.—The Irwin-Herminie Traction Co. has completed surveys for the extension of its line from Irwin to Manor. F. W. Taylor, Irwin, is Secy. and Pur. Agt.

Sewickley, Penn.—Plans are being prepared by the Pittsburgh Rys. Co. for the extension of its lines through Sewickley. P. N. Jones, Pittsburgh, is Gen. Mgr.

Petersburg, Va.—The Petersburg & James River Ry. Co. and the Petersburg & Appomattox Ry. Co. have applied to the County Commissioners for a franchise to construct an electric railway from Petersburg to City Point, about 10 miles. Noted Apr. 8.

Parkersburg, W. Va.—The Kanawha Valley Traction Co. contemplates the extension of its line from Murdock Ave. in Parkersburg. S. Miller Gallaher, Charleston, W. Va., is Pur. Agt. and Ch. Engr.

Durham, N. C.—The Durham Traction Co. contemplates the extension of its line on Holloway St., for a distance of about one mile. R. L. Lindsay, Durham, is Gen. Mgr. and Pur. Agt.

Goldsboro, N. C.—The Goldsboro Electric Ry. Co. has been incorporated to succeed to Goldsboro St. Ry. Co. and to construct lines in or adjacent to Goldsboro within a radius of 50 miles. The incorporators include G. S. Dewey, Leslie Well and Joseph E. Robinson.

Waycross, Ga.—Preliminary arrangements are being made by the Waycross St. & Suburban Ry. Co. for the extension of its line through the southern section of the city. N. B. Rhoads is Gen. Mgr. and Pur. Agt. Noted Feb. 18.

Oakwood, Ohio—The Spaite-Wright Realty Co. has applied to the Council for a franchise to construct an electric railway in Oakwood for a distance of about two miles.

Rayland, Ohio—The Wheeling Traction Co. is preparing to extend its line to connect Rayland, Dillonvale, Adena and Mt. Pleasant. George O. Nagle, Wheeling, is Vice-Pres. and Gen. Mgr.

Muskegon, Mich.—The Muskegon-Saginaw Electric Co. has started surveys for the construction of its proposed electric railway to connect Muskegon and Saginaw. Clifford S. Gamble, Muskegon, is Engr. Noted Apr. 22.

Rockford, Ill.—The Rockford Southern Ry. Co. has started surveys for the construction of its proposed electric railway from Rockford to Rochelle. The line will be built by the A. C. Linglebach Co., Chicago, Ill. L. Leon de Tissandier, Rockford, is Engr.

Muscatine, Iowa—A. D. Bowen, Muscatine, and William Musser, Iowa City, are interested in the construction of an electric railway to connect Muscatine, Iowa City and West Liberty.

Hutchinson, Kan.—The Arkansas Valley Interurban Ry. Co. contemplates the construction of an electric railway from Hutchinson to Kinsley. Charles D. Bell, Wichita, is Supt.

Lawrence, Kan.—Plans are being considered by the Kansas City, Lawrence & Topeka R.R. Co. for the extension of its line to Lawrence. F. P. Dickson, Gumbel Bldg., Kansas City, Mo., is Pres. and Pur. Agt.

Austin, Tex.—The Austin St. Ry. Co. is considering plans for double-tracking its line to Lake Austin and for extending several of its lines in Austin. Charles Ing, Austin, is Supt.

Vinita, Okla.—The Vinita Ry. Co. is making preliminary arrangements for the construction of an electric railway to connect Vinita, Centralia and Miami. John R. Rose, Vinita, is interested.

✚Brigham City, Utah—The Ogden Rapid Transit Co. has awarded the contract for the construction of an extension from Brigham City to Wellsville to the UTAH CONSTRUCTION CO., Ogden. Noted Feb. 4.

Provo, Utah—The Salt Lake & Utah R.R. Co. plans to start work soon on the construction of a line from Provo to Springville, about six miles. R. M. Mitchell, Salt Lake City, is Pur. Agt.

Parker, Ariz.—Surveys have been made by the Parker & Colorado River Electric Ry. Co. for the construction of an electric railway in Parker and vicinity. W. H. Tharpe, Parker, is interested.

Sandy, Ore.—The Portland Ry., Light & Power Co. contemplates the construction of an electric railway from Sandy to Cottrell, about 18 miles. Franklin P. Griffith, Portland, is Pres.

LIGHT, HEAT AND POWER

✚New York, N. Y.—(Borough of Manhattan)—Bids were received Apr. 22 by the Board of Health, Dept. of Health, for the plumbing and gasfitting of a medical staff house and nurses' home on the grounds of the Willard Parker Hospital, foot of East 16th St., from: J. J. Kenny, $17,360; James Harley Plumbing Co., $17,747; J. T. KOOP, 23 Lawrence St., Brooklyn, $16,840 (awarded contract); William Young Plumbing Co., $18,150; Joseph B. Brady, $19,800; W. G. Cornell Co., $20,111; George E. Gibson, $25,684; T. E. O'Brien, $17,997; J. S. Murphy, $17,649. Bids for steam heating for the same building were received from: George E. Gibson, $7900; E. H. Larkin, $8000; E. Rutzler Co., $9040; Adam Witz & Co., $7832; William J. Olvany, $9906; Almiral & Co., $9639; Leslie & Tracy Co., $84,87; WALKER & CHAMBERS, 222 East 41st St., New York, $7485 (awarded contract); E. W. Newman, $8650; Peter Keeler Building Co., $9422; Teran, Mahaney & Monroe, $8662; Raisler Heating Co., $7550. Noted Apr. 8.

Clinton, N. J.—Bids will be received until May 10 by the Board of Managers of the Reformatory for Women, 1 Newark St., Hoboken, for the plumbing, heating and electrical wiring of a new reception cottage at the New Jersey State Reformatory for Women, Clinton.

Jersey City, N. J.—The Governor has authorized the Board of Chosen Freeholders of Hudson County to build a power plant at Snake Hill to supply light, heat and power to the county institutions at that place.

Plymouth, N. C.—An election will be held May 4 to vote on the question of issuing $12,000 in bonds, the proceeds of which will be used for the purpose of establishing a municipal electric-light plant.

Statesville, N. C.—Press reports state that the Southern Power Co., Charlotte, plans to construct a transformer station at Statesville. The proposed station will distribute the power from four of the plants of the company, including the Lookout Shoals plant, now in course of construction on the Catawba River, to the substations in the various towns to which the Southern Power Co. furnishes electrical service. Charles I. Burkholder, Charlotte, is Mgr. of the company.

Macon, Ga.—Press reports state that the Central Georgia Power Co., Macon, plans the construction of a new transformer station and transmission system to convey electricity from the Ocmulgee River development via Barnesville to Thomaston. The company is also considering the establishment of a hydro-electric plant on the Flint River, 12 miles from Thomaston. L. A. Magraw, Macon, is Mgr. and Ch. Engr.

Jacksonville, Fla.—It is reported that the Jacksonville Gas Co. will construct a new gas holder on West Church St. The estimated cost is $25,000. Harry B. Hoyt is Pres.

Johnson City, Tenn.—The Washington County Gas Co. has been incorporated with a capital stock of $200,000. It will build a plant in Johnson City, and lay 22 miles of mains for a high pressure gas system. Later, the company plans to extend its lines to Jonesboro and Elizabethton.

Cleveland, Ohio—(Official)—Bids will be received until noon, May 11, by the Commissioner of Purchases and Supplies, Room 511, City Hall, for the sale of used equipment of the municipal electric light department. The equipment includes engines, boilers, generators, etc. C. G. Beckwith is Supt. of Service and Distribution of the Municipal Electric Light Dept.

Cleveland, Ohio—Bids will be received until noon, May 7, by the Commissioner of Purchases and Supplies, 511 City Hall, for rotary converters, transformers and switching equipment, constant current transformers, lamps and glassware for the municipal electric-light department. F. W. Ballard, 1443 East Third St., is Comr. of Heat and Light Dept.

Kent, Ohio—(Official)—Bids will be received until noon, May 15, by the Board of Trustees of the Kent State Normal School for the construction of the power house, coal bin and tunnel connection of the heating plant and equipment for the Normal School. John A. McDowell is Secy., Bd. of Trustees.

Peebles, Ohio—(Official)—Bids will be received until noon, May 3, by G. A. Peterson, Village Clk., for the construction of a municipal electric-light plant. The work includes: A station building, two tubular steam boilers, and boiler-room, steam plant complete, one steam engine, dynamo, switchboard, pole line, wiring, lamp suspension.

Wadsworth, Ohio—It is reported that the City Council will call a special election to submit to the voters the question of purchasing the property of the Wadsworth Light & Water Co. at $87,000.

Brookston, Ind.—The city authorities are considering the installation of an electric-light plant in Brookston. It is reported that energy will be purchased to operate the system.

Ft. Wayne, Ind.—The Board of Works is considering the purchase of a 700-hp. high pressure boiler for the municipal electric-light plant. An addition to the boiler house will probably be built. Frank J. Dix is Supt. of the plant.

Lowell, Mich.—It is reported that the Board of Public Works plans to rebuild the municipal power house, making it fireproof. Frank J. McMahon is Supt.

Ashland, Wis.—Press reports state that the Appleyard interests, which control the local electric company, plan the construction of a new 10,000-kw. hydro-electric plant, for which the location has not yet been selected, and a 5000-kw. steam turbine plant to be located on the lake front at Ashland. Arthur E. Appleyard, Ashland, is Vice-Pres., Mgr. and Cont. Agt. of the Ironwood & Bessemer Ry. & Light Co.

Manitowoc, Wis.—The Board of Education has instructed Earl F. Miller, Arch., to prepare plans and advertise for bids for the construction of a central heating, lighting and power plant for the Manitowoc High School. The estimated cost is $15,000.

Marshfield, Wis.—At a recent special election, the citizens defeated the plan to build a municipal gas plant and distributing system, and voted in favor of granting a franchise to a private company to furnish service to the city. Noted Jan. 14.

Odeboldt, Iowa—The City Council has granted a 20-year franchise to Russell & Fry, Corydon, Iowa, for installing and operating an electric-light plant in Odeboldt. The cost of the plant is estimated at $15,000.

Pomona, Kan.—The citizens have voted in favor of issuing $13,000 in bonds to be used for the installation of a municipal electric-lighting system in Pomona. Energy will probably be purchased from the municipal plant at Ottawa.

✚Pratt, Kan.—The City Commissioners have awarded the contract for the construction of the municipal electric-light plant to the CONNOR CONSTRUCTION CO., Kansas City, Mo., at $47,262. Bids were received Apr. 20. Noted Apr. 1.

Leigh, Neb.—At a recent election the citizens voted to issue $10,000 in bonds for the purpose of constructing a municipal electric-light plant. Bruce & Standeven, Omaha, is Consult. Engr.

St. Louis, Mo.—Press reports state that the recently-elected Board of Aldermen has pledged itself to establish a municipal power plant in St. Louis. It is tentatively estimated that a plant of sufficient capacity to furnish the service now supplied by the Union Electric Light & Power Co. will cost about $6,000,000. M. R. H. Witter is City Engr. Noted Apr. 22.

Urich, Mo.—At a recent election the citizens voted in favor of granting the Urich Electric Light & Power Co. a franchise to install and operate an electric-light plant in Urich. H. Busse is interested. Noted Apr. 15.

Ellensburg, Wash.—The lowest bid received for the construction of an addition to the municipal power building was that of J. A. McEachern & Co., Colman Bldg., Seattle, at $28,420; the lowest bid for the installation of a steam turbine was from the Halliday Machinery Co. at $14,275.. E. L. Butler is Mgr. and Supt. of the municipal electric plant. Noted Feb. 25 and Apr. 1.

Exeter, Ont.—The Town Council is having plans prepared for the installation of a new hydro-electric system. The estimated cost is $30,000. A distribution system to supply energy to neighboring towns is also planned. T. B. Carling is Town Clk.

St. Mary's, Ont.—It is reported that the Water, Light and Heat Commission has petitioned the Town Council for an appropriation of $12,500 to be used for installing a new street-lighting system and the purchase of a gasoline engine for the municipal power plant.

BRIDGES

Lowell, Mass.—It is reported that plans have been completed by Stephen Kearney, City Engr., for a new bridge at Pawtucket Falls. The estimated cost is $80,000. The plans are now before the City Council for approval.

Worcester, Mass.—It is reported that the State Legislature has passed the bill authorizing the construction of a bridge over Lake Quinsigamond, at a cost not to exceed $250,000. Noted Oct. 30, 1913, and Feb. 5, 1914.

Hartford, Conn.—It is reported that an appropriation of $35,000 has been made for rebuilding the Capitol Ave. Bridge across the Park River. Roscoe N. Clark is City Engr. Noted Jan. 28.

✚New Brunswick, N. J.—(Official)—The Board of Chosen Freeholders of Middlesex County has awarded the contract for the construction of a concrete slab bridge over Green Brook at Madison Ave., Dunellen, to the EAST JERSEY CONTRACTING CO., Perth Amboy, at $5936. Noted Apr. 15.

✚Pittsburgh, Penn.—(Official)—The Board of Commissioners of Allegheny County has awarded the contract for placing wood block floors in a number of bridges to the FARRIS BRIDGE CO., Jenkins Arcade Bldg., Pittsburgh, at $12,750. Hyatt M. Cribbs is County Controller. Noted Apr. 15.

Washington, Penn.—(Official)—See item under "Streets and Roads."

Easton, Md.—(Official)—The lowest bid received by the Commissioners of Talbot County for the construction of the Leeds Creek Bridge on the Tunis Mills Rd. was that of August Coster, 617 Low Bldg., Norfolk, Va., at $17,973. F. W. Seth is County Engr. Noted Apr. 8.

✚Richmond, Va.—The Administrative Board has awarded the contract for repairing eight of the old spans of the Ninth St. Bridge across the James River to the VIRGINIA BRIDGE & IRON CO., Roanoke, at $17,760.

Elkins, W. Va.—Bids will be received until May 4 by Thaddeus Pritt, Clk. of Randolph County, for the construction of seven county bridges. Noted Jan. 28 and Mar. 25.

★Rome, Ga.—(Official)—Bids will be received until noon, May 21, by the Board of Commissioners of Roads and Revenue of Floyd County for the construction of the following bridges in the City of Rome: Second Ave. Bridge, about 376 ft. long; Broad St. Bridge, about 407 ft. long; Fifth Ave. Bridge, about 367 ft. long with a movable span of 100 ft. The first two will be of reinforced concrete, while the last will be a steel truss on concrete substructure. W. C. Spiker, Hurt Bldg., Atlanta, is Consult. Engr. Kieffer Lindsey, Rome, is County Engr. J. G. Pollock is Chn. of Comrs. Noted Dec. 3, Jan. 14 and 28, Apr. 8.

✚Goshen, Ala.—(Official)—The Board of Commissioners of Pike County, Troy, has awarded the contract for the construction of a reinforced-concrete bridge over the Conecuh River near Goshen to SCRUGGS & ARD, Birmingham, at $14,333. Noted Apr. 1.

✚Sunflower, Miss.—A contract for the construction of a steel bridge across the Sunflower River has been awarded to the LARIMER & BURGET BRIDGE CO., Memphis, Tenn., at about $20,000.

Memphis, Tenn.—The Public Service Commission of Missouri, Jefferson City, has granted permission to the Memphis Ry. Bridge & Terminal Co. to issue $7,500,000 in bonds for the purpose of building a bridge over the Mississippi River at Memphis. The bridge is to be built by the St. Louis, Iron Mountain & Southern, the St. Louis Southwestern and the Chicago, Rock Island & Pacific Ry., acting through the terminal company.

✚Akron, Ohio—(Official)—The Board of Commissioners of Summit County has awarded the contract for paving the concrete bridge on the North Howard St. extension between Akron and Cuyahoga Falls to WILLIAM J. YOCKEY, South Akron, at $5143. There were four other bidders. E. M. Paul is County Engr. Noted Apr. 15.

Alliance, Ohio—(Official)—Bids will be received until 10 a.m., May 7, by the Board of Commissioners of Stark County, Canton, for the construction of an extension to Ryan Run Culvert in Lexington Township, Alliance. C. L. Stoner, Canton, is Clk. of Comrs.

Canton, Ohio—(Official)—The Board of Commissioners of Stark County has given notice of its intention to build a new girder bridge over Nimishillen Creek at Eighth St., N. E., Canton, and also to rebuild the bridge over Nimishillen Creek at Tuscarawas St., W., Canton. C. L. Stoner is Clk. of Comrs.

Cincinnati, Ohio—It is reported that the Board of Commissioners of Hamilton County is considering the construction of a new bridge over Mill Creek on the Springfield Pike. The estimated cost is $75,000. Fred E. Wesselman is Pres. Bd. of Comrs.

Cincinnati, Ohio—The Ohio Legislature has authorized the Southern Ry. to issue bonds for the purpose of rebuilding its bridge across the Ohio River between Cincinnati and Ludlow, Ky. It is reported that the residents and manufacturers on both sides of the river are promoting a plan to make it a street-car, wagon and pedestrian bridge as well as a double-track railway bridge. B. Herman, Washington, D. C., is Ch. Engr. of the Southern Ry.

Cleveland, Ohio—(Official)—Bids will be received until 11 a.m., May 5, by the Board of Commissioners of Cuyahoga County for the construction of a bridge, Report No. 3507. E. G. Krause is Clk. of Comrs.

Columbus, Ohio—Bids will be received until 2 p.m., Apr. 30, by Clinton Cowen, State Highway Comr., for bridge and culvert work in Ashland, Champaign, Defiance, Erie, Fulton, Greene, Harrison, Highland, Knox, Medina, Monroe, Paulding, Perry, Portage, Richland, Ross, Stark, Summit and Trumbull Counties.

Dayton, Ohio—(Official)—Bids will be received until 10 a.m., May 7, by the Board of Commissioners of Montgomery County for the construction of Bridge No. 64 over the Mad River, Mad River Township, and Bridge No. 74 over the Great Miami River at Johnsons Station, Wayne Township. Both bridges will replace structures destroyed by the floods of March, 1913. Walter H. Aszling is Clk. of Comrs.

Marietta, Ohio—(Official)—Bids will be received until 1 p.m., May 18, by the Board of Commissioners of Washington County for the construction of the following bridges: Bridge over the West Fork of Duck Creek near Warner; bridge over Indian Run near Marietta; bridge over Straight Run in Adams Township; bridge over Bear Creek in Adams Township, and the Wooster Bridge in Belpre Township. Walter B. Alexander is County Audr.

✚Lexington, Ohio—(Official)—The Board of Commissioners of Perry County has awarded the contract for the substructure of a bridge over Jonathan Creek at Glenford, Hopewell Township, to E. L. PAUL, Zanesville. Noted Apr. 15.

Steubenville, Ohio—It is reported that the Commissioners of Jefferson County will appropriate $18,000 for building nine new bridges in the county, and repairing several others.

Struthers, Ohio—(Official)—Bids will be received until 10 a.m., May 10, by the Board of Commissioners of Mahoning County, Youngstown, for the construction of a 70-ft. reinforced-concrete bridge over Yellow Creek at Struthers. Frank H. Vogan, Youngstown, is Clk. of Comrs.

Corydon, Ind.—Bids will be received until 2 p.m., May 5, by the Board of Commissioners of Harrison County for the construction of a 100-ft. bridge across Indian Creek on the Corydon and New Albany Rd. J. L. O'Bannon is County Audr.

East Chicago, Ind.—Bids will be received until 1 p.m., May 14, by Edward Simon, Audr. of Lake County, Crown Point, for the construction of a Strauss type trunnion bascule bridge over the canal at 155th St., East Chicago. Noted Sept. 24, 1914.

✚Muncie, Ind.—(Official)—The Board of Commissioners of Delaware County has awarded the contract for the construction of three bridges in Salem Township and one in Township 20 to the INDIANA BRIDGE CO., Muncie. Noted Apr. 15.

✚Bloomington, Ill.—(Official)—The Highway Commission of McLean County has awarded contracts for a steel bridge in West Township, and a concrete bridge in Empire Township to the PORTER-McCULLY CONSTRUCTION CO., Mackinaw, and WALESBY & GAMMIE, Chicago, respectively. R. O. Edwards is County Supt. of Highways. Noted Apr. 15.

De Pere, Wis.—The City Clerk will shortly advertise for bids for rebuilding the Main St. Bridge over the Fox River in De Pere. The estimated cost of the work is $21,000. J. Steckart is Mayor. Noted Mar. 25.

Des Moines, Iowa—Press reports state that the City Council has decided to build a bridge over Four-Mile Creek to cost not less than $10,000, and will build other necessary bridges from Easton Blvd. to Douglas Ave. F. N. Carrs is City Engr.

Marshalltown, Iowa—It is reported that the Chicago & Northwestern Ry. will shortly ask for bids for the construction of an 1100-ft. viaduct over its tracks at Third Ave.

Montezuma, Iowa—The Board of Supervisors of Poweshiek County has passed a resolution of necessity for the construction of 17 concrete bridges and culverts in the county. W. C. McKee is County Audr.

Manhattan, Kan.—Bids will be received until noon, May 20, by George H. Hungerford, County Clk. of Riley County, for the construction of county bridges.

Marysville, Kan.—(Official)—Bids will be received until noon, May 11, by the Board of Commissioners of Marshall County for the construction of the following reinforced-concrete bridges: One 110-ft. span in Rock Township; two bridges, each a 25-ft. span, in Herkimer Township; one 50-ft. span in Murray Township. A. J. Harvey is County Clk.

Olathe, Kan.—Bids will be received until May 4 by the Commissioners of Johnson County for the construction of four concrete bridges in Shawnee Township. W. Moore is County Clk.

Topeka, Kan.—The Board of Public Works is receiving bids for the construction of a new bridge over the Fallkill at North White St. The structure will be of reinforced concrete. A. R. Young is City Engr.

Beatrice, Neb.—Bids will be received until noon, May 11, by J. C. Penrod, County Clk. of Gage County, for the construction and repair of all county bridges as ordered by the Board of County Supervisors during the year.

Nebraska City, Neb.—Bids will be received until noon, May 20, by Louis Stutt, Clk. of Otoe County, for all county bridge work for the year. Noted Feb. 11.

North Platte, Neb.—(Official)—Bids will be received until noon, May 21, by C. W. Yost, County Clk. of Lincoln County, for the construction of a bridge over the North Platte River about two miles east of the Town of North Platte. Bids will be accepted for either a reinforced-concrete structure or a low truss steel bridge. Press reports state that the Canton Bridge Co., Canton, Ohio, refused to sign the contract awarded to it for the construction of this bridge from bids received Mar. 17. Noted July 23 and Sept. 24, 1914; Feb. 18 and Apr. 15.

Medora, N. D.—It is reported that plans have been prepared by Jay W. Bliss, Bismarck, State Engr., for the construction of a bridge over the Little Missouri River at Medora. The estimated cost is $17,805.

✚Columbus, Mont.—The Board of Commissioners of Stillwater County has awarded the contract for the construction of five reinforced-concrete bridges to the SECURITY BRIDGE CO., Billings, at $12,376. Bids were received Apr. 12. Noted Mar. 25.

Kahoka, Mo.—It is reported that bids will be received until May 5 by the Commissioners of Clark County for the construction of seven concrete bridges. A. E. Ostrich is County Engr.

✚Robert Lee, Tex.—The Commissioners Court of Coke County has awarded the contract for the construction of two steel bridges on reinforced-concrete piers to the MISSOURI BRIDGE & IRON CO., Fulton Bldg., St. Louis, Mo., at $8770. S. B. Kemp is County Judge. Noted Mar. 25.

Chickasha, Okla.—The Commissioners of Grady County, Chickasha, and of Canadian County, El Reno, are reported to be planning to build a 1700-ft. bridge across the Canadian River. The estimated cost is from $30,000 to $35,000.

Tulsa, Okla.—At an election held Apr. 12, the citizens of Tulsa County voted in favor of a bond issue of $200,000 for the purpose of building a bridge over the Arkansas River. Lewis Cline is County Clk. Noted Apr. 1.

Watonga, Okla.—(Official)—Bids will be received until 10 a.m., May 6, by J. F. Williams, County Clk. of Blaine County, for the construction of a bridge in Lawton Township.

Acme, N. M.—(Official)—We are advised by R. T. Ballard, Clk. of Chaves County, Roswell, that no report concerning a bridge over the Pecos River near Acme has yet been rendered by the County Engineer. As soon as this report is made, the County Commissioners will probably advertise for bids for the construction of the bridge. The estimated cost is $12,000. Noted Apr. 15.

Salt Lake City, Utah—(Official)—Bids will be received until 10 a.m., May 8, by R. E. L. Collier, County Surv. of Salt Lake County, for the construction of a pile bridge across the Jordan River.

✚Hoquiam, Wash.—(Official)—Bids were received Apr. 7 by J. H. Neef, Comr. of Pub. Wks., for repairs to the Eighth St. Bridge as follows, alternate plans (a) and (b): Weymouth Construction Co., Spokane, (a) $9750, (b) $9950; Shepherd, Cressman & Co., Seattle, (a) $7532; (b) $7847; O. J. Klawitter, Seattle, (a) $7207, (b) $7807; McCREARY & WILLARD, Spokane, (a) $6852, (b) $7502 (awarded contract). A fixed estimate of $700 was added to each bid. Noted Mar. 25 and Apr. 22.

Okanogan, Wash.—It is reported that the City Commissioners and the Board of Commissioners of Okanogan County, Conconully, have agreed to share the cost of a steel bridge to be built in the City of Okanogan. Plans will be prepared by J. W. Bowerman, of Bowerman & McCloy, Mutual Life Bldg., Seattle.

Seattle, Wash.—Bids were received by the Board of Public Works for the construction of a bridge over the Duwamish Waterway at Eighth Ave. S., as follows: J. A. McEachern Co., Colman Bldg., $26,860; J. R. Wood, 621 Valley St., $27,443; Jahn Contracting Co., Pioneer Bldg., $27,485; Manhattan Construction Co., Central Bldg., $28,537; Weymouth Construction Co., $29,976; P. Manson, $35,191. All bidders of Seattle. Noted Nov. 12, Mar. 11 and Apr. 15.

Spokane, Wash.—It is reported that plans are being prepared by Morton Macartney, City Engr., for replacing the present wooden approach to the south end of the Monroe St. Bridge with one of reinforced-concrete.

Tacoma, Wash.—It is reported that the Chicago, Milwaukee & St. Paul Ry. has been requested by the City Commissioners to build a bridge over Bay St. without supports in the middle of the street, which the present bridge has. The estimated cost of such a structure is from $75,000 to $100,000.

Wenatchee, Wash.—(Official)—We are advised by F. A. Warren, County Engr. of Chelan County, that, because of a lack of sufficient funds, the construction of the Wenatchee River Bridge has been postponed until 1916. The estimated cost is $35,000. Noted Mar. 25.

Portland, Ore.—Bids will be received until 10 a.m., May 3, by the Commissioners of Multnomah County for the construction of a reinforced-concrete viaduct on the Columbia Highway, near Eagle Creek. It will require 260 cu.yd. concrete in superstructure, 52 cu.yd. in substructure, and 105,000 lb. reinforcing steel. Plans on file with the County Roadmaster, 502 Court House, Portland, and with the State Highway Commission, Salem.

Auburn, Calif.—(Official)—Bids will be received until 10 a.m., May 4, by Marshall Z. Lowell, Clk. of Bd. of Supvrs. of Placer County, for the construction of a reinforced-concrete bridge over the Bear River near Sheridan, on the California State Highway.

Hanford, Calif.—The Board of Supervisors of Kings County has rejected all bids received Apr. 7 for the construction of a reinforced-concrete bridge over Cross Creek. New bids will be received. The estimated cost is $5500. B. E. Duffield is County Surv. Noted Apr. 1.

Martinez, Calif.—It is reported that the Board of Supervisors of Contra Costa County has adapted plans for the construction of a 542-ft. bridge over the Middle River connecting Contra Costa and San Joaquin Counties. The estimated cost is $120,000.

Redding, Calif.—Press reports state that the Supervisors of Shasta County have decided to build 18 new bridges this year along the line of the State Highway in the county. The estimated total cost is $200,000, and the bridges will aggregate 3650 ft. in length.

Sacramento, Calif.—Bids will be received until May 3 by E. F. Pfund, Clk. of Sacramento County, and G. G. Halliday, Clk. of Solano County, Fairfield, for the construction of a road trestle on Wood Island in the Sacramento River.

Santa Barbara, Calif.—(Official)—The City Trustees will shortly call for bids for the construction of a bridge on Carrillo St. over Mission Creek. It will cost about $20,000. A. B. Cook is City Engr.

Bathurst, N. B.—Bids will be received until May 5 by the Minister of Public Works, Fredericton, for the construction of the Brown's Dam Mill Bridge over the Tete-a-Gauche River. It will consist of concrete abutments and pedestals, stone embankment, four steel spans and three steel trestle tower piers. A. R. Wetmore, Fredericton, is Engr.

WATER SUPPLY—IRRIGATION

+**Boston, Mass.**—The contract for assembling hydrants and valves has been awarded to the COFFIN VALVE CO., at $7450. D. Frank Doherty is Supt. of Supply Dept.

Warren, Mass.—A bill, authorizing the construction of a water system, has been signed by the Governor. Noted Nov. 5 and Mar. 4.

Providence, R. I.—(Official)—It is stated that a dam will be constructed at Kent in connection with the increased water supply. A gravity pipe line will be constructed from the north branch of the Pawtuxet River to Providence. Joseph H. Gainer is Mayor and B. Thomas Potter is Chn. of Com. on Increased Water Supply. Noted Feb. 19, 1914.

★**Hartford, Conn.**—(Official)—Bids will be received until 3 p.m., May 17, by the Board of Water Commissioners, for the construction of a gravel surface road north of Nepaug reservoir under Contract No. 8. Noted Apr. 8. C. M. Saville is Ch. Engr.

Brocton, N. Y.—(Official)—We have been advised about the city will make extensions to the water system by city forces. H. M. Fleming is Clk. Noted Apr. 1 and 22.

★**Gilbertsville, N. Y.**—(Official)—Bids will be received until May 6 by E. M. Holden, Village Clk., for constructing a storage dam, reservoir and filtration plant. The estimated cost is $18,00. Charles E. Perry is Engr. Noted Apr. 22.

+**New York, N. Y.**—(Borough of the Bronx)—(Official)—The contract has been awarded to KNIGHT & DI MICCO, at $16,314, for laying water mains in various streets. Noted Apr. 8 and 22.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 2 p.m., May 5, by William Williams, Comr. of Water Supply, Gas and Electricity, for furnishing c.-i. water pipe, specials and valve box castings, valves and double nozzle fire hydrants.

Camden, N. J.—Bonds for $50,000 have been sold by the Finance Committee of the Council. The proceeds will be used for the improvement of the water stations. Noted Apr. 8.

Jersey City, N. J.—(Official)—Bids will be received until 2 p.m., May 6, by the Board of Commissioners for installing one 42-in. valve and a section of 60-in. steel pipe with cross connection, in Carleton Ave. M. I. Fagen is City Clk.

Newark, N. J.—The Board of Works has authorized the City Council to prepare a formal application to the State Water Commission asking its approval for the acquisition of the Wanaque watersheds for the construction of a reservoir.

+**Perth Amboy, N. J.**—The contract has been awarded to the ALLIS-CHALMERS MFG. CO., Milwaukee, Wis., at $32,205, for a 12,000,000-gal. horizontal pumping engine at the municipal water-works. Noted Feb. 18 and Apr. 8.

Trenton, N. J.—The Runyon bill has been passed by the State Legislature, authorizing the issuance of $1,000,000 in bonds, the proceeds of which will be used for the purchase of the Wharton tract in South Jersey for water supply for villages in that section.

Alburtis, Penn.—(Official)—Plans have been approved by the State Department of Health for the extension of the distributing system. A. K. Snyder is Burgess. Noted Feb. 18.

Brockwayville, Penn.—(Official)—Extensions will be made to the distributing system for which plans have been approved by the State Department of Health.

Dauphin, Penn.—(Official)—Plans have been approved by the State Department of Health for the installation of a settling basin with a temporary liquid chlorine disinfection.

Gallitzin, Penn.—(Official)—The State Department of Health has approved plans for the construction of a distributing system and a storage reservoir. Noted Feb. 10 and Jan. 21.

Hazleton, Penn.—(Official)—The Wyoming Valley Water Supply Co. has had plans approved by the State Department of Health for the construction of storage reservoirs.

Johnstown, Penn.—(Official)—Plans have been approved by the State Department of Health for pumping equipment and distributing system in East Wheatfield Township, Cambria County.

Malvern, Penn.—(Official)—Plans have been approved by the State Department of Health for a new source of water supply and for extensions to the distributing system.

Mill City, Penn.—(Official)—The Mill City Water Co. will make extensions to its distributing system.

Morgantown, Penn.—(Official)—Extensions will be made to the distributing system of the Pennsburg Water Co. Plans have been approved by the State Department of Health. Noted July 9.

Newmanstown, Penn.—(Official)—The Newmanstown Water Co. will construct gravity pipe lines and a new source of water supply.

Pennsburg, Penn.—(Official)—Extensions will be made to the distributing system of the Pennsburg Water Co. Plans have been approved by the State Department of Health.

Philadelphia, Penn.—(Official)—The Department of Health has approved plans for the construction of a sedimentation basin for the Torresdale filtration plant.

Pittsburgh, Penn.—(Official)—The State Department of Health has approved plans for the extension of the distributing system in Reserve Township, Allegheny County.

Sykesville, Penn.—(Official)—Bids were received Apr. 12 for constructing a water system as follows: Jacob Ferrier, Du Bois, $9600; Curwensville Construction Co., Curwensville, $7739; John T. Minns, Du Bois, $8710; Pittsburgh Construction Co., Pittsburgh, $9600; Horn & Devlin, Galeton, $8718; Fletcher & Russell, Mahaffey, $11,818; Sykesville Construction Co., Sykesville, $15,147; John R. Bennett, Sykesville, $10,910; P. E. McGovern, Punxsutawney, $8036 and M. O. Skinner, Du Bois, $14,537. E. W. Hess & A. L. Bouton, Deposit National Bank Bldg., Du Bois, is Engr. Noted Sept. 24, Nov. 26, 1914 and Apr. 3, 1915.

Baltimore, Md.—(Official)—Bids will be received until May 5 by the Board of Awards for contract No. 41 for furnishing sulphate of iron to the water department.

Baltimore, Md.—The Water Board has been authorized by the Board of Estimate to have specifications prepared for the installation of an electrically driven centrifugal pump at the Eastern pumping station. The estimated cost is $25,000.

East New Market, Md.—The low bidder for the construction of a water system was the E. L. Jones & Co., Dover, Del., at $4994. Bids were opened Apr. 15. Noted Apr. 1.

Galax, Va.—The city will spend $16,000 for the construction of water and sewer systems. D. A. Robertson is Mayor. Noted Apr. 22.

Wheeling, W. Va.—(Official)—An election will be held May 15 to vote on the question of issuing bonds for $640,000. The proceeds will be used for the installation of a Smith slow sand filter system. Charles B. Cooke is City Engr. Noted Mar. 25.

Southern Pines, N. C.—An election will be held May 4 to vote on the question of issuing $20,000 in bonds, part of the proceeds of which will be used for the extension of the water system. H. E. Foss is City Clk.

Warrenton, N. C.—An election will be held May 17 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for the construction of water and sewer systems. Gilbert C. White, Charlotte, is Engr. Noted Mar. 18.

Fountain Inn, S. C.—(Official)—Surveys are being made by McCrady Bros. & Cheves, Charleston, for the installation of water and sewer systems.

+**Manning, S. C.**—(Official)—The contract has been awarded to WALTON & WAGNER, Atlanta, Ga., at $32,690, for constructing a water system. C. R. Spratt is Chn. Bd. of Pub. Wks. Noted Apr. 1 and 15.

Key West, Fla.—(Official)—All bids received Apr. 17 for water mains, hydrants and valves, have been rejected. Charles J. Curry is Audr. Noted Apr. 1 and 15.

Gadsden, Ala.—The city plans to build a reservoir and replace the steam pumping plant with electricity. W. G. Berrenger is Mayor.

Phenix City, Ala.—(Phoenix post office)—Bonds for $16,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system.

Hammond, La.—The citizens, at a recent meeting, decided to construct water and sewer systems. The estimated cost is $50,000. E. E. June, Hammond, is in charge.

Knoxville, Tenn.—George P. McTeer, City Comr., will install a 100-hp. boiler and a 55-hp. boiler at the filtration plant.

Maryville, Tenn.—Bids will be received until May 10 by W. A. McTeer, City Recdr., for the purchase of $55,000 in bonds, the proceeds of which will be used for the construction of a water system. R. C. Huston, Memphis, is Mgr. Noted Apr. 30, 1914 and Mar. 4 and 25, 1915.

Memphis, Tenn.—Koehler Bros., 68 Camp Ave., Memphis, and the Fowler Construction Co., associated, at $14,162, was low bidder for constructing a reservoir on Bayou Gayoso.

Harrodsburg, Ky.—Improvements will be made to the municipal water system.

Monticello, Ky.—A company is being formed to install a water system at Monticello. W. E. Woodrow, C. C. Duncan and A. E. Shelton are interested.

Shelbyville, Ky.—Announcement has been made by the Kentucky Utilities Co., Lexington, that it will construct a filtration plant in connection with its water system at Shelbyville.

Lorain, Ohio—Bids will soon be received for rebuilding the water-works, the estimated cost of which is $25,000. C. M. Osborne is City Engr.

+**Oxford, Ohio**—(Official)—Contracts have been awarded to the BROWNELL CO., Dayton, for boilers, and to PEAK & BAKER, Oxford, for laying pipe at $3120 and $1793 respectively. H. A. Hand is Clk. Noted Apr. 1.

Rocky River, Ohio—(Official)—Bids will be received until noon, May 18, by Frank Mitchell, Clk., for laying water mains in North Ridge and North View Rd. Plans are on file with William H. Evers Engineering Co., The Arcade, Cleveland, Ohio.

★**Paris, Ill.**—(Official)—Bids will be received until 10 a.m., May 18, by the City Clerk for constructing four earth dams, a diversion channel, a wet well and an intake and two sewers.

Springfield, Ill.—According to press reports bids were received Apr. 12 by the Council for a 750-hp. turbo generator at the Sangamon River as follows: Kerr Turbine Co., Wellsville, N. Y., about $18,695; Ridgeway Dynamo & Engine Co., Chicago, $17,400 and the C. H. Wheeler Mfg. Co., Philadelphia, Penn., $5600 for a condenser.

+**Stronghurst, Ill.**—The contract has been awarded to T. H. IGLEHART, The Rookery, Chicago, at $10,373, for the construction of a water system. Noted Oct. 29 and Apr. 8.

Kenosha, Wis.—Bids will soon be received for the construction of a new municipal water-works pumping station and a lake intake, consisting of 10,000 ft. of 48-in. c.-i. pipe. B. C. Brennan is Supt. of Water-Wks. Noted July 2.

✚★Milwaukee, Wis.—The Department of Public Works has re-awarded the contract for building approximately 5200 lin.ft. of 9-ft. concrete shore tunnel from the new Linnwood Ave. intake to the North Point pumping station to O'BRIEN & JACKSON, Chicago, Ill., at $255,000. The low bidder, F. H. Nakielski, Milwaukee, who was originally awarded the contract at $34.92 per ft., withdrew because of an error in figuring his bid. Noted Mar. 25 and Apr. 1.

Marcus, Iowa—G. Y. Skeels, Sioux City, has been retained by the city to prepare plans for the extension of the water system. Floyd Barnes is City Clk. Noted Apr. 8.

Pella, Iowa—Bids will be received until May 1 by A. C. Kuyper, City Clk., for extensions to the water system. Noted Jan. 28.

Cottonwood, Minn.—Bids will be received until 8 p.m., May 8, by W. A. Sisson, Village Recdr., for laying 5700 ft. of 4-in. c.-i. water mains.

✚Duluth, Minn.—The contract was awarded for the construction of a 1,000,000-gal. reservoir at Woodland to D. H. CLOUGH, Duluth, at $12,985. D. A. Reed is Mgr. Water and Light Dept. Noted Mar. 11 and Apr. 1.

✚McCune, Kan.—The contract has been awarded to T. L. GREEN, Pittsburg, Kan., at $5925, for installing a water system. Noted Aug. 13, 1914 and Feb. 25, 1915.

Blair, Neb.—(Official)—Bonds have been voted by the citizens, the proceeds of which will be used for the construction of a water system and electric-light system.

✚Fordyce, Neb.—(Official)—The contract has been awarded to the ALAMO CONSTRUCTION CO., Omaha, Neb., at $8319, for constructing a water system. Other bidders were: Public Service Co., $8400; W. L. Bruce, $8899; E. J. Heckle, $8597 and G. L. Hasnik, $8756. L. S. Wise is Village Clk. Noted Oct. 8 and Apr. 8.

Lacreek, S. D.--P. E. Skalinder and others have incorporated the Bennett County Irrigation & Water Co. with $10,000 capital. The company will construct an irrigation system.

✚Lemmon, S. D.—(Official)—The contract has been awarded to C. A. INGALLS, Lemmon, at $10,608, for constructing extensions to the water system. C. L. Pillsbury Co. is Consult. Engr. Noted Sept. 3 and Apr. 8.

Sykeston, N. D.—The city plans to construct a water system at an estimated cost of $14,000. Charles L. Smith is City Clk.

✚Laramie, Wyo.—The contract for laying about five miles of water mains have been awarded to J. S. SCHWARTZ, Colorado Springs, Colo., at $6410. Noted Feb. 4.

✚Chillicothe, Mo.—The contract has been awarded, according to press reports, to F. D. MARTIN, Rialto Bldg., Kansas City, at about $35,000, for constructing a filtration plant. Noted Mar. 11 and Apr. 1.

Fulton, Mo.—(Official)—Bids will be received by the Board of Managers of the Missouri School of the Deaf until 6 p.m., May 11, for the construction of a tunnel and water mains.

Cumby, Tex.—An election will be held .to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the extension of the water system.

Sugar City, Colo.—(Official)—We have been advised that the town does not contemplate making extensions or rebuilding its water system. J. M. Ballou is Town Clk. Noted Apr. 8.

Brigham, Utah—Surveys are being made for the construction of a reservoir in the Devil's Gate Valley near Brigham.

✚Ogden, Utah—(Official)—The contract has been awarded to the GREEN CONSTRUCTION CO., Tooele, at $23,117 for laying Matheson joint pipe. Other bidders were: P. J. Moran Co., Salt Lake City, $26,684; Smith & Spragins, Salt Lake City, $27,844; Lyman & Samuels, Salt Lake City, $30,645; Henser Sim & Vorkink, Salt Lake City, $35,497; Corey, Taylor Construction Co., Ogden, $34,109; J. P. O'Neill Construction Co., Ogden, $35,454 and Wheelwright Construction Co., Ogden, $37,971. Washington Jenkins is City Engr. Bids were opened Apr. 13. Noted Jan. 21, Feb. 11 and Apr. 8.

Ogden, Utah—(Official)—The Portland Wood Pipe Co., Portland, Ore., was low bidder at $18,080, for furnishing 11,300 ft. of 36-in. wood state pipe. Washington Jenkins is City Engr.

✚Ogden, Utah—(Official)—The contract has been awarded to GEORGE A. LOWE CO., Ogden, at $49,050, for 1700 ft. of 24-in. Matheson joint pipe. Noted Apr. 8.

Kent, Wash.—(Official)—Bids will be received until May 3 by L. E. Price, City Clk., for laying 1500 ft. of 12-and 16-in. steel pipe and 400 ft. of 12-in. wood pipe. Noted Mar. 25 and Apr. 15.

✚Hoquiam, Wash.—The contract has been awarded to the HENRY WORTHINGTON CO., New York, N. Y., at $6126, by the City Council for a Worthington steam pump for the water system.

Riverside, Wash.—Bids will be received until May 4 by W. H. Patterson, Town Clk., for constructing a water system. The estimated cost is $9500. C. H. Green is Engr.

Roslyn, Wash.—According to press reports the citizens voted in favor of issuing $28,000 in bonds, the proceeds of which will be used for the extension of the water system. Noted Feb. 4 and Mar. 18.

North Powder, Ore.—(Official)—We have been advised that no election was held recently for the construction of a water system but one is contemplated in the near future. Noted Apr. 8.

✚Warrenton, Ore.—According to press reports the contract has been awarded to the C. H. GREEN CO., Spokane, Wash., at $138,000, for constructing a gravity water system. Noted Dec. 3 and 24 and Mar. 18.

Modesto, Calif.—Bids will be received until May 4 by the Modesto Irrigation District for constructing an earth fill over the Indian Hill gulch, near the La Grange dam.

✚Modesto, Calif.—The contract has been awarded to the TIBBETS-PACIFIC CO., San Francisco, at $71,155, for constructing the Rairden and Slater fills on the main canal near La Grange by the Modesto Irrigation District.

✚Oakdale, Calif.—The contract has been awarded to J. H. CLARK, Oakdale, at $15,000, for making extensions to the irrigation system controlled by the Oakdale Irrigation District. Noted Nov. 19, 1914, and Feb. 11, 1915.

Palo Alto, Calif.—Bids will be received until May 3 by F. Kasson, City Clk., for laying 19,892 ft. of 6-in. water mains. The estimated cost is $16,500. J. F. Byxbee, Jr., is City Engr.

San Diego, Calif.—According to press reports an election will be held May 4 to vote on the question of issuing $70,000 in bonds, the proceeds of which will be used for the purchase and improvement of the water system of the Fairmount Water Co.

San Francisco, Calif.—The citizens, at a recent election, defeated the bond issue for the purchase of the water system of the Spring Valley Water Co. The California Railroad Commission, which is the Public Utility Commission, will be asked to appraise the system and the question will again be submitted to the voters.

✚Santa Susana, Calif.—The contract for constructing a reinforced-concrete reservoir for Tapo Ranch has been awarded to WARDALL & WAGONER, 117 East 47th Ave., Los Angeles, at $4210.

Ottawa, Ont.—L. L. Gisborne, Water-Works Dept., desires catalogs in connection with water-works supplies and machinery.

★Toronto, Ont.—(Official)—Bids will be received until noon, May 4, by T. L. Church, Chn. Bd. of Control, for installing water tube boilers at the main pumping station.

SEWERS

Milton, Mass.—Bids will be received until Apr. 30 by the Sewerage Commissioners for the construction of 10,000 lin.ft. of sewers and a pumping station.

Providence, R. I.—Bids will be received until 2;15 p.m., May 3, by William C. Pelkey, City Clk., for constructing sewers.

★Bridgeport, Conn.—(Official)—Bids will be received until 8 p.m., May 10, by Bernard Keating, Secy. of Paving and Sewer Comn., for constructing sewers in Seaview and Housatonic Ave.

Greenwich, Conn.—Bids will be received until May 1 by Sheldon E. Minor, Clk. Sewer Comn., for the construction of a sewage-disposal plant. The estimated cost is $180,000. Noted Feb. 25 and Mar. 25.

Batavia, N. Y.—(Official)—Bids will be received until May 5 by I. J. Carmichael, City Clk., for constructing sewers. R. F. Clark is City Engr. Noted Apr. 15.

✚Buffalo, N. Y.—The contract for the construction of sewers in Angle, Heath and Newburgh St., in Woodside andDutton and Fillmore Ave. has been awarded to the FAHNING-CAREY CONTRACTING CO. Noted Apr. 1 and Apr. 15.

Buffalo, N. Y.—The city contemplates constructing sewers in South Side Parkway and in Northumberland Ave.

✚Gloversville, N. Y.—(Official)—Bids were received Apr. 20 by C. J. Mahoney, City Clk., for constructing 5435 ft. of 20-, 18-, 15- and 12-in. vitrified sewer as follows: JOHN P. DUGAN & CO., Amsterdam, $5811 (awarded contract); A. M. Banker, $6694; A. L. Willey, $8801; John Allen, $9505; Kallam & Schaffer Co., $9790; Clarence Welch, $6989. H. J. Hanmer is City Engr. Noted Apr. 8.

★Huntington, N. Y.—(Official)—Bids will be received until 2 p.m., May 14, by the Sewer Commissioners by the construction of a sewer system and sewage-treatment works. George W. Fuller, 170 Broadway, New York, N. Y., is Engr. Noted Dec. 17, Jan. 14 and Apr. 15.

✚New York, N. Y.—(Borough of Brooklyn)—The contract for the construction of sanitary sewers in Prospect Park has been awarded to C. F. MENTZINGER'S SON, 356 Broadway, Brooklyn, at $15,022. Noted Mar. 18 and Apr. 8.

New York, N. Y.—(Borough of Brooklyn) — (Official)—Bids were received Apr. 21 by L. H. Pounds, Borough Pres., for the construction of sewers (a) in East 32nd St. from Ave. I to Ave. J, (b) in East 27th St. from Ave. N to Kings Highway, (c) in 55th St. from 15th to 17th Ave., (d) for the construction of sewer basins on each side of Ocean Ave. from Ave. J. to Ave. K, and (e) in the southeast corner of Albany Ave. and Eastern Parkway as follows: P. Tomasetti, (a) 66%, (b) 84%, (c) 76.41%, (d) 113%; Maglionia & Minera, (a) 87%, (b) 88%, (c) 90%; T. Lapadula, (a) 73.99%, (c) 77.99%; S. Paconi & Sons, (a) 65%, (b) 70½%, (c) 69%, (d) 100%, (e) 105%; Joseph Jennings, (a) 84.59%, (b) 97.37%, (c) 106%; E. Gelardi Contracting Co., (a) 69%, (b) 93%, (c) 79%, (d) 109%, (e) 130%; F. Merrindino, Inc., (a) 80%, (b) 80%, (c) 90%, (d) 105%, (e) 120%; Murphy Bros., (a) 79%, (b) 88%, (c) 78.77%; A. A. Dumproff, (a) 90%, (b) 98%, (c) 95%; B. Paconi & Sons, (a) 65%, (c) 74%, (d) 90%, (e) 125%; D. Donegan Co., (b) 88%, (c) 85%; James H. Holmes & Sons, (c) 91.4%. Noted Apr. 15.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., May 12, by L. H. Pounds, Borough Pres., for constructing sanitary and storm outlet sewers, a main sewer in Ave. V and a sewage-pumping station.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., May 5, by L. H. Pounds, Borough Pres., for the construction of sewers in Ave. H from East 35th St. to Brooklyn Ave.; in East 31st St. from Farragut Rd. to the line of the Flatbush Water Works, and sewer basins at each corner of 31st St. and Foster Ave.; for constructing sewer basins in Flatlands Ave. and for the construction of a sewer in East 35th St.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 10:30 a.m., May 6, by Douglas Mathewson, Borough Pres., Municipal Bldg., 177th St. and Third Ave., for the construction of sewers and appurtenances in Plimpton Ave., between Boscobel Ave. and Featherbed Lane, in 234th St. between Spuyten Duyvil Rd. and Kingsbridge Ave., in Corlear Ave., in 238th St. between Broadway and Putnam Ave. and in Review Pl.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m., May 5, by Maurice E. Connolly, Borough Pres., for the construction of sewers and appurtenances in Canal, Shaw, Snediker and Jamaica Ave. and in Syosset, Unum, and Yarmouth St., Fourth Ward; in Jackson Ave., First Ward; in Guion, Beaufort and Napier Ave., Fourth Ward.

✚**New York, N. Y.**—(Borough of Queens)—The contract has been awarded to JAMES H. JOHNSON for constructing sewers in Britton Ave. from Broadway to Ithaca St. and in Ketcham St. from Britton Ave. to Pettit Pl., Second Ward, at $4387 and $8180. Noted Apr. 8 and Apr. 22.

New York, N. Y.—(Borough of Queens)—The construction of a sewer in Audley St. from St. Anns Ave. to Mayfair Rd. is under consideration.

Oswego, N. Y.—(Official)—Bids will be received until 2 p.m., Apr. 30, by Charles W. Linsley, Comr. of Pub. Wks., for sewer construction. Noted Mar. 18.

✚**Ravena, N. Y.**—Bids were received Apr. 10 by the Board of Village Trustees for constructing five miles of 8-, 10-, and 12-in. vitrified pipe sewers and a sewage treatment plant as follows: KELLAM-SHAFER CO., Schenectady, $16,189, (awarded contract); Amanna & Sullivan, $28,781; Lincoln, Steele, Fleming Co., $28,121; H. W. Golden & Son, $28,635. Noted Dec. 24, Mar. 23 and Apr. 1.

✚**Rochester, N. Y.**—The contract for the construction of the Brighton sewage-disposal plant has been awarded to the R. T. FORD CO., at $68,049. Noted Jan. 21., Feb. 4 and Mar. 25.

Syracuse, N. Y.—It is reported that work will soon be started on the construction of sanitary and storm sewers in the Huntley Tract and in the Fourth Ward. The estimated cost is $112,000. W. T. Wooley is City Engr. Noted Nov. 20.

Hoboken, N. J.—Bids will soon be received by the City Commissioners for the construction of trunk sewers in 11th and 15th St. The estimated cost is $281,552. Noted Sept. 17 and Mar. 25.

Maywood, N. J.—(Official)—An election will be held in June to vote on the question of issuing $25,000 in bonds, the proceeds of which will be used for the construction of a sewer system. Noted Apr. 15.

Monmouth Beach, N. J.—(Long Branch post office)—Bids will be received until Apr. 30 by Jesse W. Potter, Borough Clk., for furnishing 6-, 8-, 10-, and 12-in. No. 1 Ohio deep and wide terra cotta pipe in carload lots.

Newark, N. J.—Bids will be received until May 6 by Morris R. Sherrard, City Engr., for the construction of sewers in Telford and Oration St. and in Fourth Ave. Noted Mar. 25.

✚**Nutley, N. J.**—The Board of Commissioners has awarded the contract to JAMES T. BOYLAN for constructing sanitary sewers in Washington Ave.

★**Palisades Park, N. J.**—(Official)—Bids will be received until 8 p.m., May 11, by Benjamin E. Budds, Mayor, for the construction of a sedimentation tank of the Imhoff type and a sewer system.

Duquesne, Penn.—(Official)—The State Department of Health has approved plans for constructing extensions to the lateral sewers.

✚**Newport, Penn.**—The contract has been awarded to J. W. ENSIGN, Camp Hill, for constructing sewers in Oliver, Second and Fourth St.

Philadelphia, Penn.—(Official)—The State Department of Health has approved plans for the construction of lateral sewers.

Pittsburgh, Penn.—(Official)—The State Department of Health has approved plans for the construction of intercepting sewers.

Wilkes-Barre, Penn.—(Official)—The State Department of Health has approved plans for lateral sewer extensions.

Baltimore, Md.—(Official)—Bids were received Apr. 14 by the Sewerage Commission for constructing sewers in Section 1 of the Gwynn's Falls Interceptor as follows: James Ferry & Sons, $26,817; M. O'Herron & Sons, $27,124; Thomas Hampton, $29,776; Smith & Ruggles, $29,841; Whiting-Turner Construction Co., $30,004; Ryan & Reilly, $32,585; A. T. Carozza & Co., $35,215; John A. Clark, $44,322. Calvin W. Hendrick is Ch. Engr. Noted Apr. 8.

Baltimore, Md.—The city contemplates constructing a sewer system in Anne Arundel County and a sewage-disposal plant. H. K. McCay is City Engr.

Galax, Va.—The city contemplates constructing a sewer system.

✚**Luray, Va.**—The contract for constructing sewers in Jamison and Amiss St. and Blue Ridge Ave. has been awarded to CAMPBELL BROS.

✚**Greensboro, N. C.**—The contract for the construction of a main sewer has been awarded to J. E. ALBRIGHT.

Southern Pines, N. C.—An election will be held May 4 to vote on the question of issuing $20,000 in bonds for extending the sewer system. H. E. Foss is City Clk.

Warrenton, N. C.—An election will be held May 17 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

Fountain Inn. S. C.—(Official)—See item under "Water Supply-Irrigation."

★**Greenville, S. C.**—(Official)—Bids will soon be received by C. P. Bullenger City Engr., for constructing sewers and paving work. Estimated cost, $200,000.

West Palm Beach, Fla.—Bids will be received until May 7 by A. M. Lopez, City Clk., for the construction of a sewer system. The J. B. McCrary Co., 1408 Third National Bank Bldg., Atlanta, Ga., is Engr.

✚**Ella, Ala.**—The contract for the construction of sewers has been awarded to SULLIVAN, LONG & HAGGERTY, Bessemer, at $9709.

Mobile, Ala.—The city contemplates constructing a trunk line sewer in the Camp Ground District and in Fisher tract. Wright Smith is City Engr.

Northport, Ala.—An election will be held May 17 to vote on the question of issuing $16,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

Hammond, La.—An election will be held May 20 to vote on the question of issuing $40,000 in bonds, the proceeds of which will be used for the construction of a sewer system. Noted Apr. 22.

Cleveland, Tenn.—The city contemplates issuing $75,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

✚**Lookout Mountain, Tenn.**—The contract for the construction of a sewage-disposal plant at West Ave. and Lyerly St., has been awarded to A. W. INGLE & CO. Noted Nov. 12.

★**Cynthiana, Ky.**—(Official)—Bids will be received until May 10 by B. R. Myers, City Engr., for the construction of storm sewers.

Paducah, Ky.—(Official)—We are advised that an election will be held in the fall to vote on a bond issue of $200,000, the proceeds of which will be used for constructing a trunk sewer in the West End. George C. Wallace is Comr. Noted Apr. 15.

Paducah, Ky.—(Official)—Bids will soon be received by L. A. Washington, Comr. of Pub. Wks., for the construction of Section 1 of the Third District sewerage system.

Akron, Ohio—The Council has passed an ordinance authorizing a bond issue of $23,000, the proceeds of which will be used to complete the Sixth Ward trunk sewer.

✚**Alliance, Ohio**—The contract for the construction of a sewer in North Arch St. has been awarded to the F. A. DOWNS CONSTRUCTION CO., Canton, at $15,145. Noted Mar. 25.

Cincinnati, Ohio—Bids were received Apr. 14 by the Director of Public Service for improving the sewer system in Ludlow Run from Spring Grove Ave. to Ellis St., (a) brick and miscellaneous quantities, (b) concrete and miscellaneous quantities, as follows: Connelly Construction Co., (a) $35,703; M. J. McCarthy, (a) $36,102; Kirchner Construction Co., (a) $36,322, (b) $38,147; Shafor & Dill, Dayton, (a) $46,584, (b) $36,911; D. P. Foley, (a) $43,144, (b) $38,399; Thomas P. Strack, (a) $40,830; Welling & Franz, (a) $41,038; Harold A. Logan, (a) $42,168; Scully Bros., (a) $43,390, (b) $51,146; John B. McLane & Co., Newport, Ky., (a) $43,619; James Duff Construction Co., Cleveland, (a) $47,318, (b) $44,144; Henkel & Sullivan, (a) $44,660; John H. Cahill, Louisville, Ky., (a) $48,160, (b) $47,704; Cannell-Ames Construction Co., Columbus, (a) $49,744, (b) $49,744; John Ruebel Construction Co., (a) $51,429; Thomas Maloney, (a) $51,560; Ohio Valley Contracting Co., (a) informal.

Cincinnati, Ohio—Bids will be received until May 3 by the Director of Public Service for constructing sewers in Kling and Mignon Ave. Parke S. Johnson is Secy. Bd. of Pub. Ser.

Cincinnati, Ohio—Bids will be received until noon, May 3, by Philip Fosdick, Dir. Pub. Ser., City Hall, for the construction of sewers in Pine Tree, Julia Ann St. and King Ave.

Cleveland, Ohio—Bids will be received until noon, May 6, by the Commissioner of Purchases and Supplies, Room 511, City Hall, for the construction of sewers in East 65th St. between Hough and Euclid Ave., in St. Clair Ave. between London Rd. and City Limits, in Spring Rd. between Jennings and Broadview Rd., in Valley Rd. between Jennings and Broadview Rd. and in Jennings Rd. between Spring Rd. and Big Creek. Robert Hoffman is City Engr.

Lowellville, Ohio—All bids received by C. W. Baker, City Clk., for the construction of the south side sanitary sewer have been rejected. The work will be readvertised.

✚**Marion, Ohio**—Contracts for sewer work have been awarded as follows: P. DRAKE & SON, at $11,555, for constructing the North Main St., sewer; THOMAS HURLEY, at $13,395, for constructing the Park and Patten St. sewer; NOHBARGER & HOYLES, at $15,021, for constructing the Uncapher Ave. sewer; HOFFSTETTER & DAWSON, at $6120, for constructing the Park St. sewer. Noted Apr. 18.

Marion, Ohio—The city contemplates constructing sanitary and storm relief trunk sewers in Elm St. from the Church St. sewer to the Columbia St. sewer; also a sewer in Pleasant St. Estimated cost, $8500.

✚**Springfield, Ohio**—The contract for constructing sewers in Scioto and Kenton St. has been awarded to BOYD & COOK, Dayton, at $7872. CHARLES F. SMITH & CO., Dayton, has been awarded the contract for the construction of a sewer in South Main St. at $9342. Noted Feb. 25 and Apr. 1.

Toledo, Ohio—Bids will be received until noon, May 7, by Charles J. Sanzenbacher, Clk. Bd. of Comrs., for constructing the main sanitary sewer No. 11 in Sub-district No. 2. Herbert McKechnie is City Engr.

Youngstown, Ohio—Bids will be received until June 9 by Jonah Richards, Clk., for constructing storm and sanitary sewers. F. M. Lillie is City Engr.

✚**Crawfordsville, Ind.**—(Official)—The contract for the construction of vitrified pipe sewers has been awarded to NOLAN & JOHNSTON, at $6499. Other bidders were: Clements & Clements, $6651 and D. Y. Stout, $6736. Noted Apr. 8.

✚**Flint, Mich.**—The contract has been awarded to BARRETT & VITTARO, Wooster, Ohio, for the construction of a part of the proposed sewer work. Noted Mar. 25.

Grand Rapids, Mich.—(Official)—We are advised that the proposed sewer system will not be constructed this year as was noted in the issue of Apr. 22.

South Range, Mich.—The city contemplates the construction of a sewer system.

Aurora, Ill.—Bids will be received by the Board of Local Improvements until 2 p.m., Apr. 30, for constructing sanitary and storm sewers in various streets.

Chicago, Ill.—Bids will be received until 11 a.m., May 1, by L. E. McGann, Comr. of Pub. Wks., for the construction of sewers in Yates Ave.

★**Chicago, Ill.**—(Official)—Bids will be received until noon, May 7, by Thomas Rodd, Ch. Engr. of the Union Station Co., for constructing reinforced-concrete trunk sewers in Canal, Monroe and Clinton St. and concrete retaining and curb walls in Canal and Monroe St.

Pana, Ill.—Bids will be received until 3 p.m., Apr. 30, by the Board of Local Improvements for the construction of a sewage treatment plant. A. C. Stanfield is City Engr. Noted Apr. 8.

Rockland, Ill.—The city contemplates constructing sewers in 32d, 33d and 34th St. from 18th to 19th and 20th Ave. from 24th to Richmond St.

Green Bay, Wis.—Bids will be received until May 4 by J. Shaughnessy, Chn. of Com. on Sewers, for constructing 12-, 24-, 30-, 36-, and 42-in. sewers in Irwin St. Noted Dec. 31.

✚Janesville, Wis.—The contract has been awarded to G. W. MULHOLLAND, Milwaukee, for the construction of sewers in Sewerage Districts 5, 10, 11, 14 and 15. Noted Jan. 14 and Apr. 1. Bids were opened Apr. 16.

✚Kenosha, Wis.—The Board of Public Works has awarded the contract to THORNTON BROS., St. Paul, Minn., at $114,678, for constructing a new trunk sewer system.

Milwaukee, Wis.—The State Senate has passed a bill authorizing the city to issue $2,000,000 in bonds, the proceeds of which will be used for the construction of a sewage-disposal plant. The entire plant is estimated to cost $10,000,000 and will be completed in about six years. Noted Mar. 11 and Apr. 15. Chalkley Hatton is Ch. Engr.

★Milwaukee, Wis.—(Official)—Bids will be received until May 14 by the Public Sewerage Commission for constructing intercepting sewers on the east and west sides of the Milwaukee River. Under the original call for bids the contract was awarded to Jones & Erbrek, Pittsburgh, Penn., but has been rescinded. The estimated cost is approximately $500,000. T. Chalkey Hatton is Ch. Engr. Noted Mar. 11 and Apr. 15.

✚Monroe, Wis.—The contract for the construction of sewers has been awarded to T. W. QUINN, Madison.

Oshkosh, Wis.—Bids will be received until 2 p.m., Apr. 30, by the Board of Public Works for the construction of a sewer in Lake Drive.

Platteville, Wis.—The city contemplates constructing 5000 ft. of sanitary sewers.

West Allis, Wis.—Plans are being prepared by the City Engineer for the construction of storm sewers in Lapham and Elm St., and in Summit, Worden, Grant and 49th Ave.

Decorah, Iowa—The city will award the contract for the construction of a sewer system about June 15.

✚Postville, Iowa—(Official)—Bids were received Apr. 1 by the City Clerk for the construction of a sewer system as follow: M. TSCHIRGI & SONS, Cedar Rapids, $26,985 (awarded contract); F. C. Young, Iowa City, $28,130; C. B. McNamara & Co., Dubuque, $29,338; W. C. Fraser, St. Paul, Minn., $31,742; Thill, Manning, Whalen Co., La Crosse, Wis., $35,569; M. A. Camery, Harlan, $30,473; Sweeney Bros., Reedsburg, Wis., $30,100; Townsend B. Smith, Evanston, Ill., $27,099; Thomas Covey & Sons, Clinton, $27,891; H. J. Cathroe, Omaha, Neb., $27,498; Dearborn Construction Co., Cedar Rapids, $28,912. T. E. Green, Aetna Engineering Bureau, Chicago, Ill., is Engr. Noted Oct. 8, Nov. 12, Jan. 21 and Mar. 25.

✚Rockwell City, Iowa—The contract for the construction of storm sewers has been awarded to BEAUMONT STONEBRAKER, at $11,915.

✚State Center, Iowa—The contract has been awarded to COLE BROS., Ames, at $19,843, for the construction of a sanitary sewer system. Noted Apr. 1.

Eveleth, Minn.—It is reported that the city contemplates constructing a septic tank estimated to cost $20,000.

New Ulm, Minn.—Bids will be received until May 5 by William Backer, City Clk., for constructing sewers in Broadway, German, Minnesota, Washington, Sixth and Fourth St. F. D. Minium is City Engr.

✚St. Cloud, Minn.—The contract for the construction of sewers in District No. 6 requiring 10,063 ft. of 8- to 15-in. pipe sewers, 28 manholes and four flush tanks has been awarded to H. J. CATHROE Omaha, Neb. Noted Apr. 1.

Valley Falls, Kan.—(Official)—Bids will be received until 2 p.m., May 11, by T. W. Gardiner, City Clk., for the construction of a sewer system and a sewage-disposal plant. The estimated cost is $43,000. Noted Apr. 22.

Howard, S. D.—(Official)—Bids will be received until 8 p.m., May 12, by the City Council for the purchase of $24,000 in bonds, the proceeds of which will be used for the construction of sewers. Noted Feb. 4.

✚Roundup, Mont.—The contract for the construction of a sewer system has been awarded to the SECURITY BRIDGE CO., at $25,215. Noted Sept. 1, Oct. 29, Jan. 7 and Mar. 25.

Siloam Springs, Ark.—Bids will be received until 2:30 p.m., May 12, by R. J. Alfrey, Secy. Bd. of Imp., Sewer District No. 1, for the construction of a sanitary sewer system. Winters & Dove, Ft. Smith, Ark., is Engr. Noted Mar. 25.

Hillsboro, Tex.—At a recent election the citizens defeated the question to issue $5000 in bonds, the proceeds of which was to have been used for constructing sewers.

Temple, Tex.—The city plans to extend the sanitary sewer system. The estimated cost is $10,000. R. D. Morgan is City Engr.

✚Texarkana, Tex.—The contract has been awarded to W. T. JORDAN for extending the sewers in District No. 3 and for the construction of a septic tank. The estimated cost is $14,000. Noted Dec. 31 and Apr. 22.

Salt Lake City, Utah—Bids will be received until 10 a.m., May 11, by the Board of Commissioners for constructing sewers in Elders Court from Third to Fourth West St., Extension No. 346, and in Block 31, Plat E from Wall St. E., to Girard and Clinton Ave. Extension No. 348. S. Q. Cannon is City Engr.

Mesa, Ariz.—An election will be held May 18 to vote on the question of issuing bonds for the installation of a sewer system.

Seattle, Wash.—Plans have been prepared by A. H. Dimock, City Engr., for the construction of a sewer in Ballard Ave. and in Market St. The estimated cost is $25,000.

Spokane, Wash.—The lowest bids submitted for the changes in three groups of sewers in connection with the Northern Pacific grade separation work were as follows: W. J. Hoy & Co., $25,500; Heikkila, Miller & Luoto, $1946 and $1885. Noted Apr. 1.

✚Tacoma, Wash.—The contract has been awarded to the PACIFIC SEWER & WATERMAIN CONSTRUCTION CO., at $10,744, for the construction of a sewer in East D St.

Seaside, Ore.—The city contemplates constructing sewers in Third Ave. and other streets.

Calistoga, Calif.—The lowest bid submitted for the construction of a sewer system was that of Burdwell & Dillerman, at $14,200.

San Francisco, Calif.—M. M. O'Shaughnessy, City Engr., has recommended an appropriation for sewer work as follows: Islais Creek sewer, $50,000; Fifth St. sewer, $87,000; Stanley St. sewer and outlet, $35,000; College Hill tunnel, $100,000; South Bay View sewer, $50,000; Laguna Puerca sewer, $125,000; Seventh Ave. extension sewer, $10,000 and a new sewer and outlet in Fillmore St., $175,000.

Stockton, Calif.—The city contemplates constructing sewers in Sonoma, Mendocino, Monterey, North Hunter, North San Joaquin and North Sutter St. at an estimated cost of $6601; also in the district bounded by Lincoln, Edison, Taylor & South St. H. T. Compton is City Engr.

GARBAGE

✚★Wilmington, Del.—The contract has been awarded to the AMERICAN REDUCTION CO., Newark, N. J., by the city for the disposal of garbage. Noted Mar. 4.

Newport, Ky.—The construction of a garbage crematory is under consideration. The estimated cost is $20,000.

Beloit, Wis.—The construction of a garbage-disposal plant is under consideration.

Lincoln, Neb.—(Official)—An election will be held May 4 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for the disposal of garbage. T. H. Berg is City Clk. Noted Apr. 15.

✚San Antonio, Tex.—The contract has been awarded to the DE CARIE CO., at $11,985, by the City Council for constructing an incinerator. Noted Oct. 8 and Dec. 31.

STREETS AND ROADS

Boston, Mass.—Bids were received Apr. 22 for paving Summer St. from Washington to South St. with wood blocks as follows: James H. Fannon, 28 Hinckley St., Somerville, $22,785; Hugh Nawn Contracting Co., 82 Savin St., Roxbury, $21,408; Rowe Contracting Co., 1607 Commonwealth Ave., Brighton, $21,253; James Doherty, 133 Calumet St., Roxbury, $20,350; Coleman Bros., 1 Marginal St., Chelsea, $19,245; Clark & Gore, 191 Eighth St., South Boston, $19,183; Northern Construction Co., 99 West Cedar St., Boston, $18,666. Noted Apr. 15.

✚Boston, Mass.—The contract for the construction of 11,000 lin.ft. of state road in Amherst and Hadley has been awarded by the Highway Commission to the LANE CONSTRUCTION CO., Meriden, Conn., at $12,465. Other bids were: F. E. Ellis, Melrose, $12,607; R. F. Hudson, Melrose, $13,3390; B. E. Savage, Worcester, $13,668.

Boston, Mass.—Bids will be received until May 4 by the Highway Commission for the construction of roads as follows: 10,400 lin.ft. in Methuen and Lawrence; 6500 lin.ft. in Deerfield; 10,900 lin.ft. in Whitman, Abington and Brockton; 15,000 lin.ft. in Swampscott and Salem; 10,100 lin.ft. in Shrewsbury.

✚Boston, Mass.—The contract for the construction of 4400 lin.ft. of state road in Northbridge has been awarded by the Highway Commission to the J. J. McCARTHY CORPORATION Boston, at $11,692: Other bids were: Alco Construction Co., Boston, $12,167; A. Williams, Boston, $12,254; Middlesex Contracting Co., North Adams, $12,834; O. W. Ruckle, Providence, R. I., $12,892; E. R. Nowell, Uxbridge, $12,939; C. A. Kelly, Somerville, $13,443; D. J. Sheehan, Lynn, $13.845; Concrete Construction Co., Boston, $14,447; Susi & Williams, Boston, $14,744; Sewell, Small & Ingalls, Bar Harbor, Maine, $15,175. Noted Apr. 15.

✚Boston, Mass.—Bids were received Apr. 20 for 9600 lin.ft. of state road in South Hadley as follows: (a) mixed method, (b) penetration method; LANE CONSTRUCTION CO., Meriden, (a) $26,830, (b) $23,380 (awarded contract); D. O'Connell, Holyoke, (a) $31,529, (b) $29,325; W. T. Davis, Brookline, (a) $33,710, (b) $28,490; Middlesex Contracting Co., North Adams, (a) $36,040, (b) $26,760. Noted Apr. 15.

✚Boston, Mass.—The contract for the construction of 15,700 lin.ft. of state road in Greenfield has been awarded by the State Highway Commission to R. F. HUDSON, Melrose, at $7580. Other bids were: F. E. Ellis, Melrose, $7902; Lane Construction Co., Meriden, Conn., $8095; C. E. Horne, Millbury, $8101; E. R. Newell, Uxbridge, $10,195. Noted Apr. 15.

Gloucester, Mass.—Bonds for $30,000 have been sold, the proceeds of which will be used for highway improvements.

✚Pittsfield, Mass.—The Board of Public Works has awarded contracts for paving West St. and West Hoosatonic St. with brick to WEED & WALSH, at $13,033, and Woodleigh Ave. to O. T. BENEDICT, at $5525.

Providence, R. I.—Bids will be received until noon, May 3, by the State Board of Public Roads for about 450,000 gal. road oil. John F. Richmond is Chn. of Bd.

Hartford, Conn.—Bids for state road work were received by the State Highway Commissioner, Apr. 19, as follows: Wethersfield Township, about 101 lin.ft. 6-in. bituminous macadam on the Hartford Turnpike. This is a cut-off road and involves 8100 cu.yd. of borrowed fill and 1800 sq.yd. of 6-in. bituminous macadam surfacing: Pierson Engineering & Construction Co., Hartford, $9065; Frank Arrigoni & Bro., Middletown, $9600; A. C. Sternberg, Jr., Construction Co., West Hartford, $8397; Thomas Kearney, Meriden, $8415; Leonardo Suzio, Meriden, $7914; John DeMichiel & Bro., Torrington, $8246; Louis Longhi & Bro., Torrington, $8970. Old Lyme Township, about 8690 lin.ft. native stone macadam: B. D. Pierce, Jr., Co., Bridgeport, $16,280; A. D. Bridge's Sons, Inc., Hazardville, $15,704; Frank Arrigoni & Bro., Middletown,

$20,151; Connecticut Good Roads & Construction Co., New Britain, $17,116; John DeMichiel & Bro., Torrington, $16,828; Archie B. Cadwell, New Britain, $17,380; John Arborio, Congress Ave., New Haven, $15,687; Donahue Bros., Middletown, $22,337; Louis Longhi & Bro., Torrington, $20,379; Goodman & Trumbull Co., Litchfield, $18,164. Hampton Township, about 2975 lin.ft. native stone macadam: John Arborio, Congress Ave., New Haven, $6629. Rocky Hill Township, about 1225 lin.ft. concrete road with (a) unwashed or (b) washed sand, on the Hartford and Saybrook Turnpike. This work includes a 16-ft. span reinforced-concrete bridge: Frank Arrigoni & Bro., Middletown, (a) $12,201, (b) $12,359; Connecticut Good Roads & Construction Co., New Britain, (a) $10,726, (b) $10,805; Leonardo Suzio, Meriden, (a) $10,306, (b) $10,411; A. C. Sternberg, Jr., Co., West Hartford, (a) $9717, (b) $9717; B. D. Pierce, Jr., Co., Bridgeport, (a) $10,233, (b) $10,416; Calvin C. Robinson, 422 Front St., New Haven, (a) $11,945, (b) $12,155; Louis Longhi & Bro., Torrington, (a) $10,138, (b) $10,295; John De Michiel & Bro., Torrington, (a) $10,525, (b) $10,656; Benadetta & Tomassetti, Hartford, (a) $14,690, (b) $14,690. Noted Apr. 15.

✚★**Albany, N. Y.**—(Official)—Bids were received Apr. 20 by Edwin Duffey, State Highway Comr., and contracts awarded for repairing public highways by State Aid as follows:

Repair Contract No. 705, Road No. 365, Albany County: C. S. Mathusa, Albany, $8845; Highway Engineering Co., Albany, $8193; J. J. Malloy, Schenectady, $8439; Alonzo Schaupp, Guilderland, $8286; Raymond Horne, New York, $8338; Brown & Lowe Co., Schenectady, $8835; John P. Dugan & Co., Amsterdam, $8609. Award withheld.

Repair Contract No. 695, Road No. 265, 5338-A, Broome County: F. P. Meckes, Long Pond, Penn., $10,939; McGreevey, McGuigan & Baum, Elmira, N. Y., $10,127; Rhodes & Adams, Smithville, $10,723; Harold J. Shields, Albany, $10,919; George Holler, Albany, $9911; C. S. Mathusa, Albany, $10,559; I. B. Contracting Corporation, New York, $10,153; Ruddy-Saunders Construction Co., Troy, $10,353. Award withheld.

Repair Contract No. 694, Road No. 5216, Chenango County: Rhodes & Adams, Smithville, $2677; De Barber & Hill, Fulton, $2517; Nash & Griffin, Norwich, $2883; Paddleford & King, Sherburne, $2675; Harold J. Shields, Albany, $2676; Richard Hopkins, Troy, $2637; George Holler, Albany, $2291; I. B. Contracting Corporation, New York, 2483. Award withheld.

Repair Contract No. 707, Road No. 259, Clinton County: Harold J. Shields, Albany, $34918; Bluff Point Stone Co., Plattsburg, $34,590; Spellman-Oliver Co., Chateaugay, $35,331; John F. Lewis, Albany, $30,435; Boynton & McNally, Keeseville, $33,209; James Conway, Plattsburg, $35,290; Flood & Van Wirt Co., Hudson Falls, $34,643. Award withheld.

Repair Contract No. 691, Road No. 217, Delaware County: Schunnemunk Construction Co., Highland Mills, $2184; Lyden Contracting Corporation, Albany, $2183; I. B. CONTRACTING CORPORATION, New York, $1941 (awarded contract); George Holler, Albany, $2101; Harold J. Shields, Albany, $2275; C. S. Mathusa, Albany, $2166.

Repair Contract No. 706, Road No. 658, Essex County: Harry W. Roberts & Co., Utica, $23,465; Brown & Lowe Co., Schenectady, $25,141; Santanoni Contracting Co., Inc., Newcomb, $21,450; JAMES E. MARTIN, Utica, $26,991 (awarded contract); Flood & Van Wirt Co., Hudson Falls, $21,934; W. L. Lawton, Glens Falls, $20,951; Langan Construction Corporation, Albany, $23,382.

Repair Contract No. 611, Road No. 430, Onondaga County: Chas. E. Hanny, Camillus, $5602; Thomas Hucknall & Co., Albion, $6054; Phelan & Sullivan, Utica, $6181; Monroe Roads Co., Pittsford, $6182; Bison City Engineering & Contracting Co., Inc., Buffalo, $5923; Flood & Van Wirt Co., Hudson Falls, $5898; Harold J. Shields, Albany, $5950; PATHFINDER CONSTRUCTION CO., INC., Fulton, $5471 (awarded contract).

Repair Contract No. 898, Road No. 329, Onondaga County: Pathfinder Construction Co., Inc., Fulton, $8774; CHARLES E. HANNEY, Camillus, $8655 (awarded contract); J. H. Weidman, Syracuse, $9349; Harold J. Shields, Albany, $9148; Flood & Van Wirt Co., Hudson Falls, $9266; Phelan & Sullivan, Utica, $9438; Thomas F. Murray, Le Roy, $9278; Monroe Roads Co., Pittsford, $9470.

Repair Contract No. 699, Road No. 431, Onondaga County: PATHFINDER CONSTRUCTION CO., INC., Fulton, $9565 awarded contract); Monroe Roads Co., Pittsford, $10,855; Phelan & Sullivan, Utica, $11,094; Thomas Hucknall & Co., Albion, $10,652; Thomas F. Murray, Le Roy, $11,051; Flood & Van Wirt Co., Hudson Falls, $10,721; Harold J. Shields, Albany, $10,662.

Repair Contract No. 700, Road No. 539, Oswego County: J. H. Weidman, Syracuse, $11,590; F. N. Hunter, Sterling, $11,559; De Barber & Hill, Fulton, $11,420; PATHFINDER CONSTRUCTION CO., INC., Fulton, $9754 (awarded contract); Paddleford & King, Sherburne, $10,721; Fulton Engineering Co., Inc., Albany, $11,064; Thomas Hucknall & Co., Albion, $10,549; Bison City Engineering & Contracting Co., Inc., Buffalo, $9854.

Repair Contract No. 697, Road Nos. 317, 318, 319, 675, Otsego County: John P. Dugan Co., Amsterdam, $12,025; C. S. Mathusa, Albany, $11,384; George Holler, Albany, $9971; Richard Hopkins, Troy, $11,821; I. B. Contracting Corporation, New York, $11 632; Edward Hartney, Modena, $10,580; De Barber & Hill, Fulton, $11,123; Sherman Contracting Co., Inc., Oneonta, $11,746; Dana W. Robbins, Inc., New York, $11,808; Paddleford & King, Sherburne, $11,843. Award withheld.

Repair Contract No. 709, Road No. 84, Rensselaer County: George Holler, Albany, $12,704; Helmar Contracting Co,. Inc., Troy, $12,795; C. W. TRYON, Boyntonville, $11,927 (awarded contract); Flood & Van Wirt Co., Hudson Falls, $13,124; Thomas H. Karr, Troy, $12,302; Harold J. Shields, Albany, $12,969.

Repair Contract No. 708, Road Nos. 244, 443, Saratoga County: Brown & Lowe Co., Schenectady, $21,171; F. A. Biggin, Brooklyn, $21,496; Flood & Van Wirt Co., Hudson Falls, $21,014; W. L. Lawton, Glens Falls, $20,458; Harry W. Roberts & Co., Utica, $21,315; WILLIAM J. MORRISSEY, Saratoga, $20,193 (awarded contract); Thomas Leonard, Saratoga Springs, $20,503.

Repair Contract No. 692, Road No. 5089, Schoharie County: Fred Westfall, Schoharie, $6938; Lyden Contracting Co., Albany, $6811; The Curran Corporation, Middletown, Conn., $6826; George Holler, Albany, $5592; Richard Hopkins, Troy, $6986; C. S. Mathusa, Albany, $6604; I. B. Contracting Corporation, New York, $6409; John P. Dugan & Co., Amsterdam, $7492. Award withheld.

Repair Contract No. 702, Road No. 320, Seneca County: J. W. Brennan Construction Co., Inc., Geneva, $24,804; Wood & Tompkins, Hilton, $23,828; Thomas Hucknall & Co., Albion, $23,978; J. H. Weidman, Syracuse, $24,244; Schroder Hicks Contracting Co., Rochester, $24,387; Monroe Roads Co., Pittsford, $23,677; THOMAS F. MURRAY, Le Roy, $21,324 (awarded contract); James E. Martin, Utica, $26,109; Flood & Van Wirt Co., Hudson Falls, $22,860; Bison City Engineering & Contracting Co., Inc., Buffalo, $24,015.

Repair Contract No. 696, Road No. 699, Sullivan County: Eggleston & Garthwaite, Yonkers, $12,935; RUDDY SAUNDERS CONSTRUCTION CO., Troy, $12,445 (awarded contract); John A. Jova, Inc., Newburgh, $12,084; G. C. Bonnell, Liberty, $12,892; Blankfield & Donovan, Kingston, $13,054; Southern Dutchess Construction Co., Beacon, $12,997; Harold J. Shields, Albany, $13,878.

Repair Contract No. 704, Road No. 693, Suffolk County: H. J. Mullen Contracting Co., Inc., Jamaica, $17,444; J. J. Guinan Contracting Co., Brooklyn, $16,343; Gifford Construction Co., Jamaica, $17,904; John K. Hayes Construction Co., Yonkers, $16,884; James Garafano & Son, Inc., Mt. Vernon, $17,782; Heling Bros., Lindenburst, $18,823; Eggleston & Garthwaite, Yonkers, $17,943. Award withheld.

Repair Contract No. 710, Road No. 736, Warren County: William L. Sherrill, Hudson Falls, $21,803; Brown & Lowe Co., Schenectady, $23,693; James E. Martin, Utica, $24,049; Santononi Contracting Co., Inc., Newcomb, $20,334; Flood & Van Wirt Co., Hudson Falls, $21,117; Langan Construction Co., Albany, $21,529; W. L. LAWTON, Glens Falls, $19,907 (awarded contract); Harry W. Roberts & Co., Utica, $22,954.

Repair Contract No. 703, Road No. 5290, Wayne County: Bison City Engineering & Contracting Co., Inc., Buffalo, $3361; James F. Leary Construction Co., Inc., Rochester, $3316; I. B. Contracting Corporation, New York, $3718; I. M. Ludington Sons, Inc., Rochester, $3711; De Barber & Hill, Fulton, $3646; Pathfinder Construction Co., Inc., Fulton, $3550; J. H. Weidman, Syracuse, $4142; Richard Hopkins, Troy, $3793; Fred D. Dutcher, Fulton, $3650; Sweeney & Boland, Rochester, $3000. Award withheld.

Repair Contract No. 711, Road No. 854, Wyoming County: T. M. Quinn, Rochester, $9752; Brooks & Julian, Rochester, $9009; McCarthy & Wall, Mt. Morris, $8572; John Johnson Construction Co., Buffalo, $9246; I. M. Ludington Cons, Inc., Rochester, $8817; Thomas F. Murray, Le Roy, $8796; James Rossney, Buffalo, $8910. Award withheld. Noted Apr. 1.

★**Albany, N. Y.**—(Official)—Bids will be received until 1 p.m., May 18, by Edwin Duffey, State Highway Comr., for repairing highways in various counties.

★**Albany, N. Y.**—(Official)—Bids were received Apr. 26 by Edwin Duffey, State Highway Comr. for furnishing bituminous material to various counties as follows:

Bituminous Material Contract No. 1, Division No. 1: Barber Asphalt Paving Co., $9745; Atlantic Refining Co., $27,917; Standard Oil Co. of New York, $25,597; Warner-Quinlan Asphalt Co., $31,105; John Baker, Jr., $25,244.

Bituminous Material Contract No. 2, Division No. 1: Barrett Mfg. Co., $45,880.

Bituminous Material Contract No. 3, Division No. 1: United Gas Improvement Co., $2996; Barrett Mfg. Co., $2790.

Bituminous Material Contract No. 4, Division No. 2: Warner-Quinlan Asphalt Co., $14,477; Standard Oil Co. of New York, $13,386; Barber Asphalt Paving Co., $22,023; John Baker, Jr., $12,891; Atlantic Refining Co., $13,664.

Bituminous Material Contract No. 5, Division 2: Barrett Mfg. Co., $2275.

Bituminous Material Contract No. 6, Division No. 3: Warner-Quinlan Asphalt Co., $1842; John Baker, Jr., $1734; Atlantic Refining Co., $1746; Barber Asphalt Paving Co., $2002; Standard Oil Co. of New York, $1797.

Bituminous Material Contract No. 7, Division No. 3: Barrett Mfg. Co., $3936.

Bituminous Material Contract No. 8, Division No. 4: Atlantic Refining Co., $11,799; Barber Asphalt Co., 8730; Standard Oil Co., $11,798; John Baker, Jr., $11,241; Warner-Quinlan Asphalt Co., $13,312.

Bituminous Material Contract No. 9, Division No. 4: Barrett Mfg. Co., $2395.

Bituminous Material Contract No. 10, Division No. 5: Warner Quinlan Asphalt Co., $12,539; John Baker, Jr., $11,167; Atlantic Refining Co., $11,598; Barber Asphalt Paving Co., $11,180; Standard Oil Co., of New York, $11,396.

Bituminous Material Contract No. 11, Division No. 5: Barrett Mfg. Co., $2352.

Bituminous Material Contract No. 12, Division No. 6; Atlantic Refining Co., $5606; Barber Asphalt Co., $9669; Standard Oil Co. of New York, $5699; Warner-Quinlan Asphalt Co., $6234; John Baker, Jr., $5582.

Bituminous Material Contract No. 13, Division No. 6: Barrett Mfg. Co., $8543.

Bituminous Material Contract No. 14, Division No. 7: Barber Asphalt Paving Co., $2440; Atlantic Refining Co., $3085; John Baker, Jr., $3192; Warner-Quinlan Asphalt Co., $3493; Standard Oil Co. of New York, $3240.

Bituminous Material Contract No. 15, Division No. 7: Barrett Mfg. Co., $3204.

Bituminous Material Contract No. 16, Division No. 7: United Gas Improvement Co., $1459; Barrett Mfg. Co., $1378.

Bituminous Material Contract No. 17, Division No. 8: Atlantic Refining Co., $5624; Barber Asphalt Paving Co., $10,271; Standard Oil Co. of New York, $5632; Warner-Quinlan Asphalt Co., $6235; John Baker, Jr., $5538.

Bituminous Material Contract No. 18, Division No. 8: Barrett Mfg. Co., $2283.

Bituminous Material Contract No. 19, Division No. 9: Warner-Quinlan Asphalt Co., $7742; John Baker, Jr., $6441; Standard Oil Co. of New York, $6660; Barber Asphalt Paving Co., $12,026; Atlantic Refining Co., $6544.

Bituminous Material Contract No. 20, Division No. 9: Barrett Mfg. Co., $2723. Noted Apr. 15.

✚**Auburn, N. Y.**—The contract for paving Franklin, Chapel St. and Ave. A has been awarded to BRAYER BROS., at $44,000.

Massena, N. Y.—Bids will be received until May 3 for the sale of $12,000 in bonds, the proceeds of which will be used for improving streets.

Newburgh, N. Y.—(Official)—Bids will be received until May 4 by D. J. Coutant, City Clk., for paving Cochecton Turnpike.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 10:30 a.m., May 6, by Douglas Mathewson, Borough Pres., for paving East 174th St. from Southern Blvd. to Bryant Ave. and East 167th St. from West Farms Rd. to the intersection of Westchester and Longfellow Ave.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., May 5, by L. H. Pounds, Borough Pres., for improving Argyle Rd. from Church to Caton Rd., Belmont Ave. from Van Sinderen to Snediker Ave. and from Alabama to Pennsylvania Ave., Louisa St. from Chester Ave. to 36th St., Newport St. from Snediker to Alabama Ave., President St. from Nostrand to Rogers Ave., Saratoga Ave. from Livonia Ave. to East 98th St., Webster Ave. from Gravesend Ave. to 47th St., 12th Ave. from 36th to 38th St., and 21st St. from 60th to 64th St.

✚New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract for improving Front Ct. from Fulton to Adams St. has been awarded to CHARLES A. MYERS CONSTRUCTING CO., at $8599. Noted Apr. 8 and 22.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Apr. 21 for improving (a) East 10th St. from Ave. N to Ave. O, (b) East 12th St. from Ave. R. to Ave. S, (c) 38th St. from 10th to Ft. Hamilton Ave., as follows: Brooklyn Alcatraz Asphalt Co., (a) $4236, (b) $4056, (c) $3910; Topeka Paving Co., (a) $4497, (b) $4297, (c) $4311; Cranford Co., (a) $4633, (b) $4433, (c) $4283; Sicilian Asphalt Paving Co., (a) $4602, (b) $4401, (c) $4222; Uvalde Asphalt Paving Co., (a) $4633, (b) $4428, (c) $4281; Barber Asphalt Paving Co., (a) $5209, (b) $5218, (c) $4965. Noted Apr. 15.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., May 5, by Marcus M. Marks, Borough Pres., for improving Market St. from Cherry St. to East Broadway, Monroe St. from Pike to Market St., 13th St. from Ave. A to Third Ave., 30th St. from Eighth to Ninth Ave., 32d St. from Second to Third Ave., 40th St. from Second to Lexington Ave., 176th St. from Audubon to St. Nicholas Ave., Houston St. from Lafayette to Crosby St., 27th St. from Tenth to 11th Ave., 32d St. from First to Second Ave., and 40th St. from First to Second Ave.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 3 p.m., May 6, by the Park Board for surfacing the City Island Rd. from the Eastern Blvd. to the City Island bridge in Pelham Bay Park.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m., May 5, by Maurice E. Connolly, Borough Pres., for improving Sunwick St. from Wilbur to Payntar Ave., Washington Pl. from Academy St. to Jackson Ave., Van Dain St. from Thomson Ave. to the summit southwest of Star Ave., North Henry St. from Flushing to Newtown Ave. and 11th Ave. from Grand Ave. to Newton Rd.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids were received Apr. 20 for improving Belmont Pl. from Vine St. to Fort Pl. as follows: C. Vanderbilt, $5069; Barber Asphalt Co., $5147; Joseph Johnson Sons, $4467; J. E. Donavan, $5178. Noted Apr. 15.

✚North Tonawanda, N. Y.—The contract for paving Robinson St. and Rumbold Ave. has been awarded to LOUIS H. GIPP, Buffalo, at $30,026.

✚Port Jervis, N. Y.—(Official)—The contract for paving Jersey Ave. has been awarded to the PORT JERVIS CONSTRUCTION CO., at $18,127. Noted Apr. 15.

✚Rochester, N. Y.—The contract for paving Argo St. with asphalt has been awarded to WHITMORE, RAUBER & VICINUS, $8500.

Belleville, N. J.—The Town Commission plans to improve Greylock and Belmont Ave. with bitulithic and Heckle St. with roman road pavement.

✚Camden, N. J.—The Board of Freeholders has awarded a contract for the improvement of the King's Highway, between the railroad and Westville Pike, to the J. F. SHANLEY CO., Philadelphia, at $10,472.

✚Camden, N. J.—(Official)—Contracts have been awarded for improving Carter's Pl. to AARON WARD & SON, Eighth and Division St., Camden, at $2.97 per sq.yd.; Sixth and Division St. to W. P. CARSON, 506 Haddon Ave., at $2.75 and $2.97 per sq.yd. respectively. Noted Apr. 15.

Englewood, N. J.—(Official)—Bids will be received until 2 p.m., May 14 by the Board of Chosen Freeholders of Bergen County, Hackensack, for improving a portion of Forest Ave. from the Englewood city line and extending to Lafayette Ave., and Lafayette Ave. from Forest Ave. to Palisade Ave.

Hackensack, N. J.—(Official)—Bids will be received until 1 p.m., May 28, by the Board of Chosen Freeholders of Bergen County for the improvement of the Teaneck Rd. from the Fort Lee Turnpike to Cedar Lane, Schroalenburgh Rd. and Washington Ave. from Forest Ave. to the northerly line of Haworth Borough.

✚Maplewood, N. J.—The Township Committee has awarded a contract to the BARRETT MFG. CO. for 40,000 gal. of tarvia and road oil.

Newark, N. J.—Bids were received Apr. 22 for paving (a) Henderson St. from Renner to Lyons Ave., (b) Ferdinand St. from Grove to South 20th St., (c) Chester Ave. from Fifth St. to city line, (d) Elm Rd. from Tyler to Gotthardt St. as follows: Northern Construction Co., (a) $13,477, (b) $4008, (c) $21,806, (d) $15,369; Standard Bitulithic Co., (a) $13,383, (b) $3995, (c) $21,905, (d) $15,414; Van Keuren & Son, (a) $13,421, (b) $4013, (c) $22,270, (d) $15,228; Newark Paving Co., (a) $13,088, (b) $3903, (c) $22,173, (d) $15,511; Jackson Contracting Co., (a) $13,050, (b) $3940, (c) $22,092, (d) $15,243; Ralph Langrovamin, (c) 21,685, (d) $14,836.

New Brunswick, N. J.—The Board of Freeholders has authorized Alvin B. Fox, County Engr., Perth Amboy, to prepare plans for the improvement of highways as follows: St. George's Ave., Old Bridge Turnpike, and the South Amboy-Morgan-Keyport Rd.

✚Plainfield, N. J.—(Official)—A contract for constructing concrete pavements has been awarded to the WELDON CONTRACTING CO., Rahway, at $4635. Noted Mar. 25 and Apr. 15.

Princeton, N. J.—The Borough Council plans to pave Nassau St. from Bayard Lane to Washington St.

Mt. Pleasant, Penn.—Bids will be received until 8 p.m., May 3, by Avery S. Overholt, Borough Secy., for paving East Washington St.

✚★Scottdale, Penn.—(Official)—The contract for grading, curbing and paving Pittsburgh, Hickory, Grove and Brooks St. has been awarded to LUTHER F. EDWARDS, Greensburg, at $23,000. Noted Apr. 15.

Washington, Penn.—(Official)—Bids will be received until 1 p.m., May 11, by T. J. Underwood, County Controller of Washington County, for constructing county roads with necessary culverts and small bridges.

Salisbury, Md.—(Official)—Bids will be received until noon, May 7, by the Commissioners of Wicomico County for building a section of State Aid highway in Wicomico County, upon or along the Riverside Rd., between Salisbury and Tony Tank Creek bridge. H. M. Clark is Rd. Engr.

✚Wytheville, Va.—The contract for macadamizing 3½ miles of roadway from Porters Cross Rd. to Mill Creek Rd. has been awarded to J. KENT WARDEN, Pulaski, at $16,448.

Huntington, W. Va.—The County Court has decided to hold an election for the purpose of voting on the question of issuing $600,000 in bonds, the proceeds to be used for paving roads, May 29 instead of May 22, as previously noted. Noted Feb. 15, Apr. 8 and 22.

Jackson, N. C.—Bids will be received until 10 a.m., May 18, for the sale of $16,000 in bonds, the proceeds of which will be used for constructing roads in Jackson Township.

Nashville, N. C.—An election will be held May 15 to vote on the question of issuing $15,000 in bonds, the proceeds to be used for constructing roads in North Whitakers Township, Nash County.

Roxboro, N. C.—The citizens of Person County will vote May 11 on the question of issuing $75,000 in bonds, the proceeds to be used for constructing roads in Roxboro Township.

★Anderson, S. C.—(Official)—Bids will be received until noon, May 11, by the Board of Paving Commissioners for paving approximately 75,000 sq.yd.. W. A. Sanders is City Engr.

★Charleston, S. C.—(Official)—Bids will be received until 1 p.m., May 18, by J. H. Dingle, City Engr., for paving approximately 65,000 sq.yd.

★Greenville, S. C.—(Official)—See item under "Sewers."

Brooksville, Fla.—Hernando County contemplates an expenditure of $250,000 for rock roads to be constructed by county force. The Jaudon Engineering Co., Savannah, Ga., is Engr.-in-Charge.

Miami, Fla.—At the election held Apr. 20 the citizens voted in favor of issuing $100,000 in bonds, the proceeds of which will be used for constructing the Ingraham Highway. Noted Apr. 15.

West Palm Beach, Fla.—Bids will be received until May 7 by A. M. Lopez, City Clk., for improving a number of streets.

Linden, Ala.—Bids will be received until May 11 by the Commissioners of Marengo County for grading, draining and surfacing with gravel a section of the county road.

✚Tuskegee, Ala.—The contract for graveling two miles of Main St. has been awarded to the THORPE CONSTRUCTION CO.

Baton Rouge, La.—Bids will be received by the Commission Council, Baton Rouge, until noon, May 12, for laying approximately 170,000 sq.yd. of bituminous gravel pavement, with concrete curb and gutter; also 22,000 sq.yd. of hard surface pavement. John J. Mundinger is City Engr.

Franklin, La.—Bids will be received until 1 p.m., May 17, by the Road Commission of St. Mary Parish for the construction of approximately 50 miles of highway.

Elizabethton, Tenn.—Press reports state that the County Court contemplates issuing $340,000 in bonds, the proceeds to be used for road construction in Carter County.

✚Huntsville, Tenn.—A contract for constructing roads in Scott County has been awarded to OLIVER & HILL, Maryville, Tenn.

Madisonville, Tenn.—An election will be held July 15 to vote on the question of issuing $300,00 in bonds, the proceeds to be used for road construction in Monroe County.

✚Louisville, Ky.—The contract for paving alleys with vitrified brick has been awarded to the L. R. FIGG CO., Louisville, at $17,800.

Princeton, Ky.—The question of issuing $150,000 in bonds for road construction, the proceeds of which was to have been used for road construction was defeated at the election Apr. 3.

✚Bowling Green, Ohio—The contract for paving Ordway, Ada and Evers St. has been awarded to MASSMAN & GREEN, Grand Rapids, Mich., at $9500. Noted Apr. 8.

Bowling Green, Ohio—Bids will be received until May 10 by C. E. Stinebaugh, County Audr., for grading, draining and macadamizing about seven roads.

✚Canal Dover, Ohio—Press reports state that contracts have been awarded for paving Iron Ave. to J. NORMAN & SON, at $19,000, and Slingluff Ave. to STANFORD, GLOVER & McELFRESH, Caldwell, at $8000. Noted Apr. 1.

✚Canton, Ohio—Contracts have been awarded for improving the Waco-Mapleton Rd. to the HIGHWAY CONSTRUCTION CO., Elyria, at $21,211, and the Navarre-Justus Rd. to WISE BROS., Canton, at $23,551. Noted Apr. 8.

Cincinnati, Ohio—(Official)—Bids will be received until noon, May 4, by Philip Fosdick, Dir. of Pub. Ser., for improving Colerain Ave. from Harrison Ave. to Hopple St.

Cincinnati, Ohio—W. T. Flynn, at $22,569, submitted the lowest bid for the improvement of the Hunt Rd. Noted Apr. 1.

Cleveland Heights, Ohio (Warrensville post office)—(Official)—Bids will be received until noon, May 17, by H. H. Canfield, Village Clk., for the improvement of Euclid Heights Blvd.

Defiance, Ohio—The City Council has authorized the Director of Public Service to prepare plans for the paving of Jefferson, Washington and Front St.

✚**Findlay, Ohio**—(Official)—The contract for paving Cherry St. with brick has been awarded to C. B. HALL & SON, Findlay, at $10,123. Noted Apr. 15.

Fremont, Ohio—Bonds for $15,000 were sold Apr. 20, the proceeds of which will be used for improving Wayne St.

✚**McGuffey, Ohio**—The contract for paving Courtright St. with brick has been awarded to HENRY S. ENCK, Lima, at $17,000.

✚**Marion, Ohio**—The contract for improving Windsor St. from Bellefontaine Ave. south to Marion Ave. has been awarded to the ASPHALT BLOCK PAVING CO., at $11,555.

✚**Marion, Ohio**—The contract for paving North Main St. from Fairground St. to the corporation line has been awarded to P. DRAKE & SONS, at $23,200.

Napoleon, Ohio—The Commissioners of Henry County contemplate repairing 25¼ miles of crushed stone roads. The estimated cost is $69,992.

New Philadelphia, Ohio—Bids will be received until May 4 by J. E. Scott, Dir. Pub. Ser., for improving South Broadway.

Painesville, Ohio—Bonds for $17,000 were sold Apr. 12, the proceeds of which will be used for improving roads in Lake County. Noted Mar. 18.

✚**Rockford, Ohio**—(Official)—The contract for improving East, First, Second and Franklin St. has been awarded to LEWIS C. BENNETT, Rockford, at $22,041. Noted Apr. 15.

Zanesville, Ohio—(Official)—Bids will be received until noon, May 3, by the Director of Public Service for improving a portion of Sharon Ave.

✚**Battle Creek, Mich.**—A contract for constructing 30 miles of asphalt pavement has been awarded to the FEDERAL ASPHALT PAVING CO., Hamilton, at $23,700.

Kalamazoo, Mich.—Bids will be received until 5 p.m., May 3, for constructing 20,000 sq.yd. of asphaltic concrete pavement and for 613,000 paving blocks. C. L. Miller is City Clk.

✚**Evanston, Ill.**—The contract for paving portions of Colfax and Bennett Ave. has been awarded to H. G. GOELITZ, at $12,550.

✚**Le Roy, Ill.**—The contract for paving Center and Chestnut St. has been awarded to CURDIE & WOLFE, Alton, Ill., at $67,775.

Paris, Ill.—(Official)—All bids received Apr. 23 for constructing 13,200 lin.ft. of gravel and four concrete culverts on the Cherry Point Rd. have been rejected. Bids will be readvertised. Noted Apr. 15.

Springfield, Ill.—(Official)—Bids will be received until 11 a.m., May 5, by the State Highway Commission for road construction in Ford Pike, Shelby, and Bureau Counties.

✚**Milwaukee, Wis.**—(Official)—Contracts have been awarded for paving various streets to F. P. CAUGHLIN, 534 Streets Exchange Bldg., Chicago, Ill., $25,427; BADGER CONSTRUCTION CO., 1006 Railway Exchange Bldg., Milwaukee, $33,759, and the WHITE CONSTRUCTION CO., 1015 Railway Exchange Bldg., Milwaukee, $37,560. Noted Apr. 15.

New London, Wis.—C. J. Thompson, City Clk., will receive bids until May 10 for the construction of approximately 1½ miles of 16-ft. tarvia pavement on crushed stone base on the Shawano Rd.

Oconto, Wis.—Bids will soon be received by the Common Council for laying about 14,000 sq.yd. of brick, asphalt or bituminous macadam pavement. B. Mulvaney is City Clk.

Sheboygan, Wis.—Bids will be received until Apr. 30 by the Board of Public Works for constructing approximately 40,000 sq.yd. of reinforced-concrete pavement.

Grinnell, Iowa—(Official)—Bids will be received until 2 p.m., June 3, by A. C. Harriman, City Clk., for constructing 83,350 sq.yd. of paving, 64,770 lin.ft. of curb and gutter, 11,300 cu.yd. of grading and 29,000 lb. of castings. The Iowa Engineering Co., Clinton, Iowa, is Engr.-in-Charge.

Carlton, Minn.—Bonds for $65,000 have been sold, the proceeds of which will be used for constructing roads in Carlton County.

Duluth, Minn.—Press reports state that W. I. Prince, Mayor, has authorized the Duluth Engineering Co., Duluth, to make surveys for the extension of the boulevard from Fairmont Park to Fond du Lac, about seven miles.

✚**McPherson, Kan.**—A contract for paving about 32 blocks has been awarded to WATTS & AMERMAN, Salina, Kan., at $55,863.

✚**Ottawa, Kan.**—A contract for laying one mile of brick pavement has been awarded to A. L. COOK, at $26,781.

Topeka, Kan.—The Commissioners of Shawnee County contemplate constructing 1½ miles of brick-block pavement on Tenth St. and 1½ miles of brick pavement in West 17th St. O. K. Swayze is Clk. of Comrs.

Lincoln, Neb.—(Official)—An election will be held May 4 to vote on the proposition to issue $50,000 in bonds, the proceeds of which will be used for park extensions. Noted Apr. 15.

Fayette, Mo.—C. J. Rains, City Engr., will soon prepare plans for paving Church St.

Weston, Mo.—Plans are being prepared by Charles McCrae, 221 Reliance Bldg., Kansas City, for paving blocks.

McKinney, Tex.—(Official)—Bids will be received until noon, June 6, by the Commissioners' Court of Collin County for the sale of $665,000 in bonds, the proceeds of which will be used for constructing roads.

Yoakum, Tex.—An election will be held May 5 to submit to the citizens of District No. 1 of Lavaca County the question of issuing $50,000 in bonds, the proceeds to be used for road improvements.

Salt Lake City, Utah—Press reports state that the Board of City Commissioners plans to pave B St.

✚**Chehalis, Wash.**—T. B. BIDWELL, Portland, Ore., at $9724, has been awarded the contract for paving 1½ miles of road near Curtis, in Lewis County. Noted Apr. 8 and 22.

Ephrata, Wash.—Bids will be received until May 3 by the Commissioners of Grant County for constructing seven miles of permanent highway near Wheeler.

Ferndale, Wash.—The City Council contemplates paving a portion of Third St. at an estimated cost of $10,000.

Portland, Ore.—At an election held Apr. 14 the citizens voted in favor of issuing $1,250,000 in bonds, the proceeds to be used for road construction in Multnomah County. Noted Apr. 1.

Bakersfield, Calif.—Bids will be received by the Board of Supervisors, P. H. Everett, Ch. Engr., until 10 a.m. May 5, for grading and constructing culverts on Division 9, Section 3, of the Bakersfield-Glenville Rd. The road is 5.4 miles long.

✚**Concord, Calif.**—The City Trustees have awarded a contract for the paving of 18 blocks of new streets to the MUNICIPAL IMPROVEMENT CO., Richmond, Calif., at $20,789.

Eagle Rock, Calif.—The Board of Trustees contemplates the improvement of Central Ave. The estimated cost of the work is $30,000.

✚**East San Diego, Calif.**—G. R. DALEY, San Diego, has been awarded the contract at $48,168 for improving 6000 lin.ft. of Hugo Ave. and cross streets. Noted Apr. 1.

Los Angeles, Calif.—Bids will be received by the Board of Supervisors until 2 p.m., May 3, for county road improvement in District No. 35. The estimated cost is $21,395.

✚**Los Angeles, Calif.**—The contract for improving 22d St. from Hoover St. to Vermont Ave. has been awarded to the CALIFORNIA CONSTRUCTION CO., 717 Brockman Bldg., at $14,387.

Los Angeles, Calif.—Bids will be received by the Board of Supervisors until 2 p.m., May 3, for county road improvement in District No. 36. The estimated cost is $40,327.

✚**Redwood City, Calif.**—The Board of Supervisors of San Mateo County has awarded a contract for road work near Redwood City to the DUNCANSON-HARRELSON CO., San Francisco, at $29,947.

✚**Sacramento, Calif.**—The California Highway Commission has awarded contracts for road construction as follows: In Yolo County, between Yolo bypass and the Sacramento River, to JOSEPH LAWRENCE, Broderick, at $24,205; in Tulare County, between Goshen and Traver, to W. A. KETTLEWELL & SONS, Sanger, at $34,761; in Tulare County, between Traver and the northerly boundary, to W. A. KETTELWELL & SONS, at $29,123, and in Yuba County, between Morrison's Crossing and the southerly boundary, to E. E. RODDEN & SON, Wheatland, at $19,985. Noted Mar. 25 and Apr. 22.

San Francisco, Calif.—This city will construct a highway through Bernal Cut from Randall St. to San José Ave. to cost about $100,000.

✚**Santa Barbara, Calif.**—(Official)—The contract for improving Moreno Rd., Grand Ave. and Valerio St., has been awarded to the MUNICIPAL IMPROVEMENT CO., at $31,138. Noted Mar. 4.

✚**Santa Barbara, Calif.**—(Official)—The contract for improving Emerson Ave. and Orena St. has been awarded to the MUNICIPAL IMPROVEMENT CO., San Francisco, at $10,347.

✚**Santa Cruz, Calif.**—The City Council has awarded a contract for street paving to W. E. MILLER, Santa Cruz, at $11,175.

✚**Sausalito, Calif.**—The City Trustees have awarded a contract for paving the business section to CLARK & HENERY, at $44,120.

Stockton, Calif.—The Board of Supervisors of San Joaquin County will soon receive bids for macadamizing about eight miles of Howard Rd. The estimated cost is $35,000.

Westmount, Que.—(Montreal post office)—The City Council has appropriated $49,480 for street and road improvements.

Ottawa, Ont.—Plans are now completed by the Ontario Government for extensive road construction in Northern Ontario. The expenditure this season will be $615,000. The sum of $90,000 will be devoted to a highway along the route of the Timiskaning & Northern Ontario Ry., and $75,000 for a road will be constructed from Sturgeon Falls to Sudbury. Apportionments for road-building are also made to various districts as follows: Rainy River, $35,000; Kenora, $25,000; Port Arthur, $40,000; Ft. William, $50,000; Sault Ste Marie, $50,000; Sudbury, $40,000; North Bay, $50,000; Nipissing, $35,000; Haileyburg & South Lorrain, $55,00; other roads, $102,000.

INDUSTRIAL WORKS

Newfield, Maine—The Newfield Poultry Trade Mfg. Co., recently incorporated with a capital of $200,000, will build a three-story, 100x150-ft. factory on the Little Ossipee River. Joseph Neal is Pres.

Nashua, N. H.—(Official)—The Nashua Mfg. Co. has awarded the contract to the TURNER CONSTRUCTION CO., 11 Broadway, New York, N. Y., for the construction of a nine-story, 100x250-ft., reinforced-concrete warehouse. C. Makepeace, Butler Exchange Bldg., Providence, R. I., is Arch.

Everett, Mass.—The Frank W. Kimball Oil Co., 120 Pearl St., Boston, Mass., will build a warehouse to cost $50,000.

Fall River, Mass.—Stevens Mfg. Corporation, Russell St., will construct a two-story, 67x89-ft. storage building. Edward I. Marvel, 57 North Main St., is Arch.

✚**Worcester, Mass.**—The Morgan Spring Co. has awarded the contract for the construction of a four-story, 72x80-ft., brick factory on West Boylston St., to the E. J. CROSS CO., 82 Foster St.

Hartford, Conn.—The Hartford Machine Screw Co. will build a five-story, 50x206-ft. factory, to cost $75,000.

✚**Thomaston, Conn.**—(Official)—The Seth Thomas Clock Co., Thomaston, Conn., has awarded the contract to the TURNER CONSTRUCTION CO., 11 Broadway, New York, N. Y., for the construction of a four-story, 60x240-ft. factory, and a four-story, 52x52-ft. office building, both of reinforced concrete. Lockwood, Greene & Co., 60 Federal St., Boston, Mass., is Arch.

✚**Ballston Spa, N. Y.**—The LEWIS & BURROUGHS CO., INC., Schenectady, N. Y., has been awarded the contract for the construction of three factories; 56x155 ft., 14x80 ft., and 64x90 ft. C. G. Van Rensselear, Schenectady, N. Y., is Arch.

Buffalo, N. Y.—Schoelkopf, Hartford & Hanna contemplate the construction of a plant, estimated to cost $500,000.

Buffalo N. Y.—George Schantz, Arch., Ellicott Square Bldg., has completed plans and is taking bids for a two-story, 78x78-ft. cooler, for the C. Klinck Packing Co., Depot St. and Erie R.R. It will cost $20,000.

Buffalo, N. Y.—The Fedders Mfg. Co. has obtained a permit and will construct a two-story factory addition to its plant at 53 Tonawanda St., to cost $17,000.

Le Roy, N. Y.—The Leroy Salt Co. will build a three-story, 75x80-ft. refinery. George Schantz, Ellicott Square Bldg., Buffalo, N. Y., is Arch.

✚New York, N. Y.—(Borough of Bronx)—JOHN McADAM & CO., 29 West 34th St., has been awarded the contract for the construction of a 50x182-ft. garage for the Prospect Garage Co., to cost $40,000. George Grass, Prospect Ave., near 164th St., is Pres. Benjamin W. Levitan, 20 West 31st St., is Arch.

New York, N. Y. — (Borough of Brooklyn) — The Fred Gretsch Mfg. Co., South Fourth St., plans to construct a ten-story, 80x250-ft. factory to cost $500,000. William Higginson, 17 Park Row, New York, N. Y., is Arch.

New York, N. Y.—(Borough of Brooklyn)—The Sheffield Farms, Slawson-Decker Co. will build a three-story, 100x252-ft. creamery, estimated to cost $125,000. Frank A. Rooke, 489 Fifth Ave., New York, N. Y., is Arch.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Work will start June 1 on the four-story, 80x100-ft. pasteurizing plant and office building for the R. F. Stevens Co., Third Ave. and Dean St. The estimated cost is $140,000. Albert Ullrich, 371 Fulton St., is Arch. Noted Apr. 22.

New York, N. Y.—(Borough of Manhattan)—Louis W. Morrison, 53 Exchange Pl., will build a three-story garage to cost $20,000. Homer A. Reid, 315 Fifth Ave., is Arch.

New York, N. Y.—(Borough of Manhattan)—Plans have been filed by Elliott Lynch, Arch., 341 Fifth Ave., for the construction of a four-story garage at 110 West End Ave., for Louis Richard. The estimated cost is $40,000.

New York, N. Y. — (Borough of Queens) — Rosenwasser Bros., who recently took possession of the Steinway plant, will build a three-story brick addition to the plant at a cost of $15,000.

✚Perry, N. Y.—The Kaustine Co., Inc., Ellicott Square Bldg., Buffalo, N. Y., has awarded the contract for the construction of a factory to MORRIS & ALLEN, Builders Exchange Bldg., Buffalo, N. Y. It will cost $10,000.

Port Chester, N. Y.—(Official)—F. R. Davis, Treas., Wilford Hall Laboratories, advises us that plans for rebuilding have been deferred until about May 15. Noted Apr. 22.

✚Rochester, N. Y.—The Henry Connolly Co., 42 Stone St., has awarded the contract to A. FRIEDERICK & SONS, 106 Mill St., for the construction of a two-story, 90x100 ft. building on Elizabeth St. It will cost $32,000. McCord & Ives, Powers Bldg., is Arch.

✚Bridgeton, N. J.—Greenebaum Bros., 1030 South 10th St., Philadelphia, Penn., has awarded the contract to SMITH-HARDICAN CO., 1606 Cherry St., for the construction of a one-story, 93x200-ft. factory, to cost $15,000. Sauer & Hahn, 1112 Chestnut St., Philadelphia, Penn., is Arch. Noted Mar. 25.

Collingswood, N. J.—The Enterprise Wall Paper Co. will rebuild its two-story brick structure recently destroyed by fire. It will cost $30,000. William Steele & Sons, 1600 Arch St., Philadelphia, Penn., is Arch.

Elizabeth, N. J.—The Midvale Chemical Co., St. Louis, Mo., will build a $200,000 plant.

✚Jersey City, N. J.—The Nagle Packing Co., 663 Henderson St., has awarded the contract for the construction of a five-story, 60x204-ft. packing house, to the M. T. CONNOLLY CONTRACTING CO., 238 17th St., at $94,684. David M. Ach, 1 Madison Ave., New York, N. Y., is Arch. Noted Jan. 28.

Paterson, N. J.—Quackenbush & Son, 122 Van Houten St., will build a two-story, 40x129-ft. addition to its carriage factory, to cost $13,000. Fred Wentworth, Arch., 140 Market St., is receiving bids.

Perth Amboy, N. J.—The Chesebrough Mfg. Co., E. L. Goodley, Supt., will build a four-story, 36x80-ft. vaseline factory, at an estimated cost of $40,000. Ring, Cleaves, Graham Co., 280 North Broad St., Elizabeth, N. J., is Arch.

Dunkirk, Penn.—The Essex Glass Co., Mt. Vernon, Ohio, plans to build a factory at Dunkirk at an estimated cost of $45,000.

✚Frankford, Penn.—(Philadelphia post office)—HORACE H. BURRELL has been awarded the contract for the construction of a one-story, 50x276-ft. brick building at Tacony and Lewis St. for William & Harvey Rowland, Inc. Ballinger & Perrott, 1328 Broadway, New York, N. Y., is Arch. Noted Mar. 25.

Hazelton, Penn.—The Hazelton Bleach Works will construct a two-story, 50x100-ft. factory to cost $25,000. W. E. S. Dyer, Land Title Bldg., Philadelphia, is Arch.

Lebanon, Penn.—Burden Bros. contemplates the construction of a two-story, 50x50-ft. ice cream factory, to cost $20,000. Howere & Howere, 829 Cumberland St., is Arch.

✚Philadelphia, Penn.—WILLIAM STEELE & SONS CO., 1600 Arch St., has been awarded the contract for the construction of a 43x59-ft., and a 30x30-ft. addition to the ice plant of G. C. Schlegelmilche, Germantown and East School Lane. Koelle, Spath & Co., 26th and Oxford St., is Arch. The estimated cost is $20,000.

✚Philadelphia, Penn.—Fretz, Gross & Co., 22d and Sedgley Ave., has awarded the contract to FRANK K. STAHL, 2713 North Park Ave., for the construction of a two-story, 75x121-ft. factory, to cost $17,000. Peter Kuhn, 3058 North Eighth St., is Arch.

✚Philadelphia, Penn.—William B. Lewis, 1518 Market St., has awarded the contract to SMITH-HARDICAN CO., 1606 Cherry St., for the construction of a three-story, 20x90-ft. building, to cost $16,000. Henon & Boyle, 10 South 18th St., is Arch.

✚Philadelphia, Penn.—The West Electric Hair Curler Co. has awarded the contract to E. HOLLENBACK, 15th and Race St., for the construction of a two-story, 59x128-ft. factory, to cost $25,000. Robert W. Pollock, 1802 Chestnut St., is Arch.

✚Philadelphia, Penn.—The Hess-Bright Mfg. Co., Second and Erie Ave., has awarded the contract to HARRISON C. REA, 1029 Wood St., for the construction of a one-story, 40x180-ft. machine shop to cost $35,000. Watson & Huckle, 1211 Walnut St. is Arch. Noted Oct. 15.

Philadelphia, Penn.—Oehrle Bros., 423 North Third St., will build a four-story brick addition to its factory.

Pittsburgh, Penn.—The Columbia Ice Co. has acquired a site on Hamilton Ave., and will build a $30,000 plant.

Scranton, Penn.—The Delaware & Hudson Co. will erect a cold-storage plant to cost about $100,000. F. D. Anthony, Albany, N. Y., is Constr. Engr.

✚Baltimore, Md.—The CONSOLODATED ENGINEERING CO., Calvert Bldg., has been awarded the contract for the construction of a three-story, 18x65-ft. warehouse for Isaac J. Schlessinger, 2011 Madison Ave. J. C. Spedden, 1640 Hanover St., is Arch. The estimated cost is $15,000.

✚Baltimore, Md.—The Hudson Cement & Supply Co., Western Maryland R. R. and Third St., has awarded the contract for the construction of two warehouses to the CONSOLIDATED ENGINEERING CO., Calvert Bldg. The estimated cost is $20,000.

✚Lagrange, Ga.—The Meritas Mills has awarded the contract for the building of its cotton warehouse to T. C. THOMPSON & BROS.

Birmingham, Ala.—The United States Cast Iron Pipe & Foundry Co. will build an addition to its plant, to cost $100,000.

Birmingham, Ala.—(Official)—Work will soon be started on a five-story, 68x120-ft., reinforced-concrete cold-storage plant for the Birmingham Ice Factory Co. The estimated cost is $75,000. D. I. Davis, 431 South Dearborn St., Chicago, Ill., is Arch.

Selma, Ala.—Selma Oil, Ice & Fertilizer Co. will improve its plant on Franklin St., at an expenditure of $30,000.

Natchez, Miss.—Plans have been prepared by M. R. Carpenter, Arch., 2916 Webster Ave., Cincinnati, Ohio, for the construction of a cold-storage plant for the Natchez Fish Co.

Memphis, Tenn.—Pritchard Bros. is receiving bids for the construction of a two-story warehouse, to cost $25,000. G. M. Shaw & Co., Tennessee Trust Bldg., is Arch.

✚Memphis, Tenn.—The [illegible]-Cola Bottling Co. has awarded the contract to CHAF[illegible]ER and A. B. LANNING, for the construction of [illegible] 60x148-ft. building, to cost $15,000. R. L. Hood is Pres. [illegible] Gen. Mgr. William B. Boone is Arch.

Ft. Thomas, Ky.—The Highland Film Corporation contemplates the construction of a plant to cost $1,000,000. James T. Ford is Pres.

✚Louisville, Ky.—The COMBS LUMBER CO. has been awarded the contract for the construction of a roundhouse, repair shops, and other auxiliary buildings for the Chesapeake & Ohio R.R. The estimated cost is $100,000.

✚Cincinnati, Ohio—The National Lead Co., Freeman Ave., has awarded the contract to the FERRO CONCRETE CONSTRUCTION CO. for the construction of a $40,000 addition to its plant.

✚Cincinnati, Ohio—The R. K. Le Blond Machine Tool Co., 4609 Eastern Ave., has awarded the contract for the addition to its plant to the L. EID CONCRETE STEEL CO., 1206 West Liberty St. Zettle & Rapp, 607 Johnston Bldg., is Arch. Noted Apr. 22.

✚Cleveland, Ohio—The American Ship Building Co. has awarded the contract to the CROWELL-LUNDOFF-LITTLE CO., 1957 East 55th St., for the construction of three buildings, estimated to cost $160,000.

Cleveland, Ohio—Mrs. Amanda Corlett, 1020 Rockefeller Bldg., will build a three-story, 100x152-ft. auto sales and garage building. W. S. Ferguson Co., 615 Euclid Bldg., is Arch.

Mt. Vernon, Ohio—The Essex Glass Co. will build a $50,000 factory this spring.

✚Indianapolis, Ind.—The Bedford Stone & Construction Co. has awarded the contract to the WASHINGTON & MERIDAN CONSTRUCTION CO. for the construction of a ten-story shop and office building. Henry Kahn is Pres.

Chicago, Ill.—Hill, Clark & Co., 125 North Canal St., will build a warehouse at 2100 Kilbourn Ave., at an estimated cost of $80,000. Lockwood & Wells is Arch.

Chicago, Ill.—The Western Plumbing Supply Co., 119 North Desplaines St., will build a three-story brick warehouse on Fillmore St. The estimated cost is $60,000.

Chicago, Ill.—The American Film Co. has obtained a permit and will erect a two-story factory at 6227 Broadway, to cost $30,000. Hatzfield & Knox, 7 South Dearborn St., is Arch.

✚Chicago, Ill.—The Weller Mfg. Co., 1834 Kostner Ave., has awarded the contract for the construction of a two-story, 50x250-ft. warehouse and office building, to the STODDARD CONSTRUCTION CO., 343 South Dearborn St. R. A. Kirkpatrick is Arch.

✚Chicago, Ill.—Bauer & Black, Dearborn Ave. and 25th St., has awarded the contract for the construction of a three-story warehouse to JAMES SHEDDEN & CO., 106 North La Salle St. The estimated cost is $20,000. Holabird & Roche, 104 South Michigan Ave., is Arch.

✚Chicago, Ill.—The National Biscuit Co., 409 West 15th St., New York, N. Y., and 110 North Morgan St., Chicago, Ill., has awarded the contract to JOHN GRIFFITHS & SONS CO., 112 West Adams St., for the construction of a two-story, 140x350-ft. warehouse, estimated to cost $250,000. J. R. Torrance, 409 West 15th St., New York, N. Y., is Arch. Noted Mar. 25.

✚Peoria, Ill.—E. Lehman, Federal Warehouse Co., 113 South Water St., has awarded the contract to V. JOBST & SONS, for the construction of a seven-story, 166x200-ft. warehouse, to cost $200,000. Reeves & Baillie, 732 Jefferson Bldg., is Arch.

Madison, Wis.—The Union Transfer & Storage Co. will construct a seven-story, 95x157-ft. warehouse to cost $110,000. S. H. Dunford, Arch., 10 South La Salle St., will receive bids about May 10.

Madison, Wis.—Moares & Dunford, Arch., 10 South LaSalle St., Chicago, Ill., is preparing plans for a seven-story, 95x157-ft. reinforced-concrete and brick warehouse, for the Union Transfer & Storage Co. Bids will be received about May 10.

Milwaukee, Wis.—Herbst & Hufschmidt, Arch., 721 Caswell Block, is receiving bids for the construction of a two-story, 60x120-ft. factory for H. Marks, at 31st. St. and North Ave.

Davenport, Iowa—The Crescent Macaroni & Cracker Co. will build a $100,000 factory. Clausen & Kruse, 315 Central Bldg., is Arch.

Duluth, Minn.—Bids will be received until May 15 by F. G. German, Arch., for the construction of a four-story, 160x240-ft. warehouse for the Terminal Realty Co. The estimated cost is $250,000.

Duluth, Minn.—German & Jenssen, Arch., 411 American Exchange Bank Bldg., has prepared plans and is receiving bids for a two-story, 51x110-ft. garage for G. A. Tomlinson, 700 Board of Trade Bldg.

Duluth, Minn.—W. M. Brindler & Co., Lonsdale Bldg., will construct a two-story, 50x115-ft. garage, to cost $20,000. W. T. Bray, Arch., 1200 Fidelity Bldg., is receiving bids.

Duluth, Minn.—The Gowan, Lenning, Brown Co., Fifth Ave., W., will construct a six-story, 160x260-ft. warehouse, to cost $300,000. F. G. German, 411 American Exchange Bank Bldg., is Arch. Noted June 18.

Minneapolis, Minn.—Plans have been prepared and bids will be received by Bertrand & Chamberlain, Arch., 617 Northwest Bank Bldg., for the construction of a five-story warehouse for the New England Furniture Co. The estimated cost is $200,000.

Argentine, Kan.—(Official)—The Atchison, Topeka & Santa Fé Ry. Co. will build an addition to its grain elevator, increasing the capacity by 2,000,000 bu. John S. Metcalf Co., 108 South La Salle St., Chicago, Ill., is Arch.

Pittsburg, Kan.—The Pittsburg Wholesale Candy Co. will build a three-story, 51x70-ft. factory, to cost $12,000. J. R. Hinkle, 105 West Fourth St., is Mgr. Albert Callire, 318 Globe Bldg., is Arch.

Winfield, Kan.—The Winfield Wholesale Grocery Co. will construct a two-story, 100x140-ft. warehouse, to cost approximately $30,000. C. E. Hair & Co., Oklahoma, Okla., is Arch.

Lincoln, Neb.—The Carter Transfer & Storage Co., 301 North Eighth St., will construct a four-story storage warehouse, estimated to cost $80,000. Jesse B. Miller, 426 Little Bldg., is Arch.

Omaha, Neb.—The World Herald Publishing Co., 1412 Farnam St., will receive bids about May 1 for the construction of an eight-story, 66x132-ft. building, to cost $300,000. Thomas R. Kimball, 503 McCoyne Bldg., is Arch.

✚Omaha, Neb.—L. G. Doup, 13th and Nicholas St., has awarded the contract to NEWMAN & JOHNSON for the construction of a four-story, 66x128-ft. warehouse, at an estimated cost of $60,000. Noted Apr. 1.

Kansas City, Mo.—The Burdett Mfg. Co., J. C. Gosnell, 1414 East Ninth St., Pres., will build a three-story, 140x140-ft. factory. F. C. Gunn is Arch.

St. Joseph, Mo.—The St. Joseph Viscosity Refining Co. will construct a $45,000 steel oil refinery. Adebert Simmons is Gen. Mgr.

St. Louis, Mo.—P. J. Bradshaw, Arch., Liggett Bldg., is receiving bids for the construction of a one-story, 160x165-ft. warehouse.

Dallas, Tex.—The Nelson Morris Packing Co., Chicago, Ill., and Oklahoma City, Okla., will build a $60,000 plant at Broom and Carter St. Z. J. Bath, Adolphus Hotel, is in charge.

Glencove, Wash.—Robert B. McClary, Bellingham, Wash., is interested in a project to erect a salmon cannery at Glencove.

Seattle, Wash.—The Salmon Bay Packing Co., headed by P. Manson, 2407 Boylston Ave., has been incorporated for the construction of a fish cannery at Loyal Heights, a suburb of Seattle.

Seattle, Wash.—The Ferris Auto Repair Co., 101 Broadway, N., plans the construction of a one- and two-story, 80x127-ft. reinforced-concrete garage at Broadway, N., and Denny Way. The estimated cost is $125,000.

Seattle, Wash.—The Tucker-Hanford Co. will build a one-story printing plant, at an estimated cost of $16,000. Bebb & Gould, Denny Bldg., is Arch.

Tacoma, Wash.—According to reports, the Glacier Fisheries Co. contemplates the construction of a $500,000 ice manufacturing and cold-storage plant. E. A. Sims, Port Townsend, is interested.

Albany, Ore.—C. O. Anderson contemplates the construction of a jewelry manufacturing plant.

✚Portland, Ore.—The contract for the construction of a four-story mill at Broadway and Davis St. for the J. M. Leavitt & Co., has been awarded to A. C. MEYER. The estimated cost is $40,000. Jacobberger & Smith is Arch.

✚The Dalles, Ore.—Libby, McNeal & Libby Co., Chicago, Ill., has awarded the contract for the construction of its $60,000 canning factory to FRANK LEONARD, Portland, Ore.

Castella, Calif.—The Burns Lumber Co. will build a box factory at an estimated cost of $35,000.

San Francisco, Calif.—(Official)—The Chief Engineer of the California Fruit Canners Association, advises us that a site has been acquired but no plans have been developed as yet for the construction of a cannery. Noted Apr. 15.

San Francisco, Calif.—The Seattle Brewing & Malting Co., Grant St., Seattle, Wash., plans the construction of a plant at Alameda and Bryant St., to cost $750,000. Carl Siebrand is Arch.

✚San Francisco, Calif.—The contract for the construction of the plant on Bryant St. for the Rainier Brewing Co., has been awarded to the SOUND CONSTRUCTION CO., at $538,913.

FEDERAL GOVERNMENT WORK

Quarantine Station—Portland, Maine—Bids were received Apr. 20, by the Acting Supervising Architect, Treasury Dept., Washington, D. C., for the construction of steerage barracks in connection with the quarantine station at Portland, as follows: Charles E. Currier Co., Boston, Mass., $69,000; F. A. Rumery Co., Portland, $69,216; King Lumber Co., Charlottesville, Va., $72,813; Otto Nelson Co., Bangor, $82,325; J. Kresse Co., New York, N. Y., $53,900; T. J. Moreau & Co., Lewiston, $92,400; W. H. Fissel & Co., New York, N. Y., $75,445; Forgiole & Romano Co., Portland, $71,729; C. M. Leach, Boston, Mass., $79,873; Mahoney Construction Co., Portland, $68,810; Westchester Engineering Co., White Plains, N. Y., $74,779 and Sacco & Wood, Portland, $79,438. Noted Mar. 8 and 25.

Pattern Shop Floor—Boston, Mass.—Bids will be received until 11 a.m., May 15, by H. R. Stanford, Ch., Bureau of Yards and Docks, Navy Dept., Washington, D. C., for furnishing in place steel work for a pattern shop floor, Navy Yard, Boston.

✚Repairs, Marine Hospital—Boston, Mass.—The contract has been awarded to WILLIAM M. FLYNN, West Roxbury, at $7204, for making repairs to the U. S. Marine Hospital, Boston.

✚★Dredging—Buffalo, N. Y.—The contract has been awarded to A. E. BREYMANN, Toledo, Ohio, at $38,850, for dredging in the Niagara River. Noted Mar. 18 and Apr. 22.

Boat Landing and Crane—Rondout, N. Y.—Bids will be received until 2 p.m., May 15, by J. T. Yaes, Lighthouse Inspector, Tompkinsville, N. Y., for constructing a boat landing and installing a boat crane at Rondout North Dike, Light station, Rondout.

★Moving Guard Station—Sandy Hook, N. J.—(Ft. Hancock post office)—Bids will be received until 2 p.m., May 26, by the U. S. Coast Guard, Treasury Dept., Washington, D. C., for moving and altering the Sandy Hook Coast Guard Station. E. P. Bertholf is Capt.

★Building—Pittsburgh, Penn.—Bids will be received until noon, May 21, by Capt. Harold C. Fiske, U. S. Engineer Office, Pittsburgh, for building two lockkeepers' houses at Dam No. 1, Monongahela River.

✚Mechanical Equipment—Pittsburgh, Penn.—The contract for the mechanical equipment for the Bureau of Mines Experiment building at Pittsburgh has been awarded to the STANDARD ENGINEERING CO., Woodward Bldg., Washington, at $63,650. Noted Mar. 18 and Apr. 22.

★Rewiring—Washington, D. C.—Bids will be received until 2 p.m., May 11, by the Secretary of the Interior, Dept. of Interior, Washington, D. C., for rewiring the third floor and galleries of the Patent Office, Seventh and F. St., N. W.

Rewiring—Washington, D. C.—Bids were received Apr. 20, by the Chief Clerk of the Post Office Department, Washington, D. C., for rewiring the Post Office Department Building, Washington as follows: Capitol Electric Co., Washington, D. C., $26,900; J. E. Taylor, Inc., Washington, D. C., $19,900; E. S. Downs & Co., Philadelphia, Penn., $17,987; Carroll Electric Co., Washington, D. C., $24,029; W. G. Cornell & Co., Washington, D. C., $24,628; Reading Electric Co., Reading Penn., $28,000; Howard P. Foley Co., Washington, D. C., $23,649 and Charles F. Brown, 515 East 78th St., New York, N. Y., $16,494.

Sewers—Washington, D. C.—Bids were received by the Commissioners of the District of Columbia for the construction of sewers in the District as follows: (a) ordinary excavation, (b) concrete masonry, (c) vitrified brick masonry, (d) sewer brick masonry: Warren F. Brenizer Co., (a) $0.70, (b) $6.50, (c) $21, (d) $12; William F. Cush, (a) $0.69, (b) $7, (c) $22, (d) $14; George Hyman, (a) $0.30, (b) 8.50, (c) $20, (d) $13; Whiting-Turner Construction Co., Baltimore, Md., (a) $0.91, (b) $8, (c) $22, (d) $15. Above bidders are of Washington unless other wise stated. Noted Apr. 15.

★Paving—Washington, D. C.—Bids will be received until 2 p.m., May 21, by the Secretary, Board of Commissioners, for paving various streets with sheet asphalt.

★Paving—Washington, D. C.—Bids will be received until 2 p.m., May 21, by the Secretary, Board of Commissioners for paving various streets with asphalt-block.

★Steel Lock Gates—Wheeling, W. Va.—Bids will be received until 11 a.m., May 18, by Maj. T. H. Jackson, Wheeling, for furnishing steel lock gates at Dams Nos. 12 and 20, Ohio River.

Cement—Wheeling, W. Va.—Bids will be received until 11 a.m., May 8, by Maj. T. H. Jackson, U. S. Engineer Office Wheeling, for furnishing 46,000 bbl. of American portland cement for Dams Nos. 21 and 22, Ohio River.

Building—Wilmington, N. C.—Bids were received Apr. 19 by the Supervising Architect, Treasury Dept., Washington, D. C., for constructing medical officers' quarters at the U. S. Marine hospital as follows: Morton & Cox, Wilmington, $5600; C. E. Dunnavante, Portsmouth, Va., $10,243 and Robert Tucker, Wilmington, $7900. Noted Apr. 1.

★Cement—Wilmington, N. C.—Bids will be received until noon, May 26, by Maj. H. W. Stickle, U. S. Engineer Office, Wilmington, for furnishing 22,000 bbl. of portland cement.

★Stone—Wilmington, N. C.—Bids will be received until 1 p.m., May 26, by Maj. H. W. Stickle, U. S. Engineer Office, Wilmington, for furnishing 19,700 tons of crushed stone.

★Steel Lighters—Savannah, Ga.—Bids will be received until noon, May 26, by Col. W. C. Langfitt, Savannah, for constructing two steel lighters.

✚Post Office—Live Oak, Fla.—The contract has been awarded to WILLIAM H. FISSELL & CO., 1133 Broadway, New York, N. Y., at $47,500, for constructing a post office at Live Oak. Noted Feb. 25 and Apr. 1.

✚Post Office—Cookeville, Tenn.—The contract for constructing the U. S. post office at Cookeville has been awarded to W. H. FISSELL & CO., St. James Bldg., New York, N. Y., at $81,840.

★Steel Hull—Louisville, Ky.—Bids will be received until noon, May 19, by Maj. J. C. Oakes, U. S. Engineer Office, Louisville, for a steel hull for dredge "Nolin River."

★Metalwork—Ashtabula, Ohio—Bids will be received until 2 p.m., May 12, by the Lighthouse Inspector, Buffalo, N. Y., for furnishing metalwork for superstructure of Ashtabula West breakwater light station, Ashtabula Harbor.

Post Office—Toledo, Ohio—Bids were received Apr. 23, by the Acting Supervising Architect, Treasury Dept., Washington, D. C., for the remodeling of the post office at Toledo, (a) excluding work on the third and fourth stories, (b) work on the third and fourth stories, (c) total as follows: Bright Construction Co., Toledo, Ohio, (a) $15,529, (b) $14,413; Frank M. Weakley, Canton, Ohio, (a) $18,280, (b) $10,839, (c) $26,119; Schmidt-Harwood Co., Toledo, Ohio, (a) $21,080, (b) $6900; John G. Unkefer & Co., Minerva, Ohio, (a) $18,051, (b) $7000 and Neptune B. Smyth, Inc., New York, N. Y., (a) $21,898, (b) $14,215. Noted Mar. 18.

★Cribs and Superstructures—Harbor Beach, Mich.—Bids will be received until noon, May 20, by Lieut.-Col. Mason M. Patrick, for constructing and placing two timber cribs and replacing with concrete, timber superstructure at the breakwater, Harbor Beach. Noted Apr. 15.

★Stone Riprap—Harbor Beach, Mich.—Bids will be received until noon, May 19, by Lieut.-Col. Mason M. Patrick, Federal Bldg., Detroit, Mich., for furnishing and placing stone riprap along lake face of the main breakwater, Harbor Beach. Noted Apr. 15.

Dredging—Keweenaw Bay, Mich.—Bids will be received until 10 a.m., May. 4, by Maj. E. D. Peek, U. S. Engineer Office, Duluth, Minn., for dredging in Ontonagon Harbor and waterway across Keweenaw Point, Mich.

★Lock Improvement—Sault Ste. Marie, Mich.—Bids will be received until noon, May 24, by Lieut.-Col. Mason M. Patrick, Federal Bldg., Detroit, Mich., for constructing concrete masonry for fourth lock at Sault Ste. Marie. Noted Apr. 15.

★Dike and Revetment—Glasgow, Mo.—Bids will be received until noon, May 20, by Lieut.-Col. Herbert Deakyne, U. S. Engineer Office, Kansas City, Mo., for constructing about 2250 ft. of standard 3-row timber dike and about 12,000 ft. of standard revetment on the Missouri River near Glasgow.

★Dike—Napoleon, Mo.—Bids will be received until noon, May 20, by Lieut.-Col. Herbert Deakyne, U. S. Engineer Office, Kansas City, Mo., for constructing about 5900 ft. of standard 3-row timber dike on the Missouri River near Napoleon.

★Dike—Waverly, Mo.—Bids will be received until noon, May 24, by Lieut.-Col. Herbert Deakyne, U. S. Engineer Office, Kansas City, for constructing 5500 ft. of standard 3-row timber dike on the Missouri River.

★Dike and Revetment—Waverly, Mo.—Bids will be received until noon, May 24, by Lieut.-Col. Herbert Deakyne, U. S. Engineer Office, Kansas City, Mo., for constructing about 1000 ft. of standard 3-row timber dike and 5000 ft. of standard revetment on the Missouri River.

✚Barracks, Kitchen and Storehouse—Hot Springs, Ark.—Contracts have been awarded for constructing barracks kitchen and storehouse at the Army and Navy Hospital as follows: KELLY & BACHE, Leavenworth, Kan., at $19,180, for construction proper; M. B. SANDERS, Little Rock, Ark., at $5722, for plumbing and heating and to GEORGE T. SCHMELZEL, Hot Springs, Ark., at $718, for electric wiring. Bids were opened Mar. 20. Noted Mar. 11.

Post Office—Longview, Tex.—Bids will be received until 3 p.m., June 2, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for constructing the U. S. post office at Longview.

Steel Towers—Point Isabel, Tex.—(Isabel post office)—Bids will be received until 11 a.m., May 29, by H. R. Stanford, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., for two 300-ft. steel towers for the radio station at Point Isabel.

✚Dormitory—Tuba, Ariz.—The contract has been awarded to the HETZEL-WINGET CO., Los Angeles, Calif., at $25,300, for constructing a stone dormitory at the Western Navajo Indian School. Noted Mar. 11 and Apr. 15.

✚★Pumping Plant—Seattle, Wash.—The contract has been awarded to R. D. WOOD & CO., Philadelphia, Penn., at $29,075, for constructing a pumping plant at Lake Washington canal locks. Noted Feb. 11 and Apr. 1.

Miscellaneous Supplies—Panama—Bids will be received until 10:30 a.m., May 5, by Maj. F. C. Boggs, Gen. Pur. Agt., Panama Canal Comn., Washington, D. C., for furnishing miscellaneous supplies.

MISCELLANEOUS

Subway—Boston, Mass.—The Public Service Commission recently presented plans to the State Legislature, showing how it is possible to link the North Station with the South Station and give these terminals short and direct connection with the Boston, Revere Beach & Lynn R.R., and with the large docks in South Boston and East Boston. As the cost of putting this scheme into operation would be $30,000,000, it was submitted only for the purpose of showing a method of solving the transportation problem in that city.

Natatorium—Holyoke, Mass.—Bids will be received by the Board of Public Works until Apr. 30 for the construction of a swimming pool. John F. Sheehan is City Clk.

Motor Apparatus—Newport, R. I.—The City Council has passed an ordinance providing for the installation of motor apparatus in the fire department. Francis N. Fullerton is City Clk.

★Seawall—Bridgeport, Conn.—(Official)—Bids will be received by the Board of Park Commissioners until 1 p.m., May 10, for the construction of about 450 ft. of seawall. A. H. Terry is City Engr. B. F. Cooney is Clk., Board of Park Commissioner.

Subway—Buffalo, N. Y.—Bids will soon be asked by the Buffalo Grade Crossing Commission for the construction of a subway under the Pennsylvania R.R. at Lord and Smith St. A subway is also to be constructed at the Bailey Ave. crossing. G. B. Guthrie, Elliott Square Bldg., is Engr.

Dock and Retaining Wall—Buffalo, N. Y.—The Great Lakes Dredge & Dock Co., Morgan Bldg., Buffalo, submitted low bid at $38,250, for the construction of dock and retaining wall at Bird Island Pier. George H. Norton, Municipal Bldg., is City Engr.

Lumber—New York, N. Y.—(Borough of Manhattan)—(Official)—The following are the bids received by the Department of Docks and Ferries for furnishing and delivering 1,575,455 cu.ft. of lumber, the prices following being per 1000 ft. b.m.: Hirsch Lumber Co., 26 Beaver St., New York, $23.93; Standard Lumber Co., $24.95; J. A. Maloney, $25.45; J. H. Barton & Co., Inc., $28; Cooney Eckstein, $24.59; F. B. Haviland, $25.18; Atlantic Gulf Co., $25.80.

Locomotive Cranes—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by J. T. Fetherston, Comr. of Street Cleaning, Municipal Bldg., until noon, May 5, for furnishing and delivering four locomotive cranes.

Trucks—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by J. T. Fetherston, Comr. of Sheet Cleaning. Municipal Bldg., until noon, May 5, for furnishing 20 trucks, to be used in gathering paper and rubbish.

✚Subway—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for the construction of Section No. 2 of Route No. 12 of the Eastern Parkway subway has been awarded to the INTER-CONTINENTAL CONSTRUCTION CO., 26 Cortlandt St., New York, at $2,744,263. Noted Apr. 1 and 22.

Corporation Yard—New York, N. Y.—(Borough of Manhattan)—(Official)—The following are the bids received for the construction of a corporation yard under the Manhattan Bridge, between Madison and Monroe St. A. V. Johnson & Co., $11,344; R. J. Mackey, $12,440; B. Diamond, $12,888; J. Kressi, 1133 Broadway, New York, $10,800; Tully & McGinis, $12,498; Gaspesini & DeBlasic, $12,815; W. Konop, $12,100; D. G. Pecora, $12,700; W. J. Marshall, $12,900; Winkler Construction Co., $11,180; Northern Cornice & Roofing Co., $10,998.

Lumber—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by J. T. Fetherston, Comr. of Street Cleaning, Municipal Bldg., until noon, May 6, for furnishing and delivering lumber.

★Subway—New York, N. Y.—(Borough of Brooklyn)—Bids will be received by the Public Service Commission for the First District, 154 Nassau St., New York, until May 18 for the construction of Section No. 2 of Route No. 49, a part of the Culver Rapid Transit R.R. A three-track elevated railroad, beginning at a point in Gravesend Ave. about 525 ft. south of Bay Parkway and extending southerly over Gravesend Ave. and Shell Rd. to a point about 525 ft. south of Ave. X is required.

Motordrome—New York, N. Y.—(Borough of Brooklyn)—According to recent press reports, the Sheepshead Bay Speedway Corporation has been incorporated with a capital of $2,500,000, for the purpose of constructing a large two-mile motordrome, also a large athletic field, and it is planned to purchase the Sheepshead Bay race track for this purpose. This corporation is composed of many prominent men in and around New York and a great many men who have interests in large automobile concerns. For the present, the company's offices are located in the Whitehall Bldg., New York. Everard Thompson, at present director of the Yale Bowl, is Gen. Mgr.

Drainage—Atlantic City, N. J.—The City Commissioners plan to extend the underground drainage system. Bonds for $100,000 will be issued for this purpose. John W. Hackney is City Engr.

Elimination of Grade Crossing—Cranford, N. J.—The Public Utility Commission has issued an order, to take effect May 15, to the Central R.R. of New Jersey, the Township of Cranford and the public utility companies involved, to eliminate the grade crossing at Union Ave. The work must begin by June 15 and must be completed within 18 months.

Fire Station—Jersey City, N. J.—The City Council is considering the construction of a fire station. Michael I. Fagen is City Clk.

Memorial—Newark, N. J.—By the provisions of a bill passed by the Legislature the citizens will vote at the general election next fall on the issuance of $150,000 in bonds for the erection of a permanent memorial of Newark's 250th anniversary.

Grandstand—Newark, N. J.—The Essex County Park Commission has approved plans for a grandstand at the race track in Weequahic Park to cost $68,000. If the Board of Chosen Freeholders fails to provide for the $68,000 expenditure in the next tax budget the matter will go over for a year.

Shelter Building—Newark, N. J.—The Essex County Park Commission has approved plans for a shelter building at Irvington Park, which will contain lockers, shower baths, etc. The estimated cost is $10,000. Bids will soon be received.

Shelter Station—North Bergen, N. J.—(Official)—Bids will be received until 2 p.m., May 6, by the Hudson County Park Commission, Exchange Pl., Jersey City, for the construction of a shelter and public comfort station at North Hudson Park.

Elimination of Grade Crossings—Paterson, N. J.—According to press reports, it will cost the Erie R.R. about $4,000,000 to eliminate all grade crossings in Paterson. The New Jersey Utilities Commission has ordered that the work be done but no time limit for completing the work has as yet been set.

✚Retaining Wall and Fence—Pittston, Penn.—The Board of School Directors of the Kosciusko School has awarded the contract for the construction of the retaining wall and fence at the school to HERMAN MAYLANDER, Wilkes-Barre, at $22,718.

✚Swimming Pool—Baltimore, Md.—The contract for constructing a swimming pool at Clifton Park has been awarded by the Board of Awards to HENRY A. BRANNAN, 4007 Bell Ave., Baltimore, at $25,900.

Drainage—Charlotte, N. C.—Bids will be received by James R. Alexander, Chn., Mecklenburg Drainage Comn., until noon, May 3, for the improvement of the McAlpine Creek Drainage District No. 1. The work provides for the dredging of seven miles of ditches, containing about 300,000 cu.yd., also 1200 lin.ft. of lateral ditches, containing about 12,000 cu.yd.

★✚Track Material—Jacksonville, Fla.—(Official)—Contracts have been awarded as follows by the Board of Port Commissioners for furnishing track material: Rails, MARYLAND STEEL CO., at $1.37 per 100 lb.; splice bars, MARYLAND STEEL CO., $1.70 per 100 lb.; bolts and spikes, LACKAWANNA STEEL CO., at $1.57 and $2.32 per 100 lb.; 40 turnouts, the KILBY FROG & SWITCH CO., at $66.35 each. F. W. Bruce is Chf. Engr. Noted Mar. 4.

+Drainage—Jennings, La.—It is reported that the contract for the drainage of a portion of Grand Marias has been awarded to the LAKE ARTHUR DREDGING CO. and the HUDSON-NICHOLAS DREDGING CO. The total cost is about $100,000.

Drainage—Selmer, Tenn.—It is reported that the Nairy County Court has appointed J. W. Wood and F. M. Patton, Engr., Jackson, as Commissioners for the Big Owl Creek Drainage District. The contract for a drainage system will be awarded about May 20. The work includes the excavation of about 181,500 cu.yd. of earth.

Speedway—Cincinnati, Ohio—The Cincinnati Motor Speedway Co. has been recently organized with a capital of $500,000 for the purpose of building a speedway on the outskirts of the city. H. J. Edwards, Cincinnati, is Pres.

Greenhouses—Columbus, Ohio—Bids will be received by Carl E. Steeb, Secy., Bd. of Trustees, Ohio State University, until noon, May 18, for the construction of two greenhouses.

Recreation Building—Columbus, Ohio—Bids will be received by George A. Borden, Dir. Pub. Ser., City Hall, until noon, May 4, for the construction of a one-story and basement brick recreation building in Glenwood Park. Specifications may be obtained from J. A. Jones, Arch., Dispatch Annex Bldg., Columbus.

Ditch—Napoleon, Ohio—It is planned to build a ditch, 12 miles long, to be known as the Joseph S. Warren ditch. G. E. Rafferty is County Audr., and F. A. Daum, Napoleon, is Engr.

Ditches—Peru, Ind.—(Official)—Bids will be received by E. O. Deeds, Construction Comr., until 9 a.m., May 1, for the construction of several ditches.

+Drain—Coldwater, Mich.—It is reported that the contract for constructing drains in Allegan and Barry Counties has been awarded to WEAGE & TYLER, Coldwater, at about $33,700.

+Recreation Building—Chicago, Ill.—The contract for the construction of the recreation building and shelter on Pier No. 2, Harbor Dist. No. 1, has been awarded to PASCHON BROS., at $415,000. Noted Apr. 8 and 22.

★Concrete Retaining Wall—Chicago, Ill.—(Official)—See item under "Sewers."

Ditch—Danville, Ill.—Bids will be received by the Drainage Commissioners of the Jamesburg Special Drainage District, until 11 a.m., May 22, for ditch work, requiring 12,285 cu.yd. of excavation, furnishing and laying 56,650 ft. of drain tile. J. F. Fisher, Garret Bldg., Danville, is Engr.

Pier—Milwaukee, Wis.—Frank P. Schumacher, Secy., Park Comn., will soon call for bids for the construction of the lake shore protection pier for the Lake Drive project. The cost is estimated at $30,000.

+Ditch—Rockwell City, Iowa—The contract for the construction of Sac and Calhoun Ditch has been awarded to COSTEGAN & HOSS, Ft. Dodge, at $8012.

Municipal Improvements—Kansas City, Mo.—The City Council will soon call an election for the purpose of voting on the issuance of $4,560,000 in bonds. The budget provides for the following improvements: Grading and improving Union Station Park, $100,000; fire stations and equipment, $125,000; general hospital, $125,000; municipal farm, $125,000; Sixth St. traffic way, $450,000; sewers, $400,000; bridges and viaducts, $450,000; Union Station approaches, $700,000; garbage disposal, $300,000; police stations, $125,000; 12th St. viaduct traffic level, $200,000; improvement of existing parks, including Swope Park, $450,000; comfort stations, $40,000; 23d St. traffic way; $300,000; Chestnut Ave. viaduct, $25,000; subway under Robert Gillham Rd., at 23d St., $15,000; widening Brook St., $30,000; Blue Valley sewer, $500,000; Improvement of the Blue River, $100,000.

Drainage—Blytheville, Ark.—It is proposed to construct systems in Drainage District No. 16 and the Keystone Drainage District.

Levee—Helena, Ark.—It is planned to construct a 40-ft. levee through the Cotton Belt Levee District. N. E. Offenheiser is Ch. Engr.

Drainage—Pine Bluff, Ark.—A petition has been granted by the County Court for a Drainage District No. 5. The district lies three miles north of Wabbaseka and drains into District No. 3 and includes about 15,000 acres. White & Humphreys, Engr., has made surveys of this tract.

Fire Alarm System—Austin, Tex.—The City Council has decided to call an election for the purpose of voting on the issuance of $25,000 in bonds for an automatic fire alarm system. John O. Johnson is City Clk.

Skating Rink—Seattle, Wash.—The Seattle Ice Coliseum Co. has been incorporated in Seattle with a capital of $300,000, for the purpose of erecting an ice coliseum. J. P. Clemson, Portland, Ore., owner of the Portland Ice rinks is interested. The building will be 175x350 ft. and will have a portable floor, and a $50,000 refrigerating plant.

+Fill—Seattle, Wash.—The contract for the construction of Duwamish Fill No. 3 has been awarded by the Board of Public Works to HOLT & JEFFREY, Railway Exchange Bldg., at $26,976.

Wharf and Building—Seattle, Wash.—Bids will be received by C. E. Remsberg, Secy., Port of Seattle Comn., until May 7, for the construction of the four-story store and office building and wharf at the foot of Marion St. The cost will be about $25,000.

+Boat—Seattle, Wash.—The contract for a 65-ft. gasoline power passenger and towboat to operate in Bering Sea has been awarded to the McATEER SHIPBUILDING CO. The cost will be about $10,000.

+Ship Conveyors—Seattle, Wash.—The following bids were received by the Port of Seattle Commission, Central Bldg., for furnishing ship conveyors for use at the port docks: BRINKLEY SUPPLY CO., $10,480 (awarded contract); Meese & Gottfried, $11,817; Puget Sound Machinery Depot, Seattle, $ 0,986; Union Machinery & Supply Co., Seattle, at $15,829.

+Concrete Snow Sheds—Skykomish, Wash.—The contract for constructing the concrete snowshed, 1300 ft. in length, has been awarded by the Great Northern Ry. Co. to HENRY & McFEE, White Bldg. The estimated cost is $250,000.

Wharf—Tacoma, Wash.—It is reported that plans are being prepared for a municipal wharf to cost $105,000. W. C. Raleigh is City Engr.

Repairs To Drydock—Portland, Ore.—The Portland Drydock, according to a recent decision of the Commissioners, will be repaired at a cost of $40,000. J. B. Lockwood, Engr., is in charge.

Repairs To Dock—Portland, Ore.—Plans have been prepared by J. R. Holman, Ch. Engr., Oregon, Washington R.R. & Navigation Co., Portland, for the repairing of Ainsworth Dock. The estimated cost is $10,000.

Mausoleum—Long Beach, Calif.—Plans are being prepared for a large mausoleum to be built in Sunnyside Cemetry by the Long Beach Cemetery Association. It will be of granite, reinforced concrete and marble, 50x150-ft. and is estimated to cost $100,000.

Bulkhead—Newport Beach, Calif.—The Board of Trustees will receive competitive plans and specifications from engineers until May 10, for the construction of a bulkhead for the protection of the ocean front. L. S. Wilkinson is City Clk.

Pier—Redondo, Calif.—The citizens have voted in favor of erecting a pier extending from the end of the bath house to Emerald St. It will be 900 ft. long, of reinforced concrete. George W. Harding, Washington Bldg., Los Angeles, Calif., has been selected as Consult. Engr. The cost is estimated at $121,000. Noted Feb. 25 and Apr. 1.

Pier and Aërial Tramway—Venice, Calif.—An application has been made by the Abbott-Kinney Co., for the construction of a pier and aërial tramway. The plans provide for the construction of an extension, 100x150 ft., to the Windward Ave. pier.

+Drainage—Greenfield, Ont.—The contract for the construction of the River Baudette drain has been awarded to the J. G. & D. B. CAMERON, Berwick, Ont., at $21,417. J. D. Cameron is Township Clk. Magwood & Stidwell, Cornwall, is Engr. Noted Apr. 1.

Concrete Walls—Ottawa, Ont.—The Department of Public Works has included $20,000 in this year's estimates for extensions to the concrete walls of the Rideau Canal adjoining the Government Driveway. R. C. Desrochers is Secy.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

+Boston, Mass.—C. H. Blackall, Arch., 20 Beacon St., has prepared plans for the construction of four additional stories to the Colonial Theater Bldg. Construction work will begin about May 15.

+Boston, Mass.—The contract for the construction of a ten-story office and bank building at Chauncey and Bedford St. has been awarded to GEORGE W. HARVEY CO., 201 Devonshire St., Boston. The estimated cost is $450,000.

Cambridge, Mass.—Edward B. McGirr, Arch., 6 Beacon St., Boston, has prepared plans for the construction of a 12-room school on Oxford and Sacramento St. Jere F. Downey is Supt. of Pub. Bldgs.

Chicopee, Mass.—Bids will be received until 7 p.m., May 8, by John C. Gray, Supt. of Bd. of Education for the construction of an addition to the high school. Noted Apr. 1.

Lawrence, Mass.—All bids received for the construction of the Central Grammar School have been rejected by the Board of Aldermen. It has been decided that the Public Property Department will construct the school under the supervision of Alderman Flanagan. Estimated cost, $250,000. Noted Feb. 4 and Apr. 1.

Springfield, Mass.—The New England Telephone Co. plans to construct an addition to its building on Worthington St. Work will not be started before the spring of 1916. H. S. Hyde is Vice-Pres.

Worcester, Mass.—Bids will be received until noon, May 5, by the Superintendent of Public Buildings for the construction of a three-story fireproof addition to the Cambridge St. School No. 2 O. C. S. Ziroli, 306 Main St., is Arch. and George C. Halcott is Supt. of Pub. Bldgs. Noted Mar. 11 and Apr. 8.

Worcester, Mass.—Plans are being prepared by George C. Halcott, Supt. of Pub. Bldgs., Room 35, City Hall, for the construction of an eight-room addition to the Midland St. School.

Worcester, Mass.—The date for receiving bids for the construction of an addition to the North High School has been extended from May 3 to May 6. George C. Halcolt, Supt. of Pub. Bldgs., Room 35, City Hall, will receive the bids. Estimated cost, $190,000. Noted Oct. 29, Jan. 21, Apr. 15 and 22.

Providence, R. I.—Work will be started about May 1 on the construction of a six-story theater and office building at Westminster, Chapel and Snow St. for B. F. Keith. The estimated cost is $400,000. G. Henri Desmond, Arch., 15 Beacon St., Boston, Mass., has prepared plans.

Providence, R. I.—Bids will soon be received for the construction of the Mt. Pleasant Ave. School and an assembly hall. Murphy, Hindle & Wright, 146 Westminster St., is Arch. Noted July 9 and Sept. 10.

Providence, R. I.—Emery Bros. has purchased a site at Washington, Aborn and Empire St. for the construction of a theater.

Hartford, Conn.—Isaac A. Allen, Arch., has prepared preliminary plans for the construction of a school for the First School District.

+Hartford, Conn.—The contract for the construction of an addition to the Hartford Hospital has been awarded by the Building Committee to the JAMES H. GROZIER CO., Hartford, at $115,788. A. Raymond Ellis, Hartford, is Arch. Noted Aug. 27.

Alexandria Bay, N. Y.—Byron B. Taggert, Watertown, and associates, contemplate the construction of a hotel. Estimated cost, $1,500,000.

✚Beacon, N. Y.—JOHN THATCHER & SON, 60 Park Ave., Brooklyn, has been awarded the contract for the superstructure of the two-story 60x100-ft. passenger station for the New York Central R.R. The contract for the foundation was awarded to the CASPER RANGER CONSTRUCTION CO., 20 Broad St., Holyoke, Mass. Estimated cost, $75,000.

Beacon, N. Y.—Bids will be received until May 3 by the Board of Education, Union Free School District No. 8, for the construction of a high school on Fishkill Ave. Estimated cost, $48,000. Homer H. Stuart is Pres. Noted Jan. 14, Feb. 18, Mar. 18 and Apr. 8.

Buffalo, N. Y.—Green & Wicks, Arch., 110 Franklin St., is preparing plans for the construction of a group of buildings to be used as a tuberculosis hospital for the West Farm Hospital Commission. The estimated cost is $600,000.

Ithaca, N. Y.—Bids will be received until May 6 for the construction of two dormitory buildings at Cornell University. Day & Klauder, 925 Chestnut St., Philadelphia, Penn., is Arch. Noted Aug. 6 and Oct. 1.

New Rochelle, N. Y.—Hazzard & Erskine, Arch., 437 Fifth Ave., New York, has prepared plans for the construction of two five-story buildings at 745 and 747 Fifth Ave., New Rochelle, for William E. Iselin. Estimated cost, $100,000.

New Rochelle, N. Y.—The Board of Education is considering the construction of two additional wings to the high school. Estimated cost, $175,000.

New Rochelle, N. Y.—The Thanhouser Film Corporation, 46 Main St., plans to construct an additional studio at its plant. The estimated cost is $200,000. A. E. Jones is Secy.

✚New Rochelle, N. Y.—THOMAS J. WATERS CO., 271 West 125th St., New York, has been awarded the contract for the construction of a building at Mayflower Ave. and Mt. Joy Pl. for the Church of the Holy Family. Estimated cost, $50,000.

New York, N. Y.—(Borough of Bronx)—Bids will soon be received by the Department of Health, Walker & Center St., New York, for the construction of a three-story dormitory for females on North Brother Island. Clinton & Russell, 32 Nassau St., New York, is Arch.

✚New York, N. Y.—(Borough of Brooklyn)—The contract for the construction of a motion picture theater at Robinson St. and Nostrand Ave. for Glynne & Ward, Halsey St. and Knickerbocker Ave., has been awarded to McCOUGH & HOEY, 16 Court St., Brooklyn. Estimated cost, $50,000. Noted Apr. 22.

✚New York, N. Y.—(Borough of Manhattan)—The contract for the construction of two buildings on Wards Island for the State Hospital Commission has been awarded to the EMERSON BUILDING CO., 103 Park Ave., New York. The estimated cost is $260,000. Noted Dec. 10 and Feb. 25.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by Peabody, Wilson & Brown, Arch., 389 Fifth Ave., for the construction of a 12-story, 48x88-ft. store and loft building at 15 West 36th St. for John I. Downey, 410 West 34th St. The estimated cost is $150,000.

New York, N. Y.—(Borough of Manhattan)—The Pennsylvania R.R. and the National Retail Dry Goods Association, 33 West 42d St., plan to construct a 20-story 197x200-ft. building opposite the Pennsylvania R.R. Station, Seventh Ave. between 32d and 33d St.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared for the construction of a 16-story building on the site of the Hotel Lincoln, Broadway and 52d St. The estimated cost will be $1,500,000. The building will be used exclusively by film and motion picture concerns. George F. Backer is interested.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were received by the Board of Health, Department of Health, Center and Walker St., for the construction and alterations to the medical staff house and nurses' home at the Willard Parker Hospital, foot of East 16th St., New York, as follows: Cramp & Co., 25 East 26th St., $170,600; Conners Bros. Co., 64 West 88th St., $160,450; J. T. Brady & Co., 103 Park Ave., $157,510; Ruggles, Robinson Co., 331 Madison Ave., $170,472; Emerson Building Co., 103 Park Ave., $168,500; Kelly & Kelly, 12th St., Long Island City, $169,300; McHarg-Barton Co., 171 Madison Ave., $164,000; Harby Abroms & Melius, 30 East 42d St., $153,900. Noted Apr. 8.

Poughkeepsie, N. Y.—(Official)—Oscar Cassun, Chamberlain, advises us that at the election recently held the question of issuing $170,000 in bonds was defeated. The proceeds would have been used for the construction of a city hall. Noted Apr. 8.

Syracuse, N. Y.—The Board of Education plans to construct an addition to the North High School. Estimated cost, $175,000.

Syracuse, N. Y.—Bids will soon be received by the Vocational High School Commission for the construction of vocational high school buildings. Edwin Nottingham is Pres.

Utica, N. Y.—Bids will be received until May 15 by T. P. Barnett Co., Arch., 724 Central National Bank Bldg., St. Louis, Mo., for the construction of a four-story, 127x192-ft. addition to the Martin Hotel, Utica. Estimated cost, $250,000.

Utica, N. Y.—Contracts will be awarded about May 1 by H. Lux of the Alhambra Amusement Co., Alhambra Theater, for the construction of a theater. Estimated cost, $75,000. Noted Apr. 1.

Watertown, N. Y.—An election will be held May 4 to vote on the question of issuing $65,000 in bonds, the proceeds to be used for the construction of a school on Arsenal St. Noted Dec. 31.

✚Yonkers, N. Y.—The contract for the construction of a church at Park Hill Ave. and Oak Pl. for the Church of Our Lady of Mount Carmel has been awarded to the F. S. POLITO CONSTRUCTION CO., Yonkers. N. Serracino, 1170 Broadway, New York, is Arch.

✚Glen Ridge, N. J.—The contract for the construction of an addition to the school at Bloomfield and Ridgewood Ave. for the Board of Education has been awarded to WILLIAM G. SHARWELL & CO., 377 North Fifth St., Newark. Estimated cost, $60,000. Noted Dec. 31.

Hoboken, N. J.—Bids will be received until 2 p.m., May 3, by the Board of Commissioners of Hoboken for the alterations to the City Hall.

Newark, N. J.—The Finance Committee of the Common Council is considering the question of appropriating $50,000 or $60,000, the proceeds to be used for repairing the Center Market buildings.

Trenton, N. J.—The State Legislature is considering a bill providing for the appropriation of $5,000,000 in bonds. The proceeds will be used for improvements to state buildings.

West New York, N. J.—Plans have been approved for the construction of three four-story buildings at Hudson Ave. and 12th St. for Weisberg & Cadd, Hudson Ave. and 11th St. Estimated cost, $90,000 Noted Apr. 22.

Clearfield, Penn.—The citizens on Apr. 16 voted in favor of issuing $100,000 in bonds, the proceeds of which will be used for the construction of a high school.

✚Easton, Penn.—The contract for the construction of a one-story chapel at Lafayette College has been awarded to F. L. HOOVER & SONS, INC., 18 South Seventh St., Philadelphia. The estimated cost is $90,000. William S. Kirkpatrick is Pres. of the college. Noted Nov. 12.

Harrisburg, Penn.—Plans, prepared by Charles Howard Lloyd, Arch., for the construction of a school in the Tenth Ward, have been approved by the School Board. Estimated cost, $90,000. Noted Mar. 25.

Johnstown, Penn.—Plans have been prepared by J. T. Comes, Arch., Pittsburgh, for the construction of a school for St. John's Parish. The estimated cost is $45,000.

Lancaster, Penn.—The citizens have voted in favor of issuing $250,000 in bonds. The proceeds will be used for the construction of a high school for boys.

Lansdowne, Penn.—Bids will soon be received by the First Presbyterian Church for the construction of a 208x240-ft. church at Lansdowne and Greenwood Ave. The estimated cost is $75,000.

✚McKeesport, Penn.—(Official)—The contract for the construction of a two-story high school for the Board of Education has been awarded to the DAWSON CONSTRUCTION CO., May Bldg., Pittsburgh, at $147,000. W. T. Norton is Secy. of Bd. of School Dirs. Noted Mar. 11 and Apr. 8.

✚Philadelphia, Penn.—The contract for the construction of a five-story, 54x105-ft. hospital at Spruce opposite 36th St. for the University of Pennsylvania has been awarded to IRWIN & LEIGHTON, 126 North 12th St., Philadelphia. Estimated cost, $130,000.

Philadelphia, Penn.—Preliminary plans are being prepared by Simon & Bassett, Arch., 1112 Chestnut St., for the construction of a 12-story office building at 19th and Chestnut St. for the Philadelphia Medical Society.

Baltimore, Md.—Parker, Thomas & Rice, Arch., is preparing plans for the construction of a 12-story office building at Liberty and Lexington St. for the Colsolidated Gas, Electric Light & Power Co. Estimated cost, $1,000,000.

✚Baltimore, Md.—The contract for the construction of the five-story Burford apartment building on Charles St. has been awarded to EDWARD BRADY & SON, Baltimore. Estimated cost, $60,000. Parker, Thomas & Rice is Arch.

Washington, D. C.—St. Patrick's Church plans to construct an institution on Wisconsin Ave. at Massachusetts Ave. Heights. Estimated cost, $800,000.

Charleston, W. Va.—W. S. Mason plans to construct a three-story apartment house. The estimated cost is $50,000. A. G. Higginbotham is Arch.

Grafton, W. Va.—(Official)—Bids will be received until noon, May 5, by W. M. Watkins, Secy. of Bd. of Education, for the construction of a high school. The estimated cost is $80,000 to $85,000. Frank L. Packard, Columbus, Ohio, is Arch. Noted Apr. 22.

✚Huntington, W. Va.—GEORGE WATTS has been awarded the contract for the construction of the Fall Festival Bldg. Estimated cost, $50,000.

Huntington, W. Va.—The Fifth Ave. Baptist Church plans to construct a church at an estimated cost of $100,000. M. L. Woods is Pastor.

St. Marys, W. Va.—An election will be held May 11 to vote on the question of issuing $50,000 in bonds for the construction of a high school for Pleasants County.

Greensboro, N. C.—An election will be held about June 1 to vote on the question of issuing $150,000 in bonds. The proceeds will be used for the construction of a county courthouse. Noted Feb. 4.

Salisbury, N. C.—The Directors of Livingston College plan to rebuild the dormitory for girls which was recently destroyed by fire. Estimated cost, $50,000.

Columbia, S. C.—Urquhart & Johnson, Arch., is preparing plans for the construction of a high school. The estimated cost is $125,000. Noted Mar. 18.

Columbia, S. C.—Plans are being prepared by Wilson & Sompayrac, Arch., for the construction of an addition to the Logan School. Estimated cost, $40,000. Noted Mar. 18.

Columbia, S. C.—The School Board has commissioned George E. La Faye, Arch., to prepare plans for the construction of a school for negroes. Estimated cost, $50,000. Noted Mar. 18.

★Greenville, S. C.—Bids will be received until noon, May 10, by the Greenville County Jail Commission for the construction of a jail. J. T. Lawrence is Arch. and J. I. West is Chn. of Comn.

Hartsville, S. C.—The Directors of Coker College plan to construct a general service building. The estimated cost is $120,000.

✚Atlanta, Ga.—The contract for the construction of a three-story apartment at Piedmont Ave. and 14th St. for the

North Park Investment Co. has been awarded to the MACKLE CONSTRUCTION CO. Estimated cost, $50,000.

Bellaire, Ohio—Plans have been prepared by C. W. Gates, Arch., Wheeling, W. Va., for the construction of a three-story building at 32d and Union St. for the Farmers' & Merchants' National Bank. Estimated cost, $40,000.

+Cincinnati, Ohio—The OHIO BUILDING & CONSTRUCTION CO., 1434 Main St., Cincinnati, at $120,097, has been awarded the contract for the construction of the Warsaw School on Glenway near Sunset Ave. Noted Mar. 25.

Cleveland, Ohio—Plans are being prepared by W. R. McCormack, Arch. of Bd. of Education, Rockwell and East Sixth St. for the construction of the High School of Commerce and Administration Bldg The estimated cost is $1,000,000. Noted Mar. 25.

Etna, Ohio—Bids will be received until noon, May 18, by S. Parker, Clk., Bd. of Education, for the construction of a grade and high school building. F S. Rusk and C. Sheets, 145 North High St., Columbus, are Arch.

Oxford, Ohio—Plans have been prepared by Louis G. Dittoe, Arch., 617 Provident Bank Bldg., Cincinnati, for the construction of a three-story, 91x231-ft. building to be known as the George G. Ogden Hall at the Miami University. Estimated cost, $260,000. Raymond M. Hughes is Pres.

Bloomington, Ind.—The Carnegie Library Board has purchased a site at Washington and Sixth St. for the construction of a library. Estimated cost, $40,000.

Whitestown, Ind.—Bids will be received by Walter Schooler, Trustee of the School Bd., until 1 p.m., May 15, for the construction of a high school.

Detroit, Mich.—The Detroit City Gas Co., Clifford St. and Washington Blvd., has purchased a site at Bagley Ave. and Clifford St. The company plans to construct an office building. Victor F. Dewey is Gen. Mgr.

Detroit, Mich.—The Delray Lodge, No. 177, Knights of Pythias, plans to build a three-story temple on Fort St., to cost $50,000. Varney & Varney, 307 Palmer Bldg., is Arch.

+Flint, Mich.—The contract for the construction of the Fairview Grammar School has been awarded to BURKE, SMITH & NELSON, Flint. Estimated cost, $50,000. Noted Feb. 4.

Lansing, Mich.—The State House of Representatives has passed a bill appropriating $60,000 for rebuilding the main building at the Michigan School for the Blind.

Chicago, Ill.—Plans are being considered by the County Commissioners for the construction of a county jail. The estimated cost is $2,000,000. Noted Apr. 8.

Chicago, Ill.—Jones, Linick & Schaefer, 110 South State St., is having plans prepared for a motion-picture theater on State St., to cost $600,000. Marshall & Fox, 38 South Dearborn St., is Arch.

Chicago, Ill.—John Burnham & Co., 39 South La Salle St., contemplates the building of a motion-picture theater and restaurant on State St., estimated to cost $1,000,000. Holabird & Roche, 104 South Michigan Ave., is Arch.

Rock Island, Ill.—Plans have been prepared by C. D. McLane, Arch., 301 Robinson Bldg., for the construction of a three-story, 42x120-ft. jail. The estimated cost is $75,000. Contracts will be awarded about May 25. Noted Mar. 4.

Eau Claire, Wis.—The citizens voted in favor of issuing $50,000 in bonds, the proceeds of which will be used for the construction of a city hall. Noted Mar. 11.

+Green Bay, Wis.—The Wisconsin Deaconess Hospital Association has awarded the following contracts for the construction of its $65,000 hospital: General contract, APPLETON CONSTRUCTION CO., Appleton, Wis.; heating, INDUSTRIAL HEATING CO., Milwaukee, Wis.; plumbing, GEORGE F. REEKE, Green Bay, Wis. P. T. Benton, 605 Manhattan Bldg., is Arch. Noted Mar. 4.

Green Bay, Wis.—Foeller & Schober, Arch., is preparing plans for a two-story, 50x100-ft. brick addition to the McCartney National Bank. The estimated cost is $75,000. Bids will be asked about May 10.

La Crosse, Wis.—(Official)—Bids will be opened about May 1 by Parkinson & Dockendorff, Arch., for the construction of a four-story, 45x46-ft., and a three-story, 41x48-ft. wing to the hospital of the Sisters of St. Francis. The estimated cost is $100,000. Noted Mar. 11 and 18.

Madison, Wis.—Plans have been prepared for the construction of an armory at Camp Randall. The estimated cost is $250,000. T. G. Wrightson, University of Wisconsin, is interested.

Milwaukee, Wis.—Bids will be received until 10:30 a.m., May 6, by the Department of Public Works for the construction of a municipal hospital for contagious diseases on Mitchell St., between 18th and 19th Ave. P. Braman is Deputy Comr. Noted Sept. 10.

Milwaukee, Wis.—Frank M. Harbach, Secy. of Bd. of School Dir., will receive bids until 8 p.m., May 11, for the completion of the Washington High School. The total cost is estimated at $325,000. Van Ryn & De Gelleke is Arch. Noted Feb. 11.

Milwaukee, Wis.—Armand D. Koch, Arch., Wells Bldg., will soon award the contract for the construction of a ten-story, 80x135-ft., steel and tile mercantile building for the Ticonic Investment Co. It is estimated to cost $250,000. Noted Nov. 5, 1914.

Waterloo, Iowa—The Forum Land & Improvement Co. was recently incorporated with a capital of $135,000. The company plans to construct a coliseum and exposition hall at 11th and Sycamore St. J. R. Sims is Secy.

Milaca, Minn.—Kirby T. Snyder, Arch., Plymouth Bldg., Minneapolis, has prepared plans for the construction of a high school at Milaca. The estimated cost is $70,000.

Milan, Minn.—Bids will be received by C. R. C. Blom, Clk. of the School Bd., until May 4 for the construction of a high school. C. E. Edwins, 911 Northwestern Bldg., Minneapolis, Minn., is Arch.

St. Paul, Minn.—The Legislature has passed a bill appropriating $500,000 for the construction of a building at Cedar and Central St. for the State Historical Society. The State Board of Control is in charge. C. H. Johnson, Capital Bank Bldg., is Arch. Noted Nov. 26.

Hastings, Neb.—(Official)—At a recent election the question of issuing $130,000 in bonds was defeated. The proceeds was to have been used for remodeling schools at Hastings. R. S. Ramsey is Secy. of Bd. of Education Noted Apr. 15.

Lincoln, Neb.—Plans are being prepared by Berlinghoff & Davis, Arch., 610 Security Mutual Bldg, for remodeling a 15-story building at 12th and O St. for the Security Mutual Life Insurance Co. Estimated cost, $175,000.

Omaha, Neb.—The State Senate has passed a bill appropriating $150,000 for the construction of a hospital at the Omaha Medical College.

Havre, Mont.—Bonds to the amount of $125,000 have been sold. The proceeds will be used for the construction of a courthouse. Noted Dec. 31.

Lewistown, Mont.—Plans are being prepared by Link & Haire, Arch., Billings, for the construction of a church, to cost about $50,000.

Miles City, Mont.—Official)—Bids will be received until 2 p.m., May 11, for the construction of a school. Estimated cost, $60,000. J. B. Collins is Clk. of School District No. 1. Custer County. Noted Mar. 11.

Columbia, Mo.—The Columbia Hotel Operating Co. plans to construct a hotel at Columbia. Estimated cost, $120,000. George D. Barnett and Fred W. Schramm, St. Louis, are interested.

Rolla, Mo.—Bids will be received by the Board of Education until 8 p.m., May 1, for the construction of a high school. H. H. Hohenschild, 310 Navarre Bldg., St. Louis, Mo., is Arch. C. M. Knapp is Pres. of Bd. of Education.

Beaumont, Tex.—A site has been purchased on Forsythe St. by Jefferson Lodge No. 55, Knights of Pythias, for the construction of four-story, 60x90-ft. brick hall, to cost $40,000. Walter J. Crawford is Chn. Bldg. Com.

+Dallas, Tex.—WALTON CONSTRUCTION CO. has been awarded the contract for the erection of a lodge building for Knights of Pythias of Texas, at an estimated cost of $73,600. W. Sydney Pittman is Arch.

Okmulgee, Okla.—(Official)—At the election recently held the question of issuing $150,000 in bonds for the construction of a county courthouse failed to carry. C. W. Gorce is County Clk. Noted Mar. 11.

Okmulgee, Okla.—(Official)—Bids will be received about May 15 for the construction of a high school. Smith, Rea & Lovitt, 602 Finance Bldg., Kansas City, Mo., is Arch. The estimated cost is $100,000. Noted Apr. 15.

Perry, Okla.—The citizens will vote May 18 on the question of issuing $100,000 in bonds, the proceeds to be used for the construction of a courthouse.

Denver, Colo.—(Official)—J. B. Benedict, Arch., has prepared plans for the construction of a three-story hospital with two 40x240-ft. wings. The estimated cost is $300,000. An election will be held May 18 to vote on the question of issuing bonds for this purpose. Noted Apr. 8.

Denver, Colo.—(Official)—An election will be held May 18 to vote on the question of issuing bonds for the construction of a municipal building to be used as fire and police headquarters. Walter L. Rice, City Hall, is Ch. of Bldg. Dept. and J. H. Mitchell is Secy. Noted Apr. 8.

Salt Lake City, Utah—(Official)—Bids will be received until May 5 by the Board of Education, for the construction of the first unit of the 26-room school at 13th E. and Seventh S. St. F. D. Rutherford is Arch. The estimated cost of the first unit is $82,000. Noted Apr. 8.

Port Townsend, Wash.—The Seattle, Port Angeles & Lake Crescent Railway Co. plans to construct terminals in Port Townsend. Estimated cost, $50,000. E. O. Reeder, Seattle, is Ch. Engr.

Grants Pass, Ore.—The date for receiving bids for the construction of a three-story courthouse has been extended to May 5 by the County Commissioners. Estimated cost, $100,000. E. E. McClaren, 525 Lumber Exchange Bldg., Portland, is Arch. Noted Mar. 4 and 25.

Portland, Ore.—Construction work will soon begin on the building at Fifth and Stark St. for the First National Bank and the Security Savings & Trust Bank. Estimated cost, $400,000. Noted July 30, Sept. 10 and Dec. 3.

+Portland, Ore.—A. C. MEYER, Portland, has been awarded the contract for the construction of a four-story, 90x100-ft. building at Broadway and Davis St. for Gay Lombard. Estimated cost, $40,000.

The Dalles, Ore.—The Knights of Pythias are planning to construct a three-story building. Estimated cost, $50,000.

Los Angeles, Calif.—The Bellevue Hospital Corporation, recently incorporated, plans to build a hospital, to cost $60,000. G. T. Renaker is interested.

Oakland, Calif.—The trustees of the Second Church of Christ, Scientist, have awarded the contract for the construction of a church to the VAN-SANT-HOUGHTON CO., 503 Market St., San Francisco, at $63,000.

INDUSTRIAL NOTE

The Wyckoff Pipe & Creosoting Co., Inc., has removed its offices from 50 Church St. to the Forty-Second St. Bldg., 30 East 42d St., New York, N. Y.

New Engineering and Contracting Co.—John W. Cowper, for many years Vice-President of the Lackawanna Bridge Co., Buffalo, has resigned to take the Presidency of the John W. Cowper Co., Inc., recently organized, to do a general engineering and contracting business with offices in the Fidelity Bldg., Buffalo. F. D. Huntington, Vice-Pres., was for some years connected with the J. G. White Co., in its English contract department and more recently with the Brazil Rys. The new company will specialize in building contracts of all kinds.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

BUSINESS STEADILY INCREASING IN VOLUME

Every indication points to a period of prosperity for this country, the like of which has never been seen. Increased business is slowly being built on the foundation of unusual returns to agricultural interests. The self-denial of the last few months, following a period of personal retrenchment over a series of years, has resulted in the accumulation of a vast fund which is now awaiting investment. The financial condition of the country was probably never on a more stable basis, nor were there ever such opportunities for the extension of credit. In many lines there has been no increase in business felt, but in others, particularly those related to munitions of war, the business booked has been phenomenal.

A large part of the increased business is due to the unbounded confidence of men of large affairs who are willing to risk their time and capital in new enterprises. The machine tool builders have enjoyed a period of activity they scarcely dared to hope for, and this is extending throughout the lines of metalworking machinery.

The Construction News Department last week published more items of new construction than ever before in the history of the paper. A great many of these reports were projects, but they indicate that construction work will soon go ahead.

Every effort was made by bankers and financial institutions to keep down construction work to the lowest possible point from early last spring until recently. Now that financial institutions have a plethora of money they have been anxious to let it go out on short-term loans. Since this is impossible in many cases, they are letting down the bars for long-time investments. It is natural, under such circumstances, that there should be more projects developed than before in many months. While there is no likelihood of there being a surplus of work for some time, it is more than possible that it will be difficult to secure labor later in the year to complete much of the work under way.

It is estimated that it will be impossible to operate the steel mills to full capacity because of the shortage of raw labor and the inability to secure more from abroad. If such is the case in the steel trade, it will appear much more in the construction field.

It was said a few years ago by one versed in business, that the price of copper served as more of a barometer of trade activity than the price of pig iron. Events since that time, while they have not proven such a theory, have at least showed that there is substantial ground for the statement. If this is true, we are on the threshold of a veritable boom, because copper is now at a higher price than at any time during the last eight years, and the demand continues unabated.

Sales of pig iron in the last two months were about three times as much as during the first two months of the year.

Building returns show a steady gain in almost all sections of the country except New England and the Pacific Coast States.

Orders for munitions of war are coming in so fast that most of the shops able to do work of this character have all they can do. The activity is stimulated all along the line for what one shop is unable to manufacture is turned over to another.

Some long delayed projects are being reopened—the Muscle Shoals Development in Alabama, the Municipal Bridge at St. Louis, the Transit System in Philadelphia and a terminal in Chicago.

LABOR

A few strikes have occurred, and the building strike in Chicago was of some importance. In general, however, labor seems to be awaiting a more propitious time before making further demands. There is a general impression that a shortage of rough labor will develop later in the year unless more workers come from the south of Europe, which seems highly improbable at this writing.

CEMENT, LIME AND BRICK

Portland Cement—Some extremely low prices have been made in the New York market. It is reported on excellent authority that $1.19 has been done. This is equivalent to about 53c. per bbl. in bulk at the mill. How any of the mills which would sell at a figure like that can make cement anywhere near that price is a question. It is probably below cost. Other mills are quite generally asking $1.23, but one important interest is getting $1.31. To describe the market as far as New York and vicinity are concerned would be to say that is is spotty. There is no other term which can readily be applied to it. Dealers are stocked up and have large supplies on hand. Sellers of reinforcing steel report that they are busier figuring on estimates and that the outlook is very satisfactory. Cement manufacturers can see no hope in the future. It is perhaps the dullest time in the cement trade that there has been in the last four years. Unless signs fail, the cement industry will pick up very shortly, and the gain will probably be more rapid than in other lines of industry. Some concerted effort has been made to establish export trade, but without any particularly great success. In New Jersey quite a little cutting is evident, particularly for one mill. In the West prices are fairly strong.

Quotations for cement, less the charge of 40c. made for bags, are as follows:

Chicago	$1.11	Boston	$1.46
Detroit	1.19	Cleveland	1.16
Jersey City	0.74	Duluth	1.32
New York	0.82	Minneapolis	1.30
St. Paul	1.30	Pittsburgh	1.00

Brick—The market for brick shows more activity and prices are slightly firmer. As yet there is not enough business to seriously test quotations, and it remains to be seen whether an attractive offer would not bring somewhat lower prices. The delivery of brick to the New York market has been much larger so far this year than in the corresponding period last year. Hudson River common in New York are quoted at $5.75 to $6. In Newark, from yard, the price is $6.75.

Crushed Stone—Business is light, with no change in price. Sellers of crushed stone are not anxious to load up with long-time contracts at these prices, but on the other hand, if they do not take the business, some one else will. Some contracts are being made at the prevailing quotation, which is comparatively low, at 95c. for 1½-in. stone, $1.05 for ¾-in. stone.

Gravel—The prices of gravel are lower, and extremely low quotations have been made on subway gravel to stimulate business. Gravel which will pass Public Service Commission specifications, commonly known as subway gravel, sells at 95c. to $1. For 1½-in. gravel the price is 80c., while ¾-in. commands 85c. These prices are for barge lots of 500 cu.yd. delivered alongside of docks, New York.

Lime—Prices are somewhat easier, standard 300-lb. special finishing selling at $1.55 to $1.60, Eastern common at $1.15.

IRON AND STEEL

Pig Iron—After the excitement caused by the Buffalo buying movement, reported last month, pig iron was quiet. The amount of business that was uncovered by the reduction is considered a sign that general conditions are much more satisfactory than has appeared on the surface. In fact since that time and during all of April the character of the business done both by northern and southern furnaces indicated a healthy tone underlying the situation. Numerous orders were forthcoming. Prices remained normal except in the instance of the Birmingham furnaces selling at a 50c. reduction on one special lot of orders amounting to 100,000 tons, generally understood to be for speculation, although some mystery seems to be attached to the transactions. During April pig iron sales in all quarters amounted to about 550,000 tons, the bulk of the large orders being placed during the last week of the month. About one-half of the recent sales were made by southern furnaces at an advance of 25c. to 50c. per ton, but mostly at minimum prices as in other sections of the country. Nearly all of the transactions reported were for delivery over the second half of the year. Some improvement in buying of small lots for nearby shipment was to be noted. During March and April consuming and speculative interests purchased about 1,150,000 tons, while during January and February the total sales were only about 425,000 tons.

Prices for lots of 100 tons or over at the points named, are as follows: Cincinnati, Southern Foundry No. 2, $12.50 to $12.75; Cincinnati Northern Foundry No. 2, $14 to $14.50; Cincinnati Northern Foundry No. 3, $13.75 to $14. In New York quotations are as follows: No. 2X Northern Foundry, $14 to $14.25; No. 2 plain Northern Foundry, $13.75 to $14; No. 2 Southern Foundry delivered, $14 to $14.25. In Birmingham Southern Foundry No. 2, $9.50 to $9.75; Chicago Northern Foundry, $13.25 to $13.75; Pittsburgh bessemer iron is $14.55 and basic $13.45 including the 95c. freight rate from the valley to the Pittsburgh district.

Steel Rails—It was generally expected in the steel trade that the Pennsylvania R.R. would let its contracts for 160,000 tons of rails, or thereabouts, shortly after the bids were asked on about $25,000,000 worth of equipment, which announcement was made near the middle of the month. The company, however, did not make any move in that direction, and rail business has been extremely quiet. There seems to be no reason why the railroad should be in any haste to place contracts, as the mills have little or nothing to do and there is no danger that deliveries will be long delayed, even should orders go in late in the season.

The Chicago Rys. placed an important order involving 20,000 tons of girder rails with the Lorain Steel Co., and the Atlantic Coast Line bought 6000 tons, which went to the Tennessee Coal & Iron Co. The Burlington bought 2000 tons, and the Buffalo, Rochester & Pittsburgh about the same amount.

It is recognized that the railways have considerable tonnage left over from last year. It is more or less generally understood that there has been considerable bickering regarding the price. The mills have steadfastly refused to make any concessions, nor is it likely that they will. The Public Service Commission of New York will soon put out its specifications for 5000 tons of 100-lb. rails, a Western railway has purchased 5000 tons. For the first time in several years there has been a fairly spirited demand for bolts, spikes, tieplates, and other track fastenings. This has had no effect on prices as yet, all of which are low. The standard prices for lots of 1000 tons are as follows: Standard sections of bessemer, $28; open hearth, $30; both per net ton and f.o.b. Pittsburgh; girder rails in 30-ft. lengths are $36.40 per gross ton, and in 60-ft. lengths $38.40 per gross ton, both f.o.b. New York. Other quotations f.o.b. Pittsburgh for large lots, the price being given in cents per pound, are as follows: Standard sections, 1.25c.; 25 to 30 lb., 1.15c.; 15 to 20 lb., 1.20c.; 12 to 18 lb., 1.25c.; 8 to 12 lb., 1.30c. Relaying rails, standard sections both Pittsburgh and Chicago, are held at $23 to $24. Light relaying rails can be had at around $22 to $22.50 Chicago.

Structural Shapes—The price of 1.20c. is generally asked, although it is cut frequently. The favorite method is to offer concessions on fabricated steel work. Some extremely low prices have been made, particularly for subway work in New York and one or two apartment houses, which developed unusually keen competition. One of the largest jobs is for 24,000 tons of fabricated work for the approach to the Municipal Bridge, St. Louis. This matter has been dragging through the courts and various injunctions for several years, but now bids fair to be completed. Numerous jobs have been awarded within the last month; one of the large ones outside of the subway work is for the Frick Arcade in Pittsburgh, involving 6000 tons, but most of the work has been small. Competition, however, has been particularly keen. Quotations are slightly firmer; while the base price is $1.20 yet there is some question whether this has been strictly maintained. For I-beams 3 to 15 in., channels 3 to 15 in., angles 3 to 6 in., T's 2 to 3 in. and over, $1.20. Other quotations quote I-beams over 18 in., H-beams over 18 in., channels over 15 in., angles over 4 in., $1.25. T's $1.25, deck beams and bulb angles $1.55, handrail T's $2. Cutting to specified lengths is charged at the following rates: 3 ft. to 2 ft. inclusive, 25c. per 100 lb.; 2 ft. to 1 ft. inclusive, 50c. per 100 lb.; less than 1 ft., $1.55. No charge is made for cutting to lengths over 3 ft. In Chicago, the base price for mill deliveries is $1.39. In Philadelphia, the base price is $1.31, and in New York the base price is $1.36. In San Francisco quotations vary from $2 to $2.05. All these prices are per 100 lb.

Plates—No contracts have been taken during the month for shipbuilding work, but the plants seem to be fairly busy. There is room, however, for considerable improvement in this direction. The price is more firmly held than at any time within the last few months; but occasional concessions are made, amounting to a dollar per ton, from the regular quotation of $1.20 Pittsburgh. This is equivalent to $1.29 Chicago, $1.30 to $1.35 Philadelphia, and $1.32 to $1.37 New York. Of particular importance was the announcement that the Pennsylvania R.R. would buy or build in its own shops more than 16,000 freight cars, nearly 200 locomotives, and 181 all-steel passenger cars. The outlay for this equipment will aggregate $25,000,000. This is probably the largest equipment order or inquiry ever put out at one time, although last year the New York Central purchased 12,000 cars and the previous year the Pennsylvania bought 12,300 and the Harriman lines over 13,000. It is semi-officially announced that this order is simply to replace equipment, either worn out or obsolete, on the line, and does not really make any addition to the carrying capacity of the railway, except where cars of larger capacity are substituted for comparatively small cars. The Chicago & Northwestern has an inquiry in the market for 2000 box cars, the International Great Northern one for 1000 cars, and some small orders for various kinds of equipment are on the market.

Cast-Iron Pipe—The market is spotty. In Birmingham and Chicago, prices are slightly lower, but in New York somewhat higher. Philadelphia is in the market for about 10,000 tons of pipe, and Newark has a large inquiry in the market, but in general, cast-iron pipe is dull. One reason for this is the heavy buying in January and February, and comparatively little new work is coming up just at present. There is, however, a great deal of projected work, which will probably mean a largely increased demand for pipe later in the year. Prices for cast-iron pipe are as follows, per net ton: In Birmingham, 4 in. and larger, $19.50; in New York, 4 in., $21.50 to $22; 6 in., $20.50 to $21; in Chicago, 6 to 12 in., $24., larger sizes, $23; in Cleveland, 6 in. and larger, $24. Gas pipe can be had at $1 per ton higher in all markets.

Pipe—A few inquiries are coming out, but there have been no large orders, except 19 miles of 8-in. and 12 miles of 12-in. line pipe. Galvanized pipe is in fair demand, but prices are so high that it is only purchased when the purchaser has a good idea of where it can be sold. It is generally conceded that just as soon as the abnormal conditions incident to the war are over, galvanized pipe will be materially cheaper. In small sizes, pipe is not in very great demand, but jobbers and retailers are both allowing their stocks to remain at practically the minimum, though with any return of a good demand, the mills should quickly feel it. Discounts are unchanged, and for orders amounting to a carload or more, are as follows:

	Black	Galvanized
¾- to 2-in. steel, butt welded	80%	69½%
2½- to 6-in. steel, lap welded	79%	68½%
7- to 12-in. steel, lap welded	77%	66½%

At these discounts, the net prices of pipe per foot, in large lots, at Pittsburgh are as follows:

Diameter	Cents		Diameter	Cents	
	Black	Galvanized		Black	Galvanized
¾-in.	2.20	3.50	5-in.	31.00	47.00
1-in.	3.40	5.20	6-in.	40.40	61.00
1¼-in.	4.60	7.00	7-in.	55.00	80.00
1½-in.	5.50	8.40	8-in.	57.50	84.00
2-in.	7.40	11.15	9-in.	79.50	$1.16
2½-in.	12.20	18.60	10-in.	95.00	$1.38
3-in	16.10	24.20	11-in.	$1.06	$1.55
4-in.	22.90	34.50	12-in.	$1.17	$1.70

Sheets—The market is extremely uneven. Some of the independent mills are operating to full capacity, and those of a leading consumer to about 70% of maximum capacity. The demand for galvanized sheets is fair, but the price is so abnormal that no one wishes to lay in stocks nor contract for deliveries any distance ahead. This means that the market is subject to violent fluctuations at times, incident to the rise and fall of the spelter market. During the month a cut of $3 per ton was made in galvanized sheets, which was quickly followed by putting the price back to the old basis. Black sheets are in larger demand than galvanized, and there is no doubt that the high price of galvanized is restricting consumption. The following quotations are for large lots of sheets, Pittsburgh, and small lots from store, New York:

	Cents per Pound			
	Large lots Pittsburgh		Warehouse delivery New York	
	Black	Galv.	Black	Galv
No. 10	1.55	2.40	....	....
No. 12	1.55	2.50	....	....
No. 14	1.60	2.50	....	....
No. 16	1.65	2.60	2.35	3.25
Nos. 18 and 20	1.70	2.80	2.40	3.40
Nos. 22 and 24	1.75	2.90	2.45	3.55
No. 26	1.80	3.05	2.50	3.70
No. 27	1.85	3.25	2.55	3.85
No. 28	1.90	3.40	2.60	4.00

Steel Sheet Piling—Prices are practically without change at 1.50 to 1.60c. per lb., f.o.b. Pittsburgh.

Wire Rope—Manufacturers of rope report that business is somewhat better, but still not up to normal. Discounts are unchanged at 47 and 5 per cent., list, for galvanized, and 55 and 5 per cent. for bright. At these discounts the net prices of wire rope at the mills are as follows:

Diameter in Inches	Price per Foot		
	Cast Steel	Crucible Steel	Plow Steel
2½	$0.75	$0.90	$1.07
2¼	0.61	0.73	0.86
2	0.47	0.57	0.67
1¾	0.39	0.49	0.58
1½	0.28	0.34	0.40
1¼	0.20	0.24	0.27
1	0.13	0.15	0.18
¾	0.08	0.09	0.11
⅝	0.06	0.07	0.08

Freight Rates—The freight rates on finished steel products from the Pittsburgh district, including plates, structural shapes, merchant steel, bars, pipe fittings, plain and galvanized, wire nails, rivets, spikes, bolts, black sheets (except planished), chain, etc., are as follows, in cents per 100 lb.: Boston, 18.9c.; Buffalo, 11.6c.; Baltimore, 15.4c.; Cleveland, 10.5c.; Cincinnati, 15.8c.; Chicago, 18.9c.; Denver, Colo., 68.6c.; New Orleans, 30c.; New York, 16.9c.; Philadelphia, 15.9c.; St. Louis, 23.6c.; Minnesota and St. Paul, 32.9c.; Pacific Coast (all rail), 80c.

Merchant Steel—Jobbers have had more business within the last month than in several months past. The dealers have not advanced their quotations, and consumers who have formerly dealt in carload lots are now more willing to buy in small quantities and wait to see how the market will develop. Prices for small lots from jobbers' store of bar iron, steel angles, shapes, are as follows:

	Cents Per Pound
Refined iron:	
1 to 1⅞ in., round and square	1.85
1½ to 4 in. x ⅜ to 1 in.	1.85
1½ to 4 in. x ¼ to 5/16 in.	2.05
Norway bars	3.20
Burdens bar iron	3.15
Soft steel:	
¾ to 3 in., round and square	1.85
1 to 6 in. x ⅜ to 1 in.	1.85
1 to 6 in. x ¼ and 5/16	2.00
Rods—⅝ and 11/16 in.	1.95
Bands—1½ to 6x3/16 in. to No. 8	2.15
Beams and channels—3 to 15 in.	1.90
Angles:	
3 in. x ¼ in. and larger	1.90
3 in. x 3/16 in. and ⅛ in.	2.35
1½ to 2¾ in. x 3/16 in. and thicker	2.00
11½ to 2½ in. x ⅛ in.	2.10
1 to 1¼ in. x 3/16 in.	2.10
1 to 1¼ in. x ⅛ in.	2.15
Tees:	
1½ to 2½x¼ in.	2.05
1½ to 2½x3/16 in.	2.15
3 in. and larger	1.95

Old Materials—From all parts of the country similar reports are current. The market for old materials is lower; there is less doing than a month ago. In New York quotations have not been revised so drastically as in other parts of the country, but prices for pipes and flues are considerably lower. Quotations for scrap in that market, per gross ton, are as follows:

	Per Gross Ton
Heavy-melting steel scrap	$8.75 to $9.00
Pipes and flues	7.25 to 7.75
No. 1 railroad wrought	10.50 to 11.00
Stove plate	7.75 to 8.00
No. 1 machinery cast	10.50 to 11.00
Wrought turnings	6.25 to 6.50

In Chicago, quotations are lower than a month ago. There seems to be scarcely anything doing. Stocks are accumulating, and the railroads wish to turn their scrap into money, even at prevailing low prices. The following quotations are current for scrap in Chicago:

	Per Gross Ton
Heavy-melting steel scrap	$9.25 to $9.50
	Per Net Ton
No. 1 railroad wrought	$8.50 to $9.00
No. 2 railroad wrought	8.00 to 8.50
No. 1 cast scrap	9.00 to 9.25
Pipes and flues	6.75 to 7.25
Agricultural malleable	6.25 to 6.75
Railroad malleable	7.75 to 8.25

In Pittsburgh the only exception to the general downward revision is an advance of 25c. per ton in rerolling rails. There is very little inquiry in that market, particularly in the steel mills.

	Per Gross Ton
Heavy-melting steel scrap	$11.75 to $12.00
Rerolling rails	12.00 to 12.50
No. 1 foundry cast	11.75 to 12.00
Old car wheels	11.00 to 11.50
Machine shop turnings	7.75 to 8.00
Railroad malleable	9.75 to 10.00

Wire—Demands from abroad are neither so heavy nor so insistent as a month ago. The high price of spelter is limiting the production of galvanized wire. The advance to $1.60 which was made during the month in wire nails was not held. Annealed fence-wire sells at $1.35 to $1.40, galvanized wire in some cases $2.10 to $2.20; painted barbed wire, $1.60, all f.o.b. Pittsburgh. Woven wire fencing is quoted at 72% discount for carloads, 71% off list in 1000-rod lots, and 70% for small lots f.o.b. Pittsburgh.

Coke—An order for about 20,000 tons furnace coke for the year commencing July 1 has been closed. Another interest is asking prices on 15,000 tons per month, and still another on 12,000 tons per month. Prices continue low, and for prompt shipment $1.50 to $1.60 can be done. On contracts up to July 1 the price is $1.65, and for delivery during the remainder of 1915, $1.75. Foundry coke sells at $2 to $2.25 per lb., $2.15 to $2.30 on contract.

Swedish (Norway) Iron—A more decided activity is reported in the demand for this material. Little difficulty has been experienced in securing supplies, still there has been a slight increase in price. In general, the consumer's price per 100 lb. is quoted at $3.75 to $4. However, very large orders can be had at $3.25 at New York. On the other side, the mills are reported to be very busy and a rumor, to the effect that Germany has placed some large war orders, is current.

REINFORCING MATERIALS

Bars, Concrete Reinforcing—Inquiries are frequent, but only a small part of these has been turned into actual orders. The prospects are excellent and it would not be surprising to some if bars were scarce later in the year. The price is steady at 1.20c., Pittsburgh.

	Cents per Pound		
Size	Mill Shipments Pittsburgh	*Warehouse Pittsburgh	Delivered from *Warehouse New York
¾-in. and larger	1.20	1.55	2.00 to 2.05
⅝-in.	1.25	1.70	2.05 to 2.10
½-in.	1.40	1.85	2.20 to 2.25
⅜-in.	1.50	1.95	2.30 to 2.35
¼-in.	1.80	2.25	2.65 to 2.70

*Bars from warehouse are cut to desired length without extra charge.

Triangle Mesh—Prices continue steady and there is a fair inquiry:

PRICE PER 100 SQ.FT.

		Plain Material		Galvanized	
Style No.	Cross Sec. Area per Ft. Width	Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.	Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.
†4	0.102	$1.00	$1.23	$1.12	$1.34
5	0.077	0.80	0.97	0.89	1.00
6	0.058	0.63	0.77	0.71	0.84
†7	0.041	0.49	0.60	0.55	0.66
†23	0.170	1.69	2.05	1.88	2.24
24	0.142	1.46	1.77	1.62	1.93
25	0.124	1.29	1.57	1.43	1.71
†26	0.110	1.17	1.42	1.30	1.55
†27	0.085	0.96	1.17	1.07	1.28
28	0.066	0.80	0.97	0.89	1.06
29	0.049	0.66	0.80	0.73	0.87
31	0.261	2.49	3.02	2.76	3.29
32	0.225	2.16	2.62	2.40	2.86
33	0.196	1.93	2.34	2.14	2.55
34	0.146	1.48	1.80	1.64	1.96
35	0.109	1.117	1.42	1.30	1.55
36	0.075	0.87	1.05	0.97	1.15
38	0.380	3.55	4.30	3.93	4.68
†39	0.325	3.05	3.70	3.38	4.03
40	0.283	2.68	3.25	2.97	3.54
41	0.208	2.05	2.48	2.27	2.70
42	0.151	1.55	1.88	1.72	2.05
†43	0.101	1.10	1.34	1.23	1.46

†This material is made in regular widths of 18, 22, 26, 30, 34, 42, 46, 50, 54 and 58 in. Standard lengths in rolls are 150, 250, 300 and 600 ft.

Copper—The continued demand by the belligerent countries for war materials has maintained the market in copper, and on the whole the position of copper remains strong. During the past month there have been occasional declines in the prevailing high prices but they have been of a temporary nature and quickly recovered. Transactions have been heavy and production has increased. Surplus stocks moreover have vanished—indicating larger demand than supply. Speculation has entered too, to such an extent that prices have been affected mostly in favor of advances. Electrolytic has sold during the month as high as 19c. although among the trade it is generally understood that orders at that price have not been numerous. The prevailing prices at the close of the month was at 18½c. for electrolytic and 22c. for ordinary grades of Lake and 23c. for special brands. More or less irregularity prevailed at London which was reflected in the local market toward the end of the month. During the first quarter of this year imports amounted to 35,000 tons against 41,700 last year, for the same period. During April imports at Atlantic ports have been 3725 tons of copper, 1515 tons of Matte and 5925 tons of ore. Exports during April amounted to 15,473 tons, 4431 being exported during the last week. Prices are expected to be well maintained during the life of the war as the market absorbs production as fast as it can be increased. Moreover German interests have bought copper for shipment immediately after the end of the war.

Tin—The arrival of several large cargoes of tin during the past two weeks has relieved the stringency that existed a month ago in the tin trade. Prices have declined appreciably and dealers are able to fulfill contracts without fear of a shortage of stocks. April arrivals at ports in the United States were 4310 tons and deliveries into consumption were reported at 3200 tons of which 2100 tons were delivered from Atlantic ports and 1100 tons from Pacific ports. Stocks in warehouse and landing April 30 were 3041 tons. Cargoes reported afloat for the United States ports amounted to 2200 tons. Spot tin was held at 39½c. in the open market, with futures quoted at lower prices July being sold at 35½ and August at 35c. The decline since the first of April amounted to about 9c.

Lead—Prices for lead have remained steady with a fair demand. Good merchantable brands are quoted on call New York spot, 4.20c.; East St. Louis, 4.15c., in lots of not less than 50,000 lb.

Spelter—The market during the past month has been erratic with a marked tendency upward although it was more or less nominal. Transactions were not large but shipments abroad were responsible for some reduction in stocks. Spot was quoted at New York at 14½c. and at East St. Louis 14c. These prices are about 7c. per lb. higher than one year ago.

Old Metals—Selling prices of old metals are as follows:

	Cents per Lb.
Copper, heavy and crucible	16.00 to 16.50
Copper, heavy and wire	15.25 to 15.50
Copper, light and bottoms	13.25 to 13.50
Heavy machine composition	12.50 to 13.00
Brass, heavy	10.25 to 10.50
Brass, light	8.00 to 8.25
Clean brass turnings	10.00 to 10.25
Composition turnings	10.75 to 11.00
Lead, heavy	3.80
Lead, tea	3.50
Zinc, scrap	8.00

Miscellaneous Metals—The prices of various metals from jobbers' warehouse, New York, are as follows:

	Per Pound
Brass tubes, iron-pipe sizes:	
½ in.	25.00
¾ in. to 3 in.	24.00
3½ in	24.00
4 in.	25.00
Brass rods	20.25
Brass sheets	20.75
Solder	29.00
Copper tubes	25.00
Zinc sheets	15.00 to 15.25
Copper sheets	23.00
Pig tin (five-ton lots, cash)	45.00
Bismuth	$3.75 to $4.00

CLAY PRODUCTS

Sewer Pipe—Indications of a general improvement in the market have been visible. Inquiries resulting in fair sized orders come from the arrival of increased activities in the construction field. On 3-in. to 24-in. sizes, the discount has slightly increased, being 80% off list; on other sizes the discounts remain unchanged as follows: 27 and 30 in., 70%; 30 and 36 in., 65%. At these discounts, prices are as follows:

PRICE OF SEWER PIPE PER FOOT

Size		Size	
3-in.	$0.05	18-in.	$0.33
4-in.	0.05	20-in.	0.45
5-in.	0.08	22-in.	0.60
6-in.	0.08	24-in.	0.65
8-in.	0.11	27-in.	1.35
10-in.	0.16	30-in.	1.65
12-in.	0.20	33-in.	2.20
15-in.	0.27	36-in.	2.45

Flue Lining—Only a slight improvement has been noticed during the past month, and discounts remain unchanged at 80% off list. At this rate prices are as follows:

FLUE LINING PRICE PER FOOT

Size	Weight in Lb.	Price per Ft.	Size	Weight in Lb.	Price per Ft.
4½x8½-in	14	$0.07	8½x18-in	45	$0.18
4½x13-in	20	0.09	13x13-in	45	0.17
7½x7½-in	15	0.08	13x18-in	57	0.24
8½x8½-in	18	0.09	18x18-in	75	0.40
8½x13-in	28	0.13			

MISCELLANEOUS

Railway Ties—Business is reported as being very quiet. The railroads refuse to place any orders at present, the general tendency being to reserve funds. First class standard ties, 7x9 in. by 8 ft. 6 in., have sold at 73c.; 6x8 in. by 8 ft. are quoted at 60c. These prices are f.o.b. New York.

Lumber—Wholesalers of lumber have slightly more confidence in the situation than three months ago, but the trade is undeniably dull. Hemlock shows a little improvement. On the Pacific Coast things are extremely dull, and not as much business is being booked for shipment through the Panama Canal as was expected. North Carolina pine shows some improvement, and in long-leaf yellow pine there is real betterment in the demand. Eastern spruce shows a little more activity, though prices continue low, 2x4-in. in 18- and 20-ft. lengths selling at $26; merchantable yellow pine from 8- to 12-in. at $25, while 14- and 16-in. sells at $32. Yellow pine is very dull. Mixed carloads of hemlock, New York, sell at $19.50 to $20.

STEADY INCREASE IN EASTERN BUILDING OPERATIONS

Continuing the gain of the previous months, 17 cities in the Eastern States show a gain of 23% in the estimated cost of operations from plans filed in April compared with the same month last year. In the same cities in the first four months of the year the gain was about 14%. In the South the ill-effects of low-priced cotton are wearing off, for the loss in seven cities in April was 17% and 42%. At this rate the return should soon be far more satisfactory.

Excellent returns from a few cities in the Middle West fail to bring the total for 14 cities up to that of a year ago. The loss amounted to 9% for the first four months of the year. The loss in these cities was 14% or $4,300,000.

Building returns from about 30 cities, which have not as yet been received, will be published in the next issue.

EASTERN STATES

	Month of April		First Four Months of Year	
	1915	1914	1915	1914
Bridgeport, Conn.	$1,493,413	$233,844	$2,311,149	$1,200,882
Buffalo, N. Y.	1,190,000	1,280,000	2,708,000	2,871,000
Elizabeth, N. J.	141,575	193,774	359,581	576,480
Hartford, Conn.	582,602	447,143	1,609,804	1,284,540
Hoboken, N. J.	57,600	105,273	431,790	359,122
Jersey City, N. J.	694,000	262,171	1,663,870	1,152,716
Newark, N. J.	949,846	754,142	2,888,337	2,676,529
New Bedford, Mass.	437,520	392,150	1,193,782	1,336,449
New Haven, Conn.	465,320	249,485	2,097,800	1,230,939
New York, N. Y.				
Bronx	2,917,300	1,795,975	10,089,475	5,947,130
Brooklyn	4,808,365	4,890,150	11,636,665	13,849,400
Manhattan	5,834,740	4,371,000	22,781,765	15,817,490
Philadelphia, Penn.	3,449,900	3,075,905	12,323,700	11,297,825
Pittsburgh, Penn.	974,283	1,158,225	2,055,385	5,298,446
Reading, Penn.	111,375	87,200	383,900	768,975
Rochester, N. Y.	1,159,257	1,156,109	2,786,581	2,658,416
Scranton, Penn.	118,952	157,383	316,696	372,845
Springfield, Mass.	365,475	450,460	1,884,833	1,404,713
Utica, N. Y.	573,365	277,005	729,795	377,390
Totals	$26,324,888	$21,337,394	$80,252,908	$70,480,287

CENTRAL STATES

	Month of April		First Four Months of Year	
	1915	1914	1915	1914
Canton, Ohio	$217,520	$107,100	$477,495	$292,120
Cincinnati, Ohio	1,317,485	964,425	2,624,604	2,725,660
Des Moines, Iowa	225,223	181,178	461,983	621,628
Grand Rapids, Mich.	298,394	135,934	743,195	1,798,522
Indianapolis, Ind.	776,511	1,036,716	2,240,517	2,594,380
Kansas City, Kan.	147,560	113,995	403,685	276,121
Kansas City, Mo.	1,125,170	735,665	3,257,975	4,190,260
Milwaukee, Wis.	1,173,693	1,353,040	2,729,319	2,969,204
Oak Park, Ill.	219,560	347,660	744,680	771,615
Omaha, Neb.	389,420	593,035	1,171,455	1,315,815
St. Louis, Mo.	986,719	1,734,412	4,051,332	4,946,651
St. Paul, Minn.	829,914	1,204,759	3,148,850	4,434,224
Toledo, Ohio	959,042	772,144	2,714,204	2,170,366
Youngstown, Ohio	219,505	470,035	579,010	773,437
Totals	$8,885,716	$9,750,098	$25,348,304	$29,980,003

SOUTHERN STATES

	Month of April		First Four Months of Year	
	1915	1914	1915	1914
Chattanooga, Tenn.	$44,295	$219,490	$147,412	$494,995
Ft. Worth, Tex.	81,495	214,050	343,755	829,648
Memphis, Tenn.	438,355	420,080	987,828	1,427,225
Norfolk, Va.	163,218	312,630	636,506	977,075
Richmond, Va.	370,114	557,131	1,073,964	1,557,250
Tampa, Fla.	90,440	96,290	289,690	445,235
Washington, D. C.	1,029,020	851,309	3,105,007	3,651,088
Totals	$2,216,937	$2,670,980	$6,584,162	$9,382,516

RAILWAYS

New Jersey—Philadelphia & Reading Ry.—In accordance with a decision of the Board of Public Utility Commissioners, this company is preparing plans for the construction of a tunnel at Bryn Mawr Ave., Trenton, N. J. Estimated cost, $30,000. C. Dillenbeck, Philadelphia, Penn., is Ch. Engr.

Pennsylvania—Western Maryland Ry.—This company has arranged for the use of the tracks of two lines of the Baltimore & Ohio R.R., one from Rockwood, Penn., for about 20 miles into Somerset County and the other from Connellsville, Penn., to Fairmont, W. Va. In each case the company will construct several spurs to coal mines. H. R. Pratt, Baltimore, Md., is Ch. Engr.

Virginia—Mt. Airy & Eastern Ry. of Alexandria—This company has been incorporated to construct a 30-mile extension in Patrick County of the line from Mt. Airy, N. C., to Kibler, Va. Joseph C. Sheehy, Washington, D. C., is Pres.

Virginia—Richmond & Eastern Ry.—This company has been incorporated to construct a railway from Richmond to Ft. Lee, about five miles. The incorporators are: John C. Robertson, J. Taylor Robertson, K. T. Crawley, Haskins, Hobson and C. B. Anderson, all of Richmond.

West Virginia—Kanawha, Glen Jean & Eastern R.R.—Plans are being considered by this company for the construction of a two-mile extension to its line from Glen Jean, W. Va. Thomas Nichol, Glen Jean, is Gen. Supt. and Ch. Engr.

Georgia—Central of Georgia Ry.—This company plans to start work soon on the extension of its line from Rossville to Alton Park, Ga. C. K. Lawrence, Savannah, is Ch. Engr.

Georgia—Midland Ry.—This company is being organized for the purpose of constructing a railway from Savannah to Milledgeville, Ga., about 150 miles. The incorporators are W. M. Exley, J. D. Johnson, W. H. Webb, L. M. Mikel, O. D. Kessler, K. I. Helmey, C. M. Leitner and C. A. Johnson, all of Springfield, Ga.

Alabama—Alabama, Tennessee & Northern Ry.—Plans are being considered by this company for the extension of its line from Reform, Ala., to a connection with the Illinois Central R.R., about 65 miles. William Toxey, Mobile, Ala., is Ch. Engr.

Tennessee—Chesapeake & Ohio Ry.—Plans have been prepared by this company for the construction of a railway from Greenville to Kingsport, Tenn. F. I. Cabell, Richmond, Va., is Ch. Engr.

Kentucky—Louisville & Nashville R.R.—The construction of a 23-mile extension from McRoberts to Elk Horn, Ky., is contemplated by this company. W. H. Courtenay, Louisville, Ky., is Ch. Engr.

Ohio—Baltimore & Ohio R.R. Co.—This company has purchased 920 ft. of frontage along its right of way in Cincinnati, Ohio, for the purpose of establishing yards and trackage. A. M. Kinsman, Cincinnati, is Engr. Const.

North Dakota—Great Northern Ry.—According to press reports this company will soon start work on the construction of its proposed line from New Rockford, N. D. A. H. Hoagland, St. Paul, Minn., is Ch. Engr.

Wyoming—Northern Wyoming R.R.—This company has been incorporated to construct a railway to connect Sheridan, Big Horn and Beaver Hills. The incorporators are: George L. Forsyth, Olaf Nelson, D. P. B. Marshell, H. Batchelor and E. Forsyth. Noted Apr. 1.

Washington—J. E. Morrison, Bellingham, Wash., has appeared before the Chamber of Commerce of that city, asking that the sum of $250,000 be pledged to cover right-of-way expense in connection with the proposed transcontinental line from Hudson Bay to Puget Sound.

Oregon—The city of Roseburg will hold a special election on June 3 at which the question of a $300,000 bond issue will be submitted to the voters, the proceeds to be used in constructing a railroad from the city to the boundary of the national forest, a distance of 30 miles. Noted Apr. 29.

California—Atchison, Topeka & Santa Fé Ry.—An expenditure of $75,000 is contemplated by this company for track improvement near Corona, Calif. F. M. Bisbee, Amarillo, Tex., is Ch. Engr. Western Lines.

✚British Columbia—Canadian Pacific Ry.—Foley Bros., Vancouver, general contractor for the new tunnel being built near Glacier, B. C., for this company, has awarded to the BATES & ROGERS CONSTRUCTION CO., Vancouver, the contract for lining the tunnel, at an approximate cost of $300,000. The tunnel will be five miles long, and will cost approximately $5,000,000.

ELECTRIC RAILWAYS

Methuen, Mass.—The Bay State St. Ry. Co. has applied to the City Council for a franchise to extend and improve its lines in Methuen. R. S. Goff, Boston, is Vice-Pres. and Gen. Mgr.

Mayville, N. Y.—The Columbus Mayville Ry. Co. has applied to the Council for a franchise to construct an electric railway in Mayville. C. P. Northrup, Corry, Penn., is Pres.

White Plains, N. Y.—According to press reports the Westchester & Northern Ry. Co. will soon start work on the construction of an electric railway from the terminus of the New York, Westchester & Boston R.R. to Danbury, Conn.

Grove City, Penn.—The Butler & Grove City Ry. Co. plans to start work soon on the construction of an electric railway from Grove City to Slippery Rock. James A. Jolliffe, Grove City, is Mgr. Noted June 25.

Hershey, Penn.—Plans are being made by the Hershey Transit Co. to start work about May 15 on the construction of an extension from Hershey to Jonestown. J B. Lightheiser, Hershey, is Gen. Mgr.

Petersburg, Va.—The Petersburg & Appomattox Ry. Co., recently granted a franchise to construct an electric railway from Petersburg to City Point, about 10 miles, plans to start work within two months. W. W. La Prade is Ch. Engr. Noted Apr. 8 and 29.

✚Jacksonville, Fla.—The Commissioners of the Port have awarded the contract to A. J. MILLS, Jacksonville, to construct a railway to connect the municipal docks Noted Dec. 3.

Cleveland, Ohio—The Cleveland Electric Ry. Co. is preparing to extend its Payne Ave. line. George L. Radcliffe, Cleveland, is Gen. Mgr. Noted Apr. 8.

Battle Creek, Mich.—The Battle Creek, Coldwater & Southern Ry. Co. will soon award contracts for the construction of an electric railway to connect Battle Creek, Coldwater and Girard. T. A. Hilton, Coldwater, is Pres.

Kankakee, Ill.—The Kankakee-LaFayette Electric Ry. Co. is preparing to start work soon on the construction of an electric railway from Kankakee to LaFayette. O. L. Brown is Gen. Mgr. Noted Feb. 4.

La Salle, Ill.—The La Salle Ry. Co. is making surveys for the construction of an electric railway from Oglesby and La Salle. B. M. McDonald, Chicago, is Secy.

Halstead, Kan.—The Arkansas Valley Interurban Ry. Co plans to start work soon on the extension of its line from Halstead to Hutchinson, about 22 miles. Charles D. Bell, Wichita, is Supt. Noted Feb. 11 and Apr. 29.

Columbus, Ark.—Preliminary arrangements are being made by Rufus S. Stout, Pine Bluff, for the construction of an electric railway from Columbus to Washington, Ark.

Ft. Smith, Ark.—The Ft. Smith Light & Traction Co. contemplates an expenditure of $60,000 for the reconstruction of several of its railway lines. R. L. Orton, Ft. Smith, is Ch. Engr.

Pocatello, Utah—The Council has granted a franchise to J. R. Munn, Salt Lake City, for the construction of an electric railway in Pocatello.

Phoenix, Ariz.—The Phoenix Ry. Co. is considering plans for the construction of a loop to connect Monroe, Fourth, Washington, Roosevelt and First St. Samuel H. Mitchell, Phoenix, is Gen. Mgr. and Pur. Agt.

Linnton, Ore.—Preliminary arrangements are being made by O. M. Clark, Richard Shepard and J. B. Holbrook for the construction of an electric railway in Linnton. This is part of a proposed line to connect Linnton and Portland.

Salem, Ore.—The Willamette Valley Southern Ry. Co. contemplates the construction of an extension from Mt. Angel to Salem. F. W. Hild, Portland, is Gen. Mgr.

Niagara Falls, Ont.—The Department of Public Works is considering plans for the construction of a sight-seeing electric railway across Whirlpool Rapids.

Toronto, Ont.—The Toronto Ry. Co. is preparing plans for the construction of an electric railway on College St. from Bathurst St., westward. F. G. Clark, Toronto, is Ch. Engr.

Brandon, Man.—The Brandon Municipal Ry. Co. will lay new tracks on 13th, 14th and College St. in Brandon. R. E. Speakman is Engr.

Transcona, Man.—W. J. Christie, Union Bank Bldg., Winnipeg, is interested in the construction of an electric railway from Oxford and Regent St. to the western limits of the town, to connect with the Winnipeg St. Ry.

LIGHT, HEAT AND POWER

Carmel, Maine—It is reported that the Black Stream Electric Co., recently organized, is making plans to establish an electric plant to supply energy to the towns of Carmel, Hermon, Levant, and possibly Etna, all in Penobscot County. It will cost about $25,000, and will probably be located on the Sowadabscook stream, about one mile from Carmel.

Manchester, N. H.—The Manchester Traction, Light & Power Co. has applied to the State Public Service Commission for authority to issue $1,000,000 in bonds, of which a part of the proceeds will be used to make additions and improvements to its properties during the year. J. Brodie Smith, Manchester, is Vice-Pres. and Gen. Mgr.

New Haven, Conn.—It is reported that the Winchester Repeating Arms Co. plans to build a $22,000 gas plant, a $15,000 tank storage building, a central heating plant to cost $48,000 and a $30,000 scrap shed.

New Haven, Conn.—The H. B. Ives Co., Artizan St., is having plans prepared for a one-story, brick and steel, 24x44-ft. boiler house, and a 125-ft. brick stack. R. W. Foote is Arch.

✚New York, N. Y.—(Borough of Bronx)—Bids were received Apr. 21 by the Department of Education for electrical equipment in the addition to Public School 12, Benson and Frisby Ave., Westchester, Borough of the Bronx, from: New York Construction Co., $4444; T. FREDERICK JACKSON, 99 John St., New York, $4154 (awarded contract); Jandous Electric Co., $4311; Commercial Construction Co., $4473.

Ebensburg, Penn.—The Ebensburg Light, Heat & Power Co. is preparing to install one 800-hp. Blake & Knowles open feed-water heater and one Worthington duplex feed pump. E. F. Craver is Gen. Mgr. and Cont. Agt.

Pottsville, Penn.—The Eastern Pennsylvania Light, Heat & Power Co. contemplates increasing the output of its plant at Palo Alto, a suburb of Pottsville, by 2000 hp. The estimated cost of the work is $200,000. W. B. Rockwell, Pottsville, is Mgr.

Shippensburg, Penn.—The Shippensburg Gas & Electric Co. is installing a hydro-electric plant, which will be capable of generating 450 kw. C. W. Harman is Mgr. and Supt.

St. Michaels, Md.—The Town Commissioners have granted a 20-year franchise to the Talbot Mfg. Co., St. Michaels, to supply the town with electricity for lighting and power purposes. The company has a private electrical system for its packing plant, and will install additional boilers and generators.

Clifton Forge, Va.—It is reported that the Virginia Western Electric Co. will build, within the next few months, a hydro-electric plant and five new substations. It will also construct 42 miles of 44,000-volt, three-phase transmission line, and purchase water-wheel governors, generators, etc. A. C. Ford is Mgr. and Supt.

Lynchburg, Va.—Press reports state that the Lynchburg Traction & Light Co. has appropriated $85,000 for rebuilding its transmission lines. It also contemplates enlarging the Blackwater St. station and the gas plant. J. W. Hancock is Gen. Mgr.

✚Branchland, W. Va.—It is reported that the Huntington Development & Gas Co. has awarded the contract for the construction of a gas compressor plant near Branchland to the MILLER SUPPLY CO. The estimated cost is $100,000.

Parkersburg, W. Va.—The Parkersburg, Marietta & Interurban R.R. Co. has chosen the site for the construction of its new generating station in Parkersburg to replace the present power house. The building will be 135x150 ft., and the complete plant is estimated to cost about $500,000. Sanderson & Porter, 52 William St., New York, N. Y., is Engr.-in-Charge. Noted Feb. 25.

Baton Rouge, La.—Press reports state that the Baton Rouge Electric Co. will build a new power plant to cost about $200,000. Donald Stewart, Baton Rouge, is Mgr.

New Orleans, La.—It is reported that the New Orleans Ry. & Light Co. will spend about $125,000 in enlarging its power plant on Market St.

Paducah, Ky.—The Kentucky-Southwestern Electric Ry., Light & Power Co. will build a new power house in connection with its traction line from Paducah to Murray. H. C. Rhodes, Paducah, is Pres. F. M. Smith is Gen. Mgr.

✚Cleveland, Ohio—The Diebolt Brewing Co., Pittsburg Ave., has awarded the contract for the construction of a new boiler house to the GEORGE B. McMILLAN CO., 1794 East 55th St., Cleveland. It will cost about $15,000. Louis Lehle, 64 West Randolph St., Chicago, Ill., is Arch.

Hilliards, Ohio—The Hilliards Light & Power Co., recently organized with a capital stock of $10,000, will install a plant to furnish the town with electricity. LeRoy Bobyns, T. C. Latham and associates are interested.

Lisbon, Ohio—The Ohio Gas & Electric Co., lately organized, plans to install an electric-light plant in Lisbon. Service is now furnished to the town by the New Lisbon Gas Co., which purchases energy from the Youngstown & Ohio River R.R. Co. Joseph S. Grayden is interested in the Ohio Gas & Electric Co.

Oxford, Ohio—(Official)—Bids will be received until noon, May 29, by the Board of Trustees of Miami University for alterations and additions to the power plant of the University. The work includes boiler- and engine-room extensions to power building, boiler, feed-water heater, vacuum heating pumps, boiler-feed pumps, power equipment changes and additions. W. L. Tobey, Hamilton, Ohio, is Chn. of Bldg. Com. of the Bd. of Trustees of Miami University. Walter G. Franz, Cincinnati, is Consult. Engr. Noted Apr. 22.

Painesville, Ohio—The City Council has rejected the terms of the Cleveland, Painesville & Eastern R.R. Co., Willoughby, to supply electricity to the city, and has authorized an issue of $35,000 in bonds, the proceeds of which will be used to make improvements and buy new equipment for the municipal electric-light plant.

✚Toledo, Ohio—The Board of Education has awarded contracts in connection with the construction of the new Nebraska School as follows: Electrical work, R. H. WINTERS CO., Toledo, $2197; plumbing, LARSEN & WOOD, Toledo, $15,003; heating and ventilating, ROBERT RAITZ & CO., Toledo, $19,775; temperature regulation, JOHNSON SERVICE CO., Milwaukee, Wis., $3540.

Trenton, Ohio—(Official)—Bids will be received until noon, May 20, by J. H. Kerr, Village Clk., for lighting the streets, alleys and public places of the village for a period of 10 years.

Ann Arbor, Mich.—The City Engineer has submitted tentative plans to the City Council for the installation of a municipal electric plant for lighting the streets and public buildings of the city. The estimated cost is $55,585. Manly Osgood is City Engr.

Ute, Iowa—It is reported that a company is being organized to construct and operate an electric-lighting system in Ute. The estimated cost is $10,000.

Stillwater, Minn.—The Lighting Committee of the City Council has engaged Earle D. Jackson, Capital Bank Bldg., St. Paul, to prepare plans for a municipal electric-light plant, including an ornamental lighting system, or a lighting system without ornamental lamps. Noted Dec. 24.

Hays, Kan.—The City Council is considering the installation of a municipal electric-light plant. The estimated cost is $27,000.

Brock, Neb.—The citizens have voted a bond issue for the purpose of constructing a transmission line from Auburn, 11 miles distant, to supply the town with electricity from the plant of the Auburn Mutual Lighting & Power Co.

Victoria, Tex.—At an election held Apr. 26, the citizens voted in favor of issuing $40,000 in bonds, the proceeds of which will be used for the installation of a municipal electric-light plant. Noted Apr. 1.

Ada, Okla.—The Ada Oil & Gas Co. has applied to the City Council for a franchise to install a natural gas distributing system in the town.

Duchesne, Utah—An electric-light plant to cost about $10,000 will be installed soon in Duchesne. M. Pope, R. W. Kroupa, Duchesne, and John Glenn, Vernal, Utah, are interested.

Elsinore, Calif.—It is reported that D. W. Campbell is preparing to install a gas plant in Elsinore.

✚Los Angeles, Calif.—The Los Angeles Gas & Electric Corporation has awarded a contract for two boilers to the BABCOCK & WILCOX CO., 85 Liberty St., New York, N. Y., at $15,978.

BRIDGES

Lawrence, Mass.—(Official)—Bids will be received until 9:30 a.m., May 10, by the Commissioners of Essex County, Salem, for rebuilding the bridge over the Shawsheen River at Merrimac St., Lawrence. It will be a reinforced-concrete structure, 50 ft. long and 60 ft. wide. Moody Kimball, Salem, is Chn. of Comrs.

✚Lee, Mass.—The Town Council has awarded the contract for the construction of a concrete bridge on Pleasant St. to M. L. CARMARCO, Lee, at approximately $10,000.

Lowell, Mass.—(Official)—We are advised by Stephen Kearney, City Engr., that the new bridge at Pawtucket Falls will be built entirely by city forces. The estimated cost is $80,000, exclusive of land damages. Noted Apr. 29.

Woonsocket, R. I.—The City Council has appropriated $60,000 for building two concrete bridges on Hamlet Ave., and straightening the approaches to them. The Council has also appropriated $20,000 for the construction of a new bridge at Fairmount St. F. A. Mills is City Engr. Noted Dec. 24.

Albany, N. Y.—The State Assembly has passed bills appropriating $100,000 for the construction of a bridge over the Mohawk River between Albany and Saratoga Counties at Dunsbach Ferry; $50,000 for a bridge at Minetto over the Oswego River and the Barge Canal, and $18,000 for a bridge at Stillwater over Twitchell Creek.

Jersey City, N. J.—It is reported that the Central R.R. of New Jersey contemplates building a new bridge over Jackson Ave., Jersey City. J. J. Yates, New York, N. Y., is Bridge Engr.

✚Gettysburg, Penn.—(Official) — The Commissioners of Adams and York Counties have awarded the contract for the construction of a reinforced-concrete arch over Beaver Creek between Adams and York Counties, to A. G. & M. WAGMAN, Dallastown, Penn. Seven other bids were received. Noted Apr. 8.

★✚Philadelphia, Penn.—Bids were received Apr. 29 by the Department of Public Works for the construction of a reinforced-concrete arch, 60 ft. long and 30 ft. wide, on the line of 58th St. over the Philadelphia & Baltimore Central R.R., (A) lump sum, (B) aggregate bid including extra items, from: M. & J. B. McHUGH, (A) $11,900, (B) $12,235 (awarded contract); Cantrell Construction Co., (A) $11,881; (B) $12,506; Charles P. Bower, (A) $14,300, (B) $14,713; William H. Johnson, Jr., (A) $14,495, (B) $14,797; T. F. Reilly, (A) $14,500, (B) $14,839; F. J. Boas, (A) $14,700, (B) $15,030; Carl R. Camp, (A) $15,360, (B) $15,754; Richard Walsh & Sons, Inc., (A) $15,695, (B) $15,979; Brann & Stuart Co., (A) $15,750, (B) $16,190; Pugh & Hubbard Co., (A) $16,549; (B) $17,020; Peoples Bros., Inc., (A) $16,774, (B) $17,214; Brown King Construction Co., (A) $16,948, (B) $17,339. Noted Apr. 22.

Reading, Penn.—(Official)—Bids will be received until 10 a.m., May 14, by D. K. Hoch, Controller of Berks County, for the construction of a reinforced-concrete bridge over the Schuylkill River between the Borough of West Leesport and Ontelaunee Township, Berks County. Bids will also be received at the same time for furnishing from 1800 to 2500 bbl. of portland cement for the Leesport Bridge. Noted Dec. 17, Jan. 7 and Feb. 25.

✚Reading, Penn.—(Official)—The Commissioners of Berks County have awarded the contract for the construction of the Fleetwood Bridge across Willow Creek in Richmond Township, to the READING CONTRACTING CO., Reading. Noted Apr. 22.

Washington, Penn.—Bids will be received until noon, May 11, by the Board of Commissioners of Washington County for the construction of small bridges and culverts in the county. T. J. Underwood is County Controller. Chaney & Armstrong is Engr.-in-Charge.

York, Penn.—Bids will be received until May 13 by the Commissioners of York County and the County Controller, for the construction of four reinforced-concrete bridges and one stone arch in the county.

Easton, Md.—(Official)—We are advised by Frank W. Seth, County Engr. of Talbot County, that all bids received Apr. 13 for the construction of the Leeds Creek Bridge on the Tunis Mills Rd., were rejected. Noted Apr. 8 and 29.

✚Bedford City, Va.—(Official)—The Commissioners of Bedford County have awarded the contract for the construction of a 209-ft. bridge over Elk Creek to the CAMDEN IRON WORKS, Roanoke, Va. Noted Feb. 4.

✚Durham, N. C.—(Official)—The Board of Commissioners of Durham County has awarded the contract for the construction of four steel bridges with concrete substructures to the CAMDEN IRON WORKS, Roanoke, Va., at $10,904 for the steel, and $5.80 and $5.90 per cu.yd. for the concrete. P. C. Crompton is County Audr. Noted Mar. 25.

Birmingham, Ala.—The Board of City Commissioners has instructed the City Engineer to prepare an ordinance providing for the construction of a reinforced-concrete viaduct over the railway tracks on 21st St. between First Ave. and Ave. A. The structure will be about 1000 ft. long. Julian Kendrick is City. Engr.

Bryan, Ohio—It is reported that the Board of Commissioners of Williams County will shortly advertise for bids for the construction of five steel bridges, ranging from 50 to 144 ft. in length. C. R. Lowe is Clk. of Comrs.

Cambridge, Ohio—(Official)—The Board of Commissioners of Guernsey County has rejected all bids received Apr. 13 for building abutments for the Dewey Ave. Bridge over Wills Creek in the City of Cambridge. The matter will not be considered again before next fall, and possibly not until the spring of 1916. It is possible that the Baltimore & Ohio R.R. Co., in conjunction with the city, will build a viaduct to replace the present bridge at this point. T. C. White is County Audr. Noted Mar. 25.

✚Chillicothe, Ohio—The Board of Commissioners of Ross County has awarded contracts for the construction of a 243-ft. bridge at Frankfort to OATHER M. JUNK, Chillicothe, at $8298 for the substructure, and E. M. SCULLY, Columbus, at $14,995 for the superstructure. The contract for the construction of the Crooked Bridge near Bainbridge was awarded by the Commissioners to the CAPITOL CONSTRUCTION CO., Columbus, at $12,175.

Cleveland, Ohio—Bids will be received until May 19 by the Board of Commissioners of Cuyahoga County for county bridge work, Report No. 3510. W. A. Stinchcomb is County Surv. E. G. Krause is Clk. of Comrs.

✚Coshocton, Ohio—The Board of Commissioners of Coshocton County has awarded contracts for repairing the Miskimen and Fresno Bridges to GEORGE J. BOCK & SON, Coshocton, $3265 and $3510 respectively.

Hamilton, Ohio—It is reported that the low bidder for the construction of a steel bridge at Woodsdale was the Penn Bridge Co., Beaver Falls, Penn., at $19,540 and $18,720 for the superstructure, (alternate plans), and $20,000 and $19,470 for the substructure. The lowest bid for a concrete bridge was that of the Cleary-White Construction Co., Chicago, Ill. Bids were received Apr. 17. Noted July 23, Aug. 13, Dec. 10, 1914; Feb. 25, Mar. 11 and Apr. 1, 1915.

✚Hamilton, Ohio—The Board of County Commissioners has awarded the contract for the construction of the Woodsdale Bridge to the CLEARY-WHITE CONSTRUCTION CO., 17 North La Salle St., Chicago, at $76,289. It will be of concrete, six 100-ft. spans.

Logan, Ohio—(Official)—Bids will be received until 1 p.m., May 14, by the Board of Commissioners of Hocking County for the superstructure of a bridge across Rush Creek in Marion Township. George H. Shaw is Chn. of Comrs.

✚Tiffin, Ohio—(Official)—The Board of Commissioners of Seneca County has awarded contracts for the construction of Bridge No. 230 in Empire Township, and Bridge No. 96 in Bloom Township, to the BURK CONSTRUCTION CO., Newcastle, Ind., at $5586 and $3403, respectively. J. E. Hershberger is County Engr. Noted Apr. 8.

Auburn, Ind.—Plans are being prepared by Charles Wagoner, County Engr. of De Kalb County, for two steel bridges the Farrington Bridge, 60 ft. long, and the Grube Bridge, 12 ft. long. A. W. Madden is County Audr.

Mt. Vernon, Ind.—It is reported that the Commissioners of Posey County will advertise about July 1 for the construction of several steel and concrete bridges. T. J. Johnson is County Surv. J. R. Haines is Audr.

Dixon, Ill.—Press reports state that the Illinois Central R.R. will raze the present bridge over the Rock River at Dixon, and will replace it with a new structure. M. Johnson, Chicago, is Engr. of Bridges and Bldgs.

✚Lincoln, Ill.—The Streets and Alleys Committee of the City Council has awarded the contract for the construction of a reinforced-concrete bridge over Brainerd's Branch on Union St. to H. K. RHOADS at $11,067.

Atlantic, Iowa—The Board of Supervisors of Cass County has passed a resolution of necessity for the construction of eight new bridges and culverts in the county. C. E. Keingel is County Audr.

Council Bluffs, Iowa—(Official)—Bids will be received until 2 p.m., May 7, by the Board of Supervisors of Pottawattamie County for the construction of five steel bridges, ranging from 40 to 100 ft. in length. J. D. Hannan is County Audr.

Council Bluffs, Iowa—The City Council contemplates the construction of a new bridge across Indian Creek. The bridge will be 26 ft. wide, and the estimated cost is $5000. E. E. Spetman is City Engr.

Forest City, Iowa—(Official)—Bids will be received until 11 a.m., May 11, by C. K. Nelson, Audr. of Winnebago County, for the construction of two reinforced-concrete bridges. The first is estimated to cost $3828, and the other $2460. O. N. Gjellefald is Engr.

Idagrove, Iowa—The Board of Supervisors of Ida County will shortly receive bids for the construction of 13 new county bridges. Plans were prepared by the State Highway Commission, Des Moines. Thomas H. MacDonald is State Engr.

✚Manchester, Iowa—(Official)—The Board of Supervisors of Delaware County has awarded the contract for the construction of a number of county bridges to the MARSH ENGINEERING CO., Des Moines, at $8875. Bids were received Apr. 24. C. H. Bunker is County Audr. Noted Apr. 22.

Red Oak, Iowa—Bids will be received until 1 p.m., May 30, by the County Auditor of Montgomery County for the construction of bridges and culverts in the county.

✚Austin, Minn.—(Official)—The Commissioners of Mower County have awarded contracts for the construction of 14 reinforced-concrete bridges as follows: H. F. GARBISH, Austin, $334 for seven bridges; IOWA BRIDGE CO., Des Moines, Iowa, $7099 for five bridges; WILLIAM O'SHEA & SONS, Minneapolis, $2617 for two bridges. O. J. Simmons is County Audr. Noted Apr. 22.

Duluth, Minn.—(Official)—We are advised by D. A. Reed, Mgr. of the Water and Light Dept., that plans are not yet completed for a bridge over Tischer's Creek at First St., and bids have not been advertised. The bridge will be a reinforced-concrete arch of 100 ft., carrying 36-in. water pipes, with sidewalks over them. Noted Apr. 22.

✚Moorhead, Minn.—(Official)—The Board of Commissioners of Clay County received bids Apr. 27 for the construction of State Bridges (A) No. 1633, and (B) No. 1657, from: Great Northern Bridge Co., Minneapolis, (A) $9398, (B) $2880; Elkhart Bridge & Iron Co., Elkhart, Ind., (A) $9520, (B) $2772; Joliet Bridge & Iron Co., Joliet, Ill., (A) $10,200, (B) $2588; ILLINOIS STEEL BRIDGE CO., St. Paul, (A) $8953 (awarded contract), (B) $2725; Continental Bridge Co., Chicago, Ill., (A) $10,500, (B) $2990; Worden-Allen Co., Milwaukee, Wis., (A) $9682, (B) $3344; Wausau Iron Works, Wausau, Wis., (A) $9889, (B) $2519; Fargo Bridge & Iron Co., Fargo, N. D., (A) $9800, (B) $2660; JARDINE & ANDERSON, Fargo, N. D., (A) $9700, (B) $2599 (awarded contract); Dinsmore & Lewis, Hawley, (B) $3090. A. O. Houglum is County Audr. Noted Apr. 15.

Leavenworth, Kan.—Bids will be received until May 11 by Fred Metschan, City Clk., for the construction of two culverts over Three Mile Creek at Second and Third St. Harry A. Perkins is City Engr.

Potter, Kan.—It is reported that the Commissioners of Atchison County, Atchison, will soon advertise for bids for the construction of a reinforced-concrete bridge at Potter. C. M. Voelker, Atchison, is County Clk. R. K. McCrary is County Engr.

Lisbon, N. D.—Bids will be received until noon, May 19, by Charles E. Best, Audr. of Ransom County, for the construction of one 60-ft. bridge and one 80-ft. bridge. Both will have reinforced-concrete floors, abutments and wings.

St. Joseph, Mo.—Bids will be received until 11 a.m., May 10, by the Commissioners of Buchanan County for bridge work and repairs. J. C. Hunt is Clk. of Comrs. R. L. Cargill is County Engr.

✚Rockport, Mo.—The Board of Commissioners of Atchison County has awarded the contract for the construction of three steel bridges to the NEBRASKA CONSTRUCTION CO., Lincoln, Neb., at $4500. One bridge will be 70 ft. long, and the others 90 ft. each. J. A. Krusor is County Highway Engr. Noted Mar. 25.

Canadian, Tex.—The taxpayers of Hemphill County have voted in favor of issuing $75,000 in bonds, for the purpose of building a bridge across the Canadian River at this point.

Houston, Tex.—Bids will be received until 10 a.m., May 10, by H. L. Washburn, Audr. of Harris County, for the construction of the Kuykendahl Rd. Bridge.

✚Pocatello, Idaho—(Official)—The State Highway Department, Boise, has awarded contracts for the construction of seven bridges in Bannock County to the MIDLAND BRIDGE CO., Salt Lake City, Utah, and F. CRANE, Boise, at $3546 and $3966 respectively. Edward S. Smith is State Highway Engr.

Priest River, Idaho—It is reported that the Commissioners of Bonner County, Sandpoint, are having plans prepared for the construction of a bridge across the Pend d'Oreille River at Priest River to replace the present ferry. The estimated cost is $25,000. Clyde J. Chaffins, Sandpoint, is County Surv.

Olympia, Wash.—(Official)—We are advised by W. A. Hoage, City Clk., that the bids received Apr. 19 for the construction of a bridge to replace one recently destroyed, were for a temporary structure only. Noted Apr. 15.

✚Olympia, Wash.—The Board of Commissioners of Thurston County opened bids Apr. 26 for the construction of a bridge over Perry Creek as follows: COAST BRIDGE CO., Portland, Ore., $8400 (awarded contract); Charles G. Huber, Seattle, $8996; Portland Bridge & Iron Works, Portland, Ore., $9980; Weymouth Construction Co., Seattle, $10,200; March & Tweeden, Tacoma, $11,247; F. T. Pierce, Seattle, $11,730; Yelverton & Wolfe, Olympia, $11,917. Noted Mar. 18 and Apr. 15.

Seattle, Wash.—It is reported that the City Council is considering the reconstruction of the West Garfield Bridge at an estimated cost of $20,000. Arthur H. Dimock is City Engr.

Eureka, Calif.—Bids will be received until May 11 by the Board of Supervisors of Humboldt County for the construction of three bridges: One 700-ft. cable suspension bridge to cost about $45,000; a 60-ft. concrete bridge and a cable bridge, costing $9000 each. A. J. Logan is County Surv.

Los Angeles, Calif.—It is reported that the Atchison, Topeak & Santa Fé Ry. has appropriated $85,000 for the construction of two new railway bridges on the Los Angeles Division. F. M. Bisbee, Amarillo, Tex., is Ch. Engr. Western Lines.

Los Angeles, Calif.—It is reported that the Board of Supervisors of Los Angeles County has awarded the contract for the construction of a 60-ft. steel girder bridge over Coyote Creek to the SECURITY CONSTRUCTION CO., Los Angeles, at $6382, and 55c. per ft. for piling.

Meridian, Calif.—It is reported that the bridge at Meridian, owned jointly by Sutter and Colusa Counties and the Northern Electric Co., Chico, will be repaired at an estimated cost of $46,980.

WATER SUPPLY—IRRIGATION

Boston, Mass.—(Official)—Bids will be received until 1:30 p.m., May 10, by the Metropolitan Water and Sewerage Board for laying 6370 ft. of 60-in. c.-i. water mains in Newton. Dexter Brackett is Ch. Engr. of Water-Wks.

✚Boston, Mass.—The contract has been awarded to E. S. BUTTERFIELD & CO., at $3 per box, for furnishing 2600 concrete gate boxes for the water department. Noted Apr. 1.

✚Boston, Mass.—The contract has been awarded by the Metropolitan Water and Sewer Board to JOHN CASHMAN & SONS CO., 247 Atlantic Ave., Boston, at $46,000, for constructing a masonry tower around the steel water tower on Bellevue Hill. Noted Apr. 8 and 22.

Brookline, Mass.—Plans are being prepared by F. F. Forbes, Supt. of Water-Wks., for an 8,000,000-gal. deferritation plant for the water system. The plant will be built by day labor. Noted Dec. 17, Feb. 4 and Apr. 8.

Gardner, Mass.—The reservoir at Gardner will be reconstructed this summer at an estimated cost of $10,000.

✚Newton, Mass.—(Official)—Bids were received Apr. 26 by the Metropolitan Water and Sewerage Board for laying 60-in. water pipes in various streets as follows: ANDREW M. CUSACK, Boston, at $32,369 (awarded contract); James L. Pierce Co., Boston, $32,615; Rowe Contracting Co., Boston, $33,047; Coleman Bros., Boston, $34,787; Bruno & Petitti, Boston, $34,787; John P. Cavanaugh Co., Boston, $36,762; M. Russo & Son Co., Boston, $37,103; Charles A. Kelley, Somerville, $37,522; Hugh Nawn Contracting Co., Boston, $37,960; John T. Shea, Jr., Boston, $38,290, and Moore & Co., Boston, $48,602. Noted Apr. 22.

Shrewsbury, Mass.—Bids were received Apr. 24 by the Water Commissioners for constructing a water system as follows: Hanscom Construction Co., Boston, $70,300; Frederick A. Houdette & Son, Boston, $74,500; Daniel D. Pietro, Boston, $75,000. All bids were above the appropriation. George E. Stone is Town Clk. Noted Feb. 11 and Apr. 23.

Westfield, Mass.—At a recent election the citizens voted against the question of issuing bonds, the proceeds of which was to have been used for the construction of reservoirs and sewers.

Binghamton, N. Y.—Bids will be received until May 26 by the Board of Contract and Supply for constructing standpipes for the water system. Noted Dec. 17.

Herkimer, N. Y.—Surveys are being made by R. E. Horton, Albany, for the construction of a pipe line for water supply for Herkimer. The cost is estimated at about $250,000.

Ilion, N. Y.—Bonds for $81,000 have been voted by the citizens, the proceeds of which will be used for the new water supply. Plans will be submitted to the State Conservation Commission. Noted Dec. 10.

Niagara Falls, N. Y.—According to press reports the city will spend $90,000 for the construction of water mains this year. F. S. Parkhurst is City Engr.

Trumansburg, N. Y.—The construction of a water system is under consideration by the Village Trustees and Business Men's Association.

Belmar, N. J.—The Shark River Water Co. has had plans approved by the State Water Supply Commission for the construction of a dam.

Camden, N. J.—Plans are being prepared for the completion of connections in the new pumping plant and for the construction of an auxiliary pumping station at Morris Station. Bonds for $50,000 have been voted. Noted Apr. 8 and 29.

Collingswood, N. J.—According to press reports an election will soon be held to vote on the question of issuing bonds, the proceeds of which will be used for the purchase and improvement of the water system. Noted Aug. 27.

Perth Amboy, N. J.—Press reports state the plans are being prepared by S. J. Mason, City Engr., for the construction of a new pump house at the Runyon water-works.

Trenton, N. J.—The construction of high-pressure water mains in the Chambersburg district is under consideration by the City Commission. Alvin A. Bugbee is Supt. of Water-Wks.

Allentown, Penn.—Bids will soon be received for two water chlorination plants for the water-works. R. J. Wheeler is Supt. of Water Wks.

Erie, Penn.—(Official)—Bids are being received by the Board of Water Commissioners for increasing the elevation of the high-service standpipe. Chester & Fleming, Pittsburgh, is Engr.

★Philadelphia, Penn.—(Official)—Bids will be received until noon, May 25, in Room 225, City Hall, for laying c.-i. water mains under Contract No 260. About 17,000 ft. of 48-in., 3300 ft. of 30-in. and 21,000 ft. of 24-in. pipe will be required. Noted Mar. 25.

✚Sykesville, Penn.—The contract has been awarded to the CURWENSVILLE CONSTRUCTION CO., Curwensville, at $7739, for constructing a water system. Noted Sept. 24, Nov. 26, Apr. 3 and 29.

Milton, Del.—Plans have been prepared, according to press reports, by Charles E. Collins, Philadelphia, Penn., for the construction of a water system, estimated to cost $20,000. A. E. Jefferson is City Clk.

Salisburg, N. C.—The city contemplates holding an election to vote on the question of issuing $200,000 in bonds, part of which will be used for the extension of the water system.

Tuscaloosa, Ala.—An election will be held May 17 to vote on the question of issuing $16,000 in bonds, the proceeds of which will be used for the extension of the water and sewer systems.

Belzoni, Miss.—Bids will be received until May 18 by the city for the construction of 8000 ft. of 4-in. c.-i. water mains, hydrants and valves. Noted Feb. 4.

✚New Orleans, La.—Press reports state that the contract has been awarded to HAMPTON REYNOLDS, at $43,500, by the Sewerage and Water Board for work at pumping station No. 2 at Louis and Broad St., under Contract No. 72 D.

✚Vivian, La.—The contract has been awarded to the CHICAGO BRIDGE & IRON WORKS, Chicago, Ill., at $22,785, for installing a water system. Noted Dec. 10, Mar. 11 and Apr. 1.

Alliance, Ohio—(Official)—Bids are being received for the construction of a 40,000-gal. steel tank on a tower. Chester & Fleming, Pittsburgh, Penn., is Engr. Noted Mar. 25.

Bluffton, Ohio—(Official)—Bids will be received until May 17 by D. W. Bixler, Clk., Bd. of Pub. Wks., for making improvements to the water system. The W. J. Sherman Co., Toledo, is Engr. Noted Nov. 19 and Mar. 18.

✚Chillicothe, Ohio—Contracts have been awarded by the Board of Public Works to the PITTSBURGH FILTER MFG. CO., Pittsburgh, Penn., at $9034, for mechanical equipment and filter for the coagulating basin and filter plant; F. D. MARTIN CONSTRUCTION CO. Kansas City, at $13,885, for settling basins, and to the THORMAL EFFICIENCY CO., Kansas City, Mo., at $3597, for centrifugal pumps and motors. Noted Jan. 28.

Cleveland, Ohio—Bids will be received until May 20 by the Commissioner of Purchases and Supplies for filter sand and gravel for the filtration plant at the Division pumping station. Charles F. Schultz, 413 Superior Ave., is Water Comr.

Cleveland, Ohio—Bids will be received until noon, May 21, by the Commissioner of Purchases and Supplies, City Hall, for furnishing and laying c.-i. pipe drains at the filtration plant. Charles F. Schultz, 413 Superior Ave., is Water Comr.

✚Cleveland, Ohio—The contract has been awarded to the PITTSBURGH FILTER MFG. CO., Pittsburgh, Penn., at $15,120, for operating tables for the Division St. filtration plant. Noted Mar. 18 and Apr. 8.

✚Cleveland, Ohio—The contract has been awarded to the RENSSELAER VALVE CO., Troy, N. Y., at $41,676, by the Board of Control for furnishing valves.

East Liverpool, Ohio—Bids will be received until noon, May 28, by the city for the purchase of $200,000 in bonds, the proceeds of which will be used for the extension and enlargement of the water system. James A. Kennedy is Audr. Noted Feb. 11 and 18 and Mar. 4.

✚Toledo, Ohio—According to press reports, the contract has been awarded to the A. BENTLEY & SONS CO., Toledo, by the Board of Control for constructing a pumping plant building. Noted Feb. 2, Mar. 4 and 15 and Apr. 22.

Wadsworth, Ohio—(Official)—The W. J. Sherman Co., Toledo, has been retained by the village to make a valuation of the privately owned water and electric-light systems with a view to municipal ownership.

Gary, Ind.—The construction of 9000 ft. of 12-in. c.-i. water mains from Gary to Aetna is under consideration.

✚Grand Rapids, Mich.—The contract has been awarded to McDERMOTT & COOPER, at $5333, by the Board of Public Works for laying water mains in Fourth St.

Aurora, Ill.—Bonds for $75,000 have been voted by the citizens, the proceeds of which will be used constructing an artesian well, and for extending the distributing system. Theodore A. Stinson is Supt. of Water-Wks. Noted Mar. 4.

Wenona, Ill.—See item under "Sewers."

Watertown, Wis.—Bids will be received until 8 p.m., May 11, by William F. Voss, Secy., Bd. of Water Comrs., for laying 2700 ft. of 6-in. and 500 ft. of 4-in. water pipe with specials.

Colo, Iowa—(Official)—Bids will be received until 8 p.m., May 24, by H. E. Ransom, Town Clk., for constructing a water system. The following materials will be required: 11,700 ft. of 4-in. c.-i., 2050 ft. of 6-in and 180 ft. of 8-in. water pipe, 24 hydrants, 12 valves, 50,000-gal. tank on a 100-ft. tower, 10-in. drilled well and pump. The estimated cost is $18,000. M. Cox is Engr. Noted Apr. 1 and 22.

Nevada, Iowa—Bids will be received until May 11 by R. A. Davis, City Clk., for driving an artesian well to a depth of 2000 ft. with a diameter from 8- to 16-in.

Onslow, Iowa—(Official)—Bids will be received until 8 p.m., May 25, by the Town Council for constructing a water system. The estimated cost is $8000.

Orange City, Iowa—Bonds for $10,500 have been voted, the proceeds of which will be used for the purchase of a new water supply tank, extension of the water mains and for moving the water tower.

✚★Winona, Minn.—The contract has been awarded to J. F. McCARTHY, Minneapolis, at $4520, for drilling four artesian wells. Alvord & Burdick, Hartford Bldg., Chicago, Ill., is Engr. Noted Mar. 11.

✚Pratt, Kan.—The contract has been awarded to the CONNOR CONSTRUCTION CO., Montgall St., at $47,262, for constructing a water system and an electric-light system. Noted Feb. 4 and Mar. 19.

Solomon, Kan.—An election will be held as soon as plans have been prepared to vote on the question of issuing bonds for $30,000, the proceeds of which will be used for the construction of a water system. Harper & Stiles, Grand Ave., Temple, Kansas City, Mo., is Engr.

Holbrook, Neb.—The citizens voted against the bond issue, the proceeds of which was to have been used for the installation of water and electric-light systems.

Sterling, Neb.—The citizens contemplate issuing bonds for $15,000, the proceeds of which will be used for the construction of a water system.

Saratoga, Wyo.—An election will be held May 11 to vote on the question of issuing bonds for $45,000, the proceeds of which will be used for the installation of a water system. J. Munz is Clk.

Chouteau, Mont.—Bids will soon be received for the construction of a water system. Noted July 9, 1914, and Mar. 18.

✚Clydepark, Mont.—The contract has been awarded to McLAUGHLIN & O'NEIL, Livingston, at $15,318, by the City Council for the construction of a water system. Noted Oct. 22, Nov. 26 and Mar. 18.

Caruthersville, Mo.—According to press reports bids will be received after May 10 by Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis, for making extensions to the water and sewer systems. The estimated cost is $62,000. Noted Mar. 11.

Lees Summit, Mo.—Revised plans are being prepared by Henrici, Kent & Lowry, Reserve Bank Bldg., Kansas City, Mo., for the construction of a water system. Estimated cost, $30,000.

Poplar Bluff, Mo.—The Poplar Bluff Water Co. will soon be in the market for machinery for the enlargement of its plant. P. R. Andrews is Ch. Engr.

Paragould, Ark.—According to press reports bonds for $25,000 have been sold, the proceeds of which will be used for the improvement of the water system in the Water-Works Improvement District No. 2.

✚Columbus, Tex.—An election will be held June 6 to vote on the question of issuing bonds, the proceeds of which will be used for the improvement of the water system. Noted Apr. 22.

Marfa, Tex.—John A. Pool, Sr., plans to build a dam and an irrigation pumping plant for the irrigation of 1000 acres.

Mineola, Tex.—The Mineola Ice, Light & Water Co. plans to spend $18,000 for the extension of its water mains. C. M. Dozier is Secy.

✚San Antonio, Tex.—The contract for installing a water system at the County Home for Aged has been awarded to the SAN ANTONIO MACHINE & SUPPLY CO., at $5050. Bids were opened Apr. 15. Noted Apr. 8.

Boswell, Okla.—Bids will be received until May 14 by the city for materials for the construction of a water system. James T. George is Engr. Noted Apr. 30, 1914.

Cushing, Okla,—The city contemplates constructing an artificial lake about 12 miles from the city and laying a 12-in. pipe line to the city. The estimated cost is $100,000.

Craig, Colo.—(Official)—We have been advised by E. H. Carr, Town Recdr., that bids will probably be received within 90 days for the construction of a water system. The estimated cost is $35,000. Noted Apr. 8 and 22.

Alamogordo, N. M.—According to press reports, J. A. Gore and L. G. Lilly plan to construct an irrigation system near Alamogordo.

✚Salt Lake City, Utah—(Official)—The contract has been awarded to JAMES STEWART & CO., Salt Lake City, at $70,485, for constructing a rubble concrete dam at Twin Lakes, Big Cottonwood Cañon. Other bidders were, (a) rubble concrete, (b) reinforced concrete: P. J. Moran Contracting Co., Inc., (a) $70,700, (b) $79,997; Samuel Williams, (a) $74,726, (b) $78,108; John Shea, (a) $82,025, (b) $82,935; Ryberg Bros., (a) $86,005, (b) $74,681; Enoch Smith, (a) $96,490, (b) $101,461; Bates & Rogers Construction Co., (a) $98,525, (b) $100,112; Stewart Engineering Corporation, (a) $74,996, and Morrison-Kundson Co., (b) $78,282. Noted Oct. 22, Mar. 18 and Apr. 8.

Glendale, Ariz.—(Official)—Bonds for the construction of a water system have been sold. Work will soon be commenced and will be done by city forces. Harry G. White is Town Clk. Noted Apr. 22.

Olympia, Wash.—In a recent suit brought by Olympia to determine the value of the water system owned by the Washington Public Service Corporation, the valuation was set at $88,500 by the jury. Noted Mar. 11.

Raymond, Wash.—Bonds for $117,000 have been sold, the proceeds of which will be used for the purchase and improvement of the system of the Raymond Water Co. Noted Jan. 28, Mar. 18 and 25.

Seattle, Wash.—Bids were received Apr. 23 by the City Council for constructing a siphon tunnel in Third Ave., W., under Lake Washington Canal, as follows: T. Ryan, Lowman Bldg., $13,266 (low bidder); L. R. Ellis, Seattle, $13,831; John Contracting Co., Seattle, $14,589; Booker, Kiel & Whipple, Seattle, $14,541, and Meacham & Babcock, Seattle, $15,532. Noted Apr. 8.

Eugene, Ore.—W. L. Benham, Eugene, is interested in an irrigation and drainage district covering about 10,000 acres of land between Willamette and McKenzie Rivers. About 20 miles of irrigation and drainage canals will be constructed at an estimated cost of from $500 to $2000 per mile.

✚Eugene, Ore.—The contract for cement work in the new reservoir, recently awarded to H. E. Doering, Eugene, has been forfeited, and the contract reawarded to GUY PYLE, Eugene, at $10,635. Noted Apr. 1 and 22.

Anderson, Calif.—Surveys and estimates for the Anderson-Cottonwood Irrigation District have been approved by the State Engineer. An election will now be held to vote on the question of issuing bonds for the construction of the irrigation system. Noted June 25 and July 30, 1914.

✚★Sacramento, Calif.—The contract has been awarded to the SCHAW-BATCHER CO., Sacramento, at $593,529, by the City Commission for the extension of the water system. Noted Apr. 1.

✚San Bernardino, Calif.—Contracts have been awarded by the Water Commissioners to the WESTERN PIPE & STEEL CO., and the BAKER IRON WORKS at $7918 and $3765, respectively, for 20-in. and 12-in. water mains. Noted Apr. 8.

Willows, Calif.—The Ryan Irrigation Co. has started preliminary work on the construction of an irrigation system in Glenn County to irrigate 25,000 acres. John P. Ryan, Willows, is Engr. and promoter.

Ford, Ont.—The citizens voted in favor of spending $10,000 for laying 8-in. water mains. G. F. Foster is Town Clk.

Toronto, Ont.—The Board of Control will soon receive new bids for the installation of two electrically driven centrifugal pumps for the main pumping station. R. C. Harris is Comr. of Works.

Assiniboia, Sask.—The city contemplates constructing a water system at an estimated cost of $65,000. J. R. Nolan is Secy.-Treas. and Murphy & Underwood, Saskatoon, is Engr.

SEWERS

oston, Mass.—Bids will be received until May 7 by the Department of Public Works for constructing sewers and drains in Kempton and Mission St., Roxbury District. Patrick O'Hearn is Comr., Dept. of Pub. Wks.

✚Boston, Mass.—(Official)—Bids were received Apr. 23 by the Department of Public Works for sewer work in (a) Gustive and Fairview St. and (b) in Peacevale Rd. from Norfolk St. to Dunbar Ave., Dorchester District, as follows: A. E. DADDARIO, (a) $811 (awarded contract), (b) $1957; Louis Balboni, (a) $830, (b) $1512; James J. Conway, (a) $847, (b) $1713; CONCRETE CONSTRUCTION CO., (a) $851, (b) $1453 (awarded contract); Antony Cefalo, (a) $878, (b) $1595; John F. Corrigan, (a) $942; C. J. Jacobs Co., (a) $955, (b) $2084; M. De Sisto, (a) $1029, (b) $2021; Charles Latorella, (a) $1051, (b) $1858; Booth & Daddario, (a) $1107, (b) $2882; John Guarino, (a) $1136, (b) $1802; M. H. Kelley, (a) $1160; (b) $1896; Peter Bompiani & Co., (a) $1338, (b) $4137; Albert C. Berry, (a) $1528; Ralph A. D'Italia, (a) $2202; William L. Bolan, (b) $1774; Anthony Baruffaldi, (b) $1966; John McCourt Co., (b) $2423. Noted Apr. 22.

Boston, Mass.—Bids were received Apr. 20 for sewer work in Hutevale and Wiggin St. and other streets as follows: Frank Drinkwater, $1722; A. E. Daddario, $1787; Louis Balboni, $1798; Antony Cefalo, $1931; Charles Latorella, $2122; John Guarino, $2137; James J. Conway, $2160; William L. Dolan, $2216; Concrete Construction Co., $2224; Daddario & Booth, $2420; V. Grande, $2484; James L. Pierce & Co., $2507; Charles J. Jacobs & Co., $2612; John Landis, $4652.

Newton, Mass.—Bids will be received until 10 a.m., May 14, by George E. Stuart, Street Comr., for the construction of sewers in John St., Beecher Pl., Langley Rd. and in other streets.

Quincy, Mass.—The city has appropriated $25,000 for sewer construction.

South Hadley, Mass.—Bids will be received until 8 p.m., May 11 by the Board of Sewer Commissioners for the construction of 1500 ft. of 6-in. and 1100 ft. of 18-in. vitrified tile sewers. Ellsworth & Howes, Holyoke, is Engr.

Woonsocket, R. I.—The City Council has appropriated $5626 for the construction of sewers in Social St. F. H. Mills is City Engr.

✚Great Neck Station, N. Y.—(Official)—The contract has been awarded to KING BROS. for the construction of 12 miles of 8- to 24-in. vitrified pipe sewers, appurtenances and two pumping stations, c.-i.-force mains and disposal works and sedimentation tanks.

Lake View, N. Y.—The Syracuse Intercepting Sewer Board has purchased a site at Lake View and will construct a sewage purification plant.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Apr. 26 for constructing sewers in various streets of the Borough as follows: M. P. Moran, 86%; Stanhope Contracting Co., 97.75%; J. J. Creem, 105%, 100%; Rosenthal Engineering Co., 104%; P. J. Donlin Contracting Co., 103%, 135%; D. Donegon Co., 91.95%, 94.95%; Ward & Tully, Inc., 98.4%, 103%; Bonaci Contracting Co., 79%, 112.9%; Norton & Gorman, 74.82%, 91%; Paino Bros., 90.99%; Newman & Cary Co., 143%, 132%; Kingsbridge Contracting Co., 109%, 109%; Murphy Bros., 85.44%; L. E. Kelly, 108.3%.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received Apr. 28 by L. H. Pounds, Borough Pres., for constructing a sewer in Wortman Ave. between New Jersey Ave. and Vermont St. as follows: M. P. Moran, 84.61%; T. Lapadula, 103.99%; Stanhope Contracting Co., 102½%; T. A. Pellagrino Construction Co., 81.65%; Parks Contracting Co., 128%; Rosenthal Engineering & Contracting Co., 94%; E. Gelardi Contracting Co., 94.98%; A. A. Dumproff, 112%; L. E. Kelly, 120%; J. J. Creen, 124%; Joseph Jennings, 93.53%; P. J. Donlin Contracting Co., 93%. Noted Apr. 22.

Niagara Falls, N. Y.—The Board of Aldermen has authorized a bond issue of $75,000, the proceeds of which will be used for constructing sewers.

Oneida, N. Y.—Bids will be received until May 7 by D. J. Covell, City Clk., for constructing sewers in Lenox Ave., Williams and Tilden St. J. M. Hutton is City Engr.

✚Oswego, N. Y.—(Official)—Contracts for sewer construction have been awarded to F. J. O'BRIEN, Oswego, $4945; ANGELO FALVO, Oswego, $2852; CHARLES BROWN, Syracuse, $3524. Noted Mar. 18 and Apr. 29.

Syracuse, N. Y.—(Official)—Bids will be received in June by the Board of Contract and Supply for the construction of the Huntley sewer system. W. Thomas Wooley is City Engr. Noted Nov. 20 and Apr. 29.

Newark, N. J.—Bids will be received until 2 p.m., May 11, by the Passaic Valley Sewer Commission, Essex Bldg., Newark, for the construction of the northern portion of Section 19 of the Acquacknonk, Garfield and Passaic branch of the Main Intercepting Sewer.

✚Oaklyn, N. J.—(Official)—Bids were received Apr. 16 by the Borough Council for the construction of (a) sewage-disposal plant, and (b) sewer system as follows: KELLY-McFEELEY CO., Camden, (a) $10,469 (awarded contract), (b) $28,330; M. & T. E. Farrell, West Chester, Penn., (a) $12,375, (b) $27,330; J. E. Brenneman, Philadelphia, Penn., (a) $11,028, (b) $28,939; Cantrell Construction Co., Philadelphia, Penn., (a) $12,350, (b) $28,430; Suburban Engineering Co., New York, N. Y., (a) $11,470, (b) $29,600; Sutton & Corson, Ocean City, N. J., (a) $11,998, (b) $33,369; Averill-Matthews, Newark, N. J., (a) $12,079. Noted Dec. 3, Mar. 11 and Apr. 1.

South Boundbrook, N. J.—The city contemplates the construction of a sewage-disposal plant estimated to cost $25,000

Verona, N. J.—At an election held Apr. 27 the citizens voted to issue $80,000 in bonds, the proceeds of which will be used for the construction of a sewer system. Noted Apr. 1.

Greenville, Penn.—The lowest bid submitted for the construction of a sewage-disposal plant and intercepting sewers was that of Lesher, Roess, & Lesher, Oil City. Chester & Fleming, Union Bank Bldg., Pittsburgh, is Engr.

✚Montgomery, Penn.—The contract for the construction of sewers in Houston Ave. and in Kinsey St. has been awarded to JAMES NUSS.

Scranton, Penn.—The city contemplates the construction of a lateral sewer system in the 15th Ward.

West Chester, Penn.—Bids will be received until May 12 by the Borough Council for the construction of a sewer system. N. R. Rambo is Engr.

✚Baltimore, Md.—(Official)—The contract for the construction of sewers in Section 1 of the Gwynn's Falls Interceptor has been awarded to JAMES FERRY & SONS, at $26,817. Noted Apr. 8 and 29.

Easton, Md.—Bids will be reecived until May 25 by James B. Clark, City Clk., for the construction of sludge and sand filter beds at the sewage-disposal plant and extending the south outfall sewer. Kastenhuber & Anderson is Engr.

Suffolk, Va.—The City Council contemplates issuing $50,000 in bonds, the proceeds of which will be used for the construction of sewers.

Greenville, S. C.—The citizens voted $25,000 in bonds for the construction of a sewer system. Noted Apr. 8.

✚Manning, S. C.—A contract for sewer work has been awarded to WALTON & WAGNER, Atlanta, Ga., at $4377.

✚Macon, Ga.—The contract for the construction of a sewer in West Vineville has been awarded to the DYSARD CONSTRUCTION CO., Atlanta, at $8196. Noted Oct. 8, Mar. 25 and Apr. 15.

Starke, Fla.—An election will be held May 31 to vote on the question of issuing $26,000 in bonds, the proceeds of which will be used for the construction of a sewer system. Noted Dec. 31. The J. B. McCrary Co. is Engr.

✚Birmingham, Ala.—The Board of Commissioners has awarded the contract for the construction of sanitary sewers in East Birmingham to H. N. BOWDRY. The estimated cost is $5519. Noted Apr. 8.

Tuscaloosa, Ala.—An election will be held on May 17 to vote on the question of issuing $16,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

Greenwood, Miss.—(Official)—The city contemplates the construction of storm sewers. Stanley Cobham is City Engr.

Okolona, Miss.—Bids will be received about May 15 by Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis, Mo., for the construction of a sewer system. Estimated cost, $40,000. Noted Jan. 28, Mar. 4 and Apr. 8.

Madisonville, Ky.—The city contemplates the construction of sewers in Seminary, Arch, Sugg, Center and Noel St. and in Broadway, West Side.

Ashtabula, Ohio—Plans have been prepared by L. A. Amsden, City Engr., for the construction of sanitary sewers in Mill and Gem St., Kain Rd. and in Woodman Ave.

Canton, Ohio—Plans have been prepared for the construction of intercepting sewers in the eastern part of the city to relieve the overflowing sanitary conditions. William E. Sarver is City Engr.

✚Cheviot, Ohio—(Cincinnati post office)—(Official)—The contract for the construction of a sewer in Harrison Ave. from Beech St. to Francis Ave. has been awarded to the JOHN B. McLANE & CO., 337 York St., Newport, Ky., $5277. Other bids were: John L. Walker & Co., Hamilton, $6439; John L. Ruebel Construction Co., $6628; Thomas P. Strack, $7003; Welling & Franz, $7057; D. P. Foley, $8653. Bids were opened Apr. 24. Noted Apr. 22. J. A. Stewart is City Engr.

✚Cincinnati, Ohio—(Official)—The contract for the construction of the Ludlow Run trunk sewer has been awarded to the CONNELLY CONSTRUCTION CO., Cincinnati, at $35,704. Noted Apr. 29.

Cincinnati, Ohio—Bids will be received until noon, May 11, by Philip Fosdick, Dir. of Pub. Ser., for constructing sewers in Manns and Latham Ave. and various other streets.

Cincinnati, Ohio—Bids will be received until noon, May 14, by Philip Fosdick, Dir. of Pub. Ser., for the construction of main and lateral sewers and drains in Donnell St., Michell, North Edgewood, East Epsworth and Orient Ave.

Cincinnati, Ohio—Bids will be received until noon, May 11, by Philip Fosdick, Dir. of Pub. Ser., for improving the sewers in Daniels St. from Alice to Bishop St.

Cincinnati, Ohio—The city contemplates the construction of a sewer intercepter in Muddy Creek and the construction of a sewage-disposal plant. The estimated cost is $90,000

✚Cleveland, Ohio—The Board of Control has awarded the contract for the construction of a sewer in 105th St. to WILLIAM LECHMANN, at $50,879. Bids were opened Apr. 15. Noted Mar. 4 and Apr. 8.

✚Cleveland, Ohio—The contract for the construction of a sewer in Eddy Rd. has been awarded to the BROOKSIDE CONSTRUCTION CO., at $15,885. Bids were opened Apr. 8.

Findlay, Ohio—The city will issue $55,000 in bonds, the proceeds of which will be used for the construction of sanitary and storm sewers. H. A. Glathart is City Engr.

Kent, Ohio—The lowest bid submitted for the construction of a sanitary sewer system was that of William Hunt, Akron, at $59,600.

Lowellville, Ohio—The lowest bid submitted for the construction of the North Side sewer was that of the Turner-Olsen Contracting Co., Youngstown, at $24,961.

Mansfield, Ohio—An election will soon be held to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the construction of a sewage disposal plant. F. A. Barber, 1130 Tremont Bldg., Boston, Mass., is Engr. Noted Apr. 8.

Piqua, Ohio—Bids will be received until May 10 by R. H. Heater, Clk. Bd. of Pub. Ser., for the construction of a sanitary sewer in Adams St.

★Rittman, Ohio—(Official)—Bids will be received until 1 p.m., May 25, by Vance Hickin, Clk., for the construction of a sewer system and a sewage treatment plant.

Springfield, Ohio—Bids will be received until noon, May 14, by Charles E. Ashburner for the construction of a sanitary sewer in Cassilly St.

Struthers, Ohio—Bids will be received until noon, June 9, by Jonah Richards, Clk., for the construction of sanitary and storm sewers in Sexton St.

Swanton, Ohio—Bids will be received until noon, May 10, by William B. Elwell, City Clk., for the construction of sewer No. 1 in Sewer District No. 2.

Washington, C. H., Ohio—The city contemplates constructing sewers in North St. from Broadway to the alley between Court and Market St. Charles F. Coffey is Mayor.

✚Hammond, Ind.—The Board of Public Works has awarded the contract to the CALUMET SEWER CONSTRUCTION CO. for the construction of the sewer in Columbia Ave. Noted Apr. 15.

Princeton, Ind.—The city contemplates the construction of a trunk sewer for the South Side.

South Bend, Ind.—Bids will be received until May 15 by the Board of Public Works for the construction of a trunk sewer in Michigan St. The estimated cost is $50,000. E. M. Morris is Chn. of Bd. Pub. Wks. Noted Apr. 8.

✚Aurora, Ill.—(Official)—The contract has been awarded to R. P. KUCHN, Auroro, at $4406, for constructing sewers in various streets.

Kankakee, Ill.—The city contemplates constructing sanitary sewers in Bradley St. The estimated cost is $208,000.

✚Pana, Ill.—(Official)—The contract for the construction of a sewage treatment plant has been awarded to SELL & KOLLAR, Pana, at $26,692. Other bids were H. H. Hall, East St. Louis, $27,749; Dunlap-Dippoed Co., Edwardsville, $27,053; E. R. Harding Co., Racine, Wis., $31,956. Noted Apr. 8 and 29. A. C. Stanfield is City Engr.

Salem, Ill.—Bids will soon be received by the Board of Local Improvements for the construction of a sewer system. Estimated cost, $70,000.

Wenona, Ill.—The citizens have voted $25,000 in bonds for the construction of a sewer and water system.

✚Appleton, Wis.—(Official)—The contract for constructing sewers in South River, Madison and Jefferson St. has been awarded to H. BUSHOUS. Noted Apr. 15.

Oconomowoc, Wis.—Bids will be received until 1 p.m., May 21, by the Board of Public Works for constructing storm sewers in various streets. J. A. Stemper is City Engr.

Ripon, Wis.—Bids will be received until 4 p.m., May 31, by the Board of Public Works for the reconstruction of the southeast bed of sewers. J. W. Pierce is city Clk.

Blanchard, Iowa—The City Council contemplates holding a special election, at which the question of constructing a sewer system will be submitted to the voters.

Council Bluffs, Iowa—Bids will soon be received by the Department of Public Works for the construction of the Miller Park sewer, estimated to cost $50,000, and for extending the Saddle Creek sewer southwest of Harney St. The estimated cost is $50,000.

Mt. Ayr, Iowa—Bids will be received until May 17 by the Council for the construction of a sewer system. The estimated cost is $30,000. Noted Mar. 25 and Apr. 22. E. T. Archer & Co., 407 New England Bldg., Kansas City, Mo., is Engr.

Sioux City, Iowa—The city contemplates the construction of a storm sewer system in North Riverside. The estimated cost is $12,000.

Waterloo, Iowa—Plans have been prepared for the extension of the sewer system and for the construction of a sewage-disposal plant. C. A. Roby is City Engr.

✚Waukon, Iowa—The contract for the construction of a sewer system has been awarded to M. TSCHIRIGI & SON, Cedar Rapids, at $26,984. Noted Oct. 1 and 29.

Breckenridge, Minn.—Plans are being prepared by C. Baker, Engr., Wahpeton, N. D., for the construction of a sewer system. The estimated cost is $18,000.

Chatfield, Minn.—Plans are being prepared by F. Bass, Minneapolis, for the construction of sewers. S. C. Bibbens is Clk.

St. Paul, Minn.—All bids received for the construction of sewers in Raymond Ave. and Howard St. have been rejected. The work will be readvertised. Oscar Claussen is City Engr.

St. Paul, Minn.—The city contemplates the construction of the Fredericka-Fairmont sewer system. The estimated cost is $139,000.

Watertown, S. D.—The citizens voted to issue $88,000 in bonds for the construction of sewers.

Caruthersville, Mo.—See item under "Water Supply—Irrigation."

Kansas City, Mo.—An election will be held June 1 to vote on the question to issue $400,000 in bonds, the proceeds of which will be used for sewer construction.

✚Little Rock, Ark.—(Official)—The contract for the construction of storm and sanitary sewers in District No. 78 has been awarded to MERINO, BROOKS & BURKHAM, St. Louis, Mo., at $48,000. Ford & MacCrea is Engr. Noted Apr. 8.

Little Rock, Ark.—The city contemplates constructing sewers in the eastern part of District No. 79.

Beaumont, Tex.—The city has postponed the election to vote on the question of issuing $30,000 in bonds for the construction of sewers from May 20 to May 25. Noted Apr. 22.

Kaufman, Tex.—At a recent election the citizens voted $20,000 in bonds, the proceeds of which will be used for the construction of sewers.

✚Oak Cliff, Tex.—(Dallas post office)—(Official)—The contract for the construction of the Cedar Creek intercepter and overflow sewer has been awarded to the ROACH MANIGAN CO., at $32,149. Noted Apr. 22.

Limon, Colo.—Bids will be received until May 12 by Carl M. Cook, City Clk., for the construction of sewers. Plans have been prepared by George H. Sethman, Equitable Bldg., Denver.

✚Lewiston, Idaho—(Official)—The contract for sewer construction in District No. 6 has been awarded to the SECURITY BRIDGE CO., Lewiston, at $7833. Noted Apr. 15.

Salt Lake City, Utah—It is reported that bids will be received until June 1 by the City Recorder for the purchase of $100,000 in bonds, the proceeds of which will be used for the construction of sewer outlets in the western part of the city.

✚Spokane, Wash.—(Official)—The contract for the construction of the Sprague Ave. and Division St. section of the proposed sewer changes in connection with the Northern Pacific grade separation work has been awarded to W. J. HAY & CO., St. Paul, Minn., at $25,500. Noted Apr. 1 and 22.

North Bend, Ore.—The City Council has approved plans submitted by the City Engineer for the construction of a sewer system. It is reported that bids will soon be received. The estimated cost is $25,300.

Los Angeles, Calif.—The lowest bid received for the construction of a sewer in Mission Rd. from Baldwin St. to North Broadway and in other streets was that of Adam Dalmatin, Los Angeles, at $6300.

Los Angeles, Calif.—The lowest bid submitted for the construction of a sewer in Medford St. from Soto to Murichson St. and in other streets was that of J. J. Papac, Los Angeles, at $5448.

Port Angles, Calif.—Plans are being prepared by C. H. Green & Co., Engr., Spokane, Wash., for the construction of a sewer system.

Santa Monica, Calif.—An election will soon be held to vote on the question of issuing $236,633 in bonds, the proceeds of which will be used for the construction of a storm sewer system. Plans have been prepared by the City Engineer. Noted Dec. 3 and Jan. 21.

Stockton, Calif.—An election will be held in June to vote on the question of issuing $350,000 in bonds, the proceeds of which will be used for the construction of sanitary sewers.

Joliette, Que.—The Town Council plans to construct sewers estimated to cost $16,000.

Valleyfield, Que.—The Council contemplates constructing 3000 lin.ft. of sewers. The estimated cost is $12,000.

✚Dunnville, Ont.—The contract for the construction of a sewer system has been awarded to the FRONTIER CONTRACTING CO. The estimated cost is $5000. Noted Apr. 15.

London, Ont.—Bids will be received until 10 a.m., May 7, by S. Baker, City Clk., for the construction of a sanitary sewer in Price St., storm and sanitary sewers in Dundas East, and storm sewers in Carling Creek West and East.

Toronto, Ont.—Bids will be received until noon, May 11, by T. L. Church, Chn. of Bd. of Control, for the installation of a sludge pump and motor for the main sewage-disposal works.

GARBAGE

✚Toronto, Ont.—The contract has been awarded to the CANADIAN GRISCOM-RUSSELL CO., for constructing the Don incinerator. Noted Nov. 19, Mar. 18 and Apr. 22.

STREETS AND ROADS

Augusta, Maine—Amounts have been apportioned to be spent by the State Highway Commission for roads in various counties as follows: Androscoggin, $35,000; Aroostook, $25,000; Cumberland, $75,000; Franklin, $10,000; Hancock, $10,000; Kennebec, $25,000; Knox, $7000; Lincoln, nothing; Oxford, $15,000: Penobscot, $25,000: Piscataquis, nothing; Sagadahoc, $7000; Somerset, $20,000; Waldo, $12,000; Washington, $15,000; York, $2000. The total amount to be spent is $269,000.

Boston, Mass.—Bids will be received until May 11 by the Massachusetts Highway Commission for the construction of 17,100 lin.ft. of road in Falmouth, and for 7700 lin.ft. of road in Westford. Arthur W. Dean, 15 Ashburton Pl., is Ch. Engr.

✚Boston, Mass.—The contract for constructing 15,200 lin.ft. of state road in Bernardston has been awarded to E. R. NEWELL, Uxbridge, at $9834 for gravel, and at $14,195 for bituminous. Noted Apr. 15.

✚Boston, Mass.—(Official)—A contract for constructing stone sidewalks, steps and walls in Wellington Hill Footway from Wellington Hill to Walk Hill St., Dorchester District, has been awarded to PETER POMPIANI & CO., at $3747. Other bids were: John McCourt Co., $3993; James Doherty, $3995; John Landis, $3997; Concrete Construction Co., $4075; D. M. Biggs, $4149; Charles J. Jacobs, $4278; Warren Bros. Co., $4620; Simpson Bros., Corporation, $5605. Noted Apr. 22.

Fall River, Mass.—Bids will be received until 11:30 a.m., May 6, for laying hassam block paving and hassam concrete paving in accordance with specifications of the Street Department. Albert Wolstenholme is Supt. of Streets.

Newton, Mass.—Bids will be received until 11 a.m., May 14, by George E. Stuart, Street Comr., for building artificial stone curbing, walks and driveways.

✚Pittsfield, Mass.—Contracts have been awarded for paving West St. to WEED & WALSH, at $13,033, and Woodleigh Ave. to O. T. BENEDICT, at $5525.

Woonsocket, R. I.—The City Council, Apr. 27, appropriated $46,000 for paving Clinton St. with granite block. F. A. Mills is City Engr.

Bridgeport, Conn.—The City Council contemplates an expenditure of $250,000 for resurfacing public streets with warrenite.

✚Hartford, Conn.—Contracts have been awarded for asphalt paving and repair work to the UNION PAVING CO., Schenectady, N. Y., at $36,316, for 530 lin.ft. curbing and street corners, 460 lin.ft. granite headers, 1950 sq.yd. new flagstone, relaying 10,000 ft. granite curbing, $53,250 sq.ft. flag walk and 700 lin. ft. granite curbing to A. WATSON, Hartford, at $6490.

Hartford, Conn.—Bids will be received until 2 p.m., May 10, by the State Highway Commission, for state road work as follows: Greenwich Township, about 8475 lin.ft. bituminous concrete, amiesite or warrenite; Westport Township, about 813 lin.ft. brick pavement over concrete base; Simsbury Township, about 5300 lin.ft. bituminous concrete, amiesite or warrenite.

★Albany, N. Y.—(Official)—Bids will be received until 1 p.m., May 21, by Edwin Duffey, State Highway Comr., for improving highways in various counties.

★Albany, N. Y.—(Official)—Bids were received Apr. 20 by Edwin Duffey, State Highway Comr., and contracts awarded for repairing public highways by State Aid as follows: Repair Contract No. 705, Albany County, HIGHWAY ENGINEERING CO., Albany, $87,193; Repair Contract No. 695, Broome County, GEORGE HOLLER, Albany, $9911; Repair Contract No. 694, Chenango County, GEORGE HOLLER, Albany, $2291; Repair Contract No. 707, Clinton County, JOHN F. LEWIS, Albany, $30,435; Repair Contract No. 697, Otsego County, GEORGE HOLLER, Albany, $9971; Repair Contract No. 692, Schoharie County, GEORGE HOLLER, Albany, $5599; Repair Contract No. 704, J. J. GUINAN CONTRACTING CO., Brooklyn, $16,343; Repair Contract No. 703, Wayne County, SWEENEY & BOLAND, Rochester, $3000; Repair Contract No. 711, Wyoming County, McCARTHY & WALL, Mt. Morris, $8572. Noted Apr. 1 and 29.

✚★Albany, N. Y.—Official)—Bids were received Apr. 26 by Edwin Duffey, State Highway Comr., and contracts awarded for furnishing bituminous material to various counties as follows: Contract No. 1, Division No. 1, JOHN BAKER, JR., $25,244; Contract No. 2, Division No. 1, BARRETT MFG. CO., $45,880; Contract No. 3, Division No. 1, BARRETT MFG. CO., $2790; Contract No. 4, Division No. 2, JOHN BAKER, JR., $12,892; Contract No. 5, Division No. 2, BARRETT MFG. CO., $2276; Contract No. 6, Division No. 3, JOHN BAKER, JR., $1734; Contract No. 7, Division No. 3, BARRETT MFG. CO., $3937; Contract No. 8, Division No. 4, JOHN BAKER, JR., $11,242; Contract No. 9, Division No. 4, BARRETT MFG. CO., $2395; Contract No. 10, Division No. 5, JOHN BAKER, JR., $11,168; Contract No. 11, Division No. 5, BARRETT MFG. CO., $2353; Contract No. 12, Division No. 6, JOHN BAKER JR., $5583; Contract No. 13, Division No. 6, BARRETT MFG. CO., $8544. Contract No. 14, Division No. 7, JOHN BAKER, JR., $3192; Contract No. 15, Division No. 7, BARRETT MFG. CO., $3205; Contract No. 16, Division No. 7, BARRETT MFG. CO., $1378; Contract No. 17, Division No. 8, JOHN BAKER, JR., $5539; Contract No. 18, Division No. 8, BARRETT MFG. CO., $2284; Contract No. 19, Division No. 9, JOHN BAKER, JR., $6442; Contract No. 20, Division No. 9, BARRETT MFG. CO., $2724. Noted Apr. 15 and 29.

✚★Albany, N. Y.—(Official)—Bids were received Apr. 29 by Edwin Duffey, State Highway Comr., and contracts awarded for furnishing broken stone to the various counties as follows:

Stone Contract No. 41, Albany County, 1840 tons.. William Green, Schenectady, $4687; M. F. DOLLARD, Albany, $3586 (awarded contract); Langan Construction Corporation, Albany, $4643; Ralph W. Horne, New York, $4314; David H. Craw, Ravena, $3902; Highway Engineering Co., Albany, $4229.

Stone Contract No. 41, Albany County, 1840 tons. J. J. Malloy, Schenectady, $4176; BROWN & LOWE CO., Schenectady, $3724 (awarded contract); Ralph W. Horne, New York, $4054; J. T. D. Blackburn, Albany, $5012; John P. Miller, Schenectady, $4250; James T. Murray, Troy, $4008; Highway Engineering Co., Albany, $4324.

Stone Contract No. 54, Allegany County, 820 tons. KENNEDY CONSTRUCTION CO., Hornell, $2220 (awarded contract); McGreevey, McGuigan & Baum Construction Co., Elmira, $2540.

Stone Contract No. 32, Broome County, 1175 tons. PADDLEFORD & KING, Sherburne, $3040 (awarded contract).

Stone Contract No. 33, Broome County, 1365 tons. SMITH & KENT, Pine Valley, $3092 (awarded contract); Paddleford & King, Sherburne, $3098.

Stone Contract No. 57, Cattaraugus and Chautauqua Counties, 2450 tons. John Johnson Construction Co., Buffalo, $7325. Bid rejected.

Stone Contract No. 51, Cayuga County, 491 tons. No bids received.

Stone Contract No. 53, Chemung County, 1380 tons. Kennedy Construction Co., Hornell, $3690; McGREEVEY, McGUIGAN & BAUM CONSTRUCTION CO., Elmira, $3436 (awarded contract).

Stone Contract No. 37, Chenango County, 2645 tons. Nash & Griffin, Norwich, $6982; PADDLEFORD & KING, Sherburne, $6586 (awarded contract); Stewart Bros., South Plymouth, 6982; Richard Hopkins, Troy, $6982; M. F. Lannor, Norwich, $6850.

Stone Contract No. 46, Cortland County, 1010 tons. A. L. Call (unsigned), Cortland, $2161; RICHARD HOPKINS, Troy, $2293 (awarded contract).

Stone Contract No. 31, Delaware and Schoharie Counties, 1540 tons: RICHARD HOPKINS, Troy, $6474 (awarded contract).

Stone Contract No. 59, Erie County, 5050 tons: John Johnson Construction Co., Buffalo, $11,312; F H. WELLS, Corfu, $10,352 (awarded contract).

Stone Contract No. 60, Erie County, 3550 tons: John Johnson Construction Co., Buffalo, $9234; F. H. Wells, Corfu, $7563; JOHN W. LANDEL, Tonawanda, $7117 (awarded contract).

Stone Contract No. 58, Niagara County, 1400 tons: J. R. GOULD, Lockport, $2605 (awarded contract);W. D. Dickson, Lockport, $2882; John Johnson Construction Co., Buffalo, $3528.

Stone Contract No. 48, Onondaga County, 1165 tons: RICHARD HOPKINS, Troy, $2707 (awarded contract)

Stone Contract No. 35, Atsego County, 790 tons: Sherman Contracting Co., Inc., Oneonta, $1893; LANE CONSTRUCTION CO., Meriden, Conn., $1817 (awarded contract).

Stone Contract No. 43, Rensselaer County, 600 cu.yd.: Clarence E. Walker, Troy, $2079; JAMES T. MURRAY, Troy, $1909 (awarded contract); Edward Ott, Poestenkill, $2079.

Stone Contract No. 44, Rensselaer County, 1840 tons: William T. Shine, Troy, $2848; JAMES T MURRAY, Troy, $2728 (awarded contract); James J. Rigney, Rensselaer, $2833; John T. D. Blackburn, Albany, $3685.

Stone Contract No. 42, Rensselaer County, 815 cu.yd.: William T. Shine, Troy, $2627; JAMES T. MURRAY, Troy, $2192 (awarded contract); Hiram F. Sheffer, Troy, $2584; Edward Ott, Poestenkill, $2828.

Stone Contract No. 39, Saratoga County, 1650 tons: Mix Stone Co., Schoharie, $4422; William J. Morrissey, Saratoga, $4455. All bids rejected.

Stone Contract No. 45, Schenectady County, 2025 tons: BROWN & LOWE CO., Schenectady, $3659 (awarded contract); Ralph W. Horne, New York, $4501; Miller Bros., Schenectady, $4596; J. J. Malloy, Schenectady, $4009; Highway Engineering Co., Albany, $4495; J. P. Dugan & Co., Amsterdam, $4830.

Stone Contract No. 36, Schoharie County, 391 cu.yd.: Mix Stone Co., Schoharie, $1090; CHARLES ROSE & SON, Cobleskill, $938 (awarded contract).

Stone Contract No. 55, Schuyler County, 400 tons: McGreevey, McGuigan & Baum Construction Co., Elmira, $1040; KENNEDY CONSTRUCTION CO., Hornell, $980 (awarded contract).

Stone Contract No 49, Seneca County, 355 tons: Kennedy Construction Co., Hornell, $1065. Bid rejected.

Stone Contract No. 34, Sullivan County, 265 tons: G. C. BENNELL, Liberty, $927 (awarded contract).

Stone Contract No. 56, Tioga County, 780 tons: Kennedy Construction Co., Hornell, $2000; RICHARD HOPKINS, Troy, $1819 (awarded contract); McGreevey, McGuigan & Baum Construction Co., Elmira, $2106

Stone Contract No. 52, Tompkins County, 2465 tons: Kennedy Construction Co., Hornell, $6050; RICHARD HOPKINS, Troy, $5825 (awarded contract); McGreevey, McGuigan & Baum Construction Co., Elmira, $6384.

Stone Contract No. 47, Wayne County, 605 tons: No bids received.

Stone Contract No. 38, Yates County, 250 tons: McGreevey, McGuigan & Baum Construction Co., Elmira, $812; Richard Hopkins, Troy, $690; KENNEDY CONSTRUCTION CO., Hornell, $675 (awarded contract).

Stone Contract No. 50, Oswego County, 755 tons: DE BARBER & HILL, Fulton, $1698 (awarded contract) Pathfinder Construction Co, Fulton, $1963. Noted Apr. 22.

Albion, N. Y.—The Supervisors of Orleans County have voted to construct two county highways at an estimated cost of $144,200.

Bronxville, N. Y.—Bonds for $6000 were sold Apr. 28, the proceeds of which will be used for road improvements.

Cattaraugus, N. Y.—Press reports state that at a recent election the citizens voted in favor of issuing $19,500 in bonds, the proceeds of which will be used for paving two streets with brick.

✚Gloversville, N. Y.—The contract for paving Jay and West Eighth St. with concrete and macadam has been awarded to J. P. DUGAN & CO., Amsterdam, at $21,238. Other bids were: A. M. Baker, Gloversville, $26,553; Parkes-Hassam Paving Co., Worcester, $25,235; Schenectady Contracting Co., Schenectady, $28,478; A. L. Willey, Binghamton, $24,098.

Herkimer, N. Y.—Bonds for $102,280 have been sold, the proceeds of which will be used for improving highways in Herkimer County.

Mineola, N. Y.—The Mineola Homes Co., Inc., 358 Fifth Ave., New York, N. Y., will lay out several streets and install sidewalks and curbs. Fairfield & Dow, Mineola, is Engr.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received Apr. 29 for repairing asphalt block pavement and setting curb where necessary as follows: Hastings Paving Co., $16,230; Barber Asphalt Co., $15,195; Asphalt Construction Co., $16,092. Noted Apr. 22.

✚New York, N. Y.—(Borough of Brooklyn)—The contracts for improving East 10th St. from Ave. N to Ave. O, East 12th St. from Ave. R to Ave. S, and 38th St. from 10th St. to Ft. Hamilton Ave. have been awarded to the BROOKLYN ALCATRAZ ASPHALT CO., at $4236, $4056 and $3910 respectively. Noted Apr. 15 and 29.

✚Yonkers, N. Y.—The contract for paving Yonkers Ave. with asphalt block has been awarded to J. B. PENNELL & CO., Yonkers, at $130,329.

★Bayonne, N. J.—All bids received Apr. 6 for repaving and improving a number of streets have been rejected. Noted Mar. 25.

✚Cape May, N. J.—The contract for paving Washington St. from Perry to Franklin St has been awarded to the NEWTON PAVING CO., Trenton, at $20,000.

Elizabeth, N. J.—(Official)—All bids received Apr. 26 for grading, regulating and improving the Morris and Springfield Turnpike were rejected. The work will be readvertised. Noted Apr. 22.

Jersey City, N. J.—(Official)—Bids will be received until 2 p.m., May 13, by the Board of Commissioners for repaving Communipaw Ave. from Morris Canal to West Side Ave. and for improving Wegman Parkway from Ocean Ave. to Van Cleef St., with brick pavement. M. I. Fagen is City Clk.

Morristown, N. J.—The State Road Department has appropriated $61,000 for the improvement of the Morristown-Dover Rd. and the Caldwell-Parsippany Rd., near Pine Brook. The latter improvement is estimated to cost $10,000.

✚Newark, N. J.—(Official)—Contracts have been awarded for paving Chester Ave. to RALPH SANGIOVANNI, $21,685; Elm Rd., to RALPH SANGIOVANNI, $14,836; Hunterdon St., to JACKSON CONTRACTING CO., $13,050; Ferdinand St., to the NEWARK PAVING CO., $3903. Noted Apr. 15 and 29.

Weehawken, N. J.—Bids will be received until 8 p.m., May 10, by the Township Commission, 309 Park Ave., Weehawken, for regulating, grading, curbing, flagging and paving portions of 18th St. Thomas Carroll is Township Clk.

West New York, N. J.—The Town Council plans to extend 11th St. in an easterly direction from Palisade Ave.

Bethlehem, Penn.—Bids will soon be received for paving Prospect Ave. from Hanover St. to Seventh Ave and North Main St. from Garrison to Goepp St.

Milton, Penn.—The City Council contemplates paving North Front St. at an estimated cost of $50,000.

✚Scottdale, Penn.—Contracts have been awarded for paving Pittsburg St. from Vine to the borough line, and Hickory St. from Market St. to Arthur Ave. to LUTHER F. EDWARDS, Greensburg, at $8264 and $9876 respectively.

Sharon Hill, Penn.—Mainwaring & Cummins was low bidder at $18,000 for resurfacing and oiling streets.

Cambridge, Md.—Bids will be received until May 11 by the Commissioners of Dorchester County for constructing about two miles of 9-ft. shell macadam State Aid highway along the Nanticoke River Rd. between Vienna and Holland cross roads.

Easton, Md.—Press reports state that all bids received Apr. 13 for constructing about 1.57 miles of State Aid highway in Talbot County along Tunis Mills Rd. have been rejected. The work will be done by day labor. Noted Apr. 8.

✚Fairfax, Va.—A contract for constructing macadam roads in Fairfax County has been awarded to L. M. JOHNSON.

Taylorsville, N. C.—All bids received Apr. 26 for the sale of $150,000, the proceeds to be used for improving roads, were rejected. Noted Feb. 18 and Apr. 1.

★Greenville, S. C.—(Official)—Bids will be received until 11 a.m., May 14, by the Mayor, City Council and paving Commission for street paving and sidewalks in the City of Greenville. The work includes 70,000 sq.yd. of street paving, 20,000 sq.yd. of sidewalk paving, 25,000 lin.ft. of granite curb, 10,000 lin.ft. concrete curb and gutter combined, storm sewers, catch basins, etc. John B. Marshall is Mayor. C. P. Ballenger is City Engr.

Starke, Fla.—An election will be held May 31 for the purpose of voting on the question of issuing $16,000 in bonds, the proceeds of which will be used for paving streets.

Hazlehurst, Miss.—Bids will be received until June 7 by Copiah County District No. 5 Road Commissioners for constructing gravel roads; $150,000 in bonds were voted for this purpose, at a recent election. Noted Mar. 4.

✚New Orleans, La.—(Official)—The contract for constructing about nine miles of the Abbeville-Kaplan Highway, Vermilion Parish, has been awarded to H. H. SHACKELFORD CO., Bayou Sara, $14,644. Other bids were: J. N. George & Sons, $16,835; Geren & Sealy, New Iberia, $17,565; W. S. Neilson, Bayou Sara, $17,640. Noted Apr. 8.

✚Akron, Ohio—(Official)—The contract for improving the Richfield Rd. has been awarded to E. McSHOFFREY & SON, Akron. Noted Apr. 15.

Bedford, Ohio—(Official)—Bids will be received until noon, June 3, by E. J. Caskey, Clk., Bd. of Trustees, for the sale of $14,000 in bonds, the proceeds to be used for improving various roads leading into Bedford Township.

Bethesda, Ohio—At the election held Apr. 27 the citizens voted in favor of issuing $56,000 in bonds, the proceeds to be used for street paving.

Bexley, Ohio—Bids will be received until noon, May 19, by Chester A. Miller, Clk., for grading, curbing and paving Park View, Columbia, Drexel, Town and Pleasant Ridge Ave.

Bucyrus, Ohio—Bids will be received until May 13 by August Broemel, Clk., Bd. of Pub. Ser., for paving West Mary St. with brick.

Canton, Ohio—The plan to macadamize the Navarre-Justus Rd., the contract for which was recently awarded to Wise Bros., at $23,551, has been abandoned. Noted Apr. 8 and 29.

Cincinnati, Ohio—(Official)—Bids will be received until noon, Apr. 14, by Philip Fosdick, Div. Pub Ser., for improving earth roadways in the First, Third, Fourth and Fifth macadam districts.

Cincinnati, Ohio—(Official)—Bids will be received until noon, May 13, by the Board of Park Commissioners, for improving Bloody Run Parkway from Lincoln Ave. to Chapel St. W. Hodgkinson is Secy. of Bd.

Cincinnati, Ohio—(Official)—Bids will be received until noon, May 10, by Philip Fosdick, Dir. Pub. Ser., for improving Maplewood Ave. from Helen St. to McCormick Pl.

✚Columbus, Ohio—(Official)—Bids were received Apr. 2 by the State Highway Commission and contracts awarded for road construction in various counties as follows: Allen County, Section G, Lima-Ottawa Rd., brick, MICHAEL O'BRIEN, Lima, $10,440; Champaign County, Section K, Troy-Urbana Rd., concrete, KORAH E. KUNKLE, Dayton, $10,443; Cark County, Section H, Springfield-Washington Rd., waterbound macadam, ROBINS & McDANIEL, Dayton, $23,966; Erie County, Section L, Cleveland-Sandusky Rd., concrete, FRED R. JONES CO., Cleveland, $70,107; Fayette County, Section G, Springfield-Washington Rd., brick, JOHN A. VAN GUNDY, Washington C. H., $2847; Hancock County, Section E, Lima-Sandusky Rd., waterbound macadam, SOUSLEY & BRITTON, Ada., $7874; Huron County, Section K, Plymouth-Norwalk Rd., concrete, G. E SCOTT, Norwalk, $12,400; Lake County, Section H, Cleveland-Buffalo Rd., brick, E. A. FRESHWATER & SONS, Chester, W. Va., $117,990; Montgomery County, Section I, Dayton-Troy Rd., brick, ELSWORTH BRENTLINGER, Dayton, $28,882; Paulding County, Section E, Defiance-Delphos Rd., waterbound macadam, ERIE STONE CO., Van Wert, $8929; Paulding County, Section D, Continental-Paulding Rd., waterbound macadam, R. C. ROACH, Waterville, $6900; Sandusky County, Section F, Fremont-Castalia Rd., waterbound macadam, MODERN CONSTRUCTION CO., Fremont, $16,400; Shelby County, Section B, Piqua-Sidney Rd., waterbound madacam, HAMILTON & BUNGER, Elorado, $16,997; Tuscarawas County, Section K, Wooster-Canal Dover Rd., brick, HOLMES CONSTRUCTION CO., Millersburg, $20,800; Tuscarawas County, Section I, New Comerstown-Urichsville Rd, brick, YOUNT & JACKSON, Dayton, $18,979; Tuscarawas County, Section J, New Philadelphia-West Lafayette Rd., brick, SPRINGER & ROGERS, New Philadelphia, $32,433; Warren County, Section B, Cincinnati-Chillicothe Rd., waterbound macadam, IRONTON TRANSFER & STORAGE CO., Ironton, $16,500; Williams County, Section J, Bryan-Pioneer Rd., waterbound macadam and concrete, KELLY CONSTRUCTION CO., Bryan, $9395. Noted Mar. 25 and Apr. 1.

✚Fremont, Ohio—The contract for paving Wayne St. has been awarded to the MODERN CONSTRUCTION CO., at $13,049. Bonds were sold Apr. 20. Noted Apr. 22.

✚Marion, Ohio—The contract for paving Marion St. from Prospect to Windsor St. has been awarded to the H. P. STREICHER CO., Toledo, at $6500.

Mt. Gilead, Ohio—Bids will be received by O. C. Higgins, Audr., Bd. of County Comrs., until noon, May 28, for macadamizing 3½ miles of road, known as the Marengo Rd. No. 2, in Bennington Township.

Painesville, Ohio—(Official)—Bids will be received until noon, May 20, by the Board of Commissioners of Lake County for the sale of $68,000 in bonds, the proceeds to be used for improving and paving the Cleveland Buffalo Inter County Highway No. 2, in Mentor and Willoughby Townships.

Savannah, Ohio—(Official)—Bids will be received until noon, June 1, by L. O. Hartman, for the sale of $45,000 in bonds, the proceeds to be used for improving five miles of road in Clearcreek Township.

Springfield, Ohio—Bids will be received until noon, May 14, by Charles E. Ashburner, City Mgr., for paving Cassilly St with asphalt.

Swanton, Ohio—Bids will be received until noon, May 10, by W. B. Elwell, Clk., for paving Chestnut St.

Wauseon, Ohio—Bids will be received until May 18 by W. W. Ackerman, Audr. of Fulton County, for improving Franklin, Clinton and Dover Rd., about 4½ miles in all.

Elkhart, Ind.—Press reports state that the Board of Works has voted to pave Third, Jefferson, Sherman and Fifth St. and Indiana Ave.

✚Frankfort, Ind.—The contract for paving East Boone St. has been awarded to N. L. BRANT & CO., Frankfort, at $7265.

Indianapolis, Ind.—Plans are being prepared by J. T. Jeup, City Engr., for resurfacing Maryland St. from Senate to Capitol Ave.

✚Indianapolis, Ind.—The contract for paving 17th Ave. with concrete has been awarded to WILLIAM COIN, Frankfort, at $15,543.

✚Vincennes, Ind.—The contract for paving Shelby St. has been awarded to the PREMIER CONSTRUCTION CO., Indianapolis, at $12,910.

✚Bloomington, Ill.—A contract for paving Olive, Jackson and Warner St. and White Pl. Blvd. with brick has been awarded to I. D. LAIN, at $30,912.

✚Decatur, Ill.—The contract for paving North Water, South Water and East William St. has been awarded to S. A. TUTTLE, Decatur, at $93,562.

✚Urbana, Ill. — Contracts for paving North Market St., Michigan Ave. and North Orchard St. have been awarded to JOHN W. STIPES, Champaign, at $35,000, $10,000 and $5000 respectively.

Fond du Lac, Wis.—Bids will be received until 3 p.m., May 18, by the Board of Public Works for grading and paving Arndt St. from Park Ave. to Packer St.

Lake Geneva, Wis.—(Official)—Bids will be received until 4 p.m., May 22, by Frank A. Briegel, City Clk., for improving Main St. from Cook to Maxwell St.

✚Oconomowac, Wis.—The contract for paving Third St. with asphalt, has been awarded to the NELSON-WEBER CO.

Forest City, Iowa—(Official)—Bids will be received until 8 p.m., May 12, by G. B. Chryst, Town Clk., for curbing and paving a number of streets and alleys. The work includes 32,000 sq.yd. of street paving, 778 sq.yd. of alley paving, 22,000 lin.ft. of curb and gutter, and 3000 lin.ft. of storm sewers.

✚Neodesha, Kan.—A contract for improving various streets has been awarded to A. W. VAN HAFFTON, Joplin, Ohio, at $28,024. Other bids were: Green & Cullen, Independence, $28,221; Williams Contracting Co., Joplin, Mo., $30,011; Williston Contracting Co., Chicago, Ill., $29,775; Edwin Geiger, Leavenworth, $29,175. Noted Apr. 22.

Lincoln, Neb.—Press reports state that the State Legislature has passed a bill providing for an appropriation of $35,000 for the state's share for connecting pavements between Lincoln and University Pl.

Blue Springs, Mo.—At the election held Apr. 14 the question of issuing $10,000 in bonds, the proceeds to be used for paving, was defeated. Noted Apr. 8.

Cuero, Tex.—At the election held Apr. 17 the citizens of Precinct No. 2, De Witt County, voted in favor of issuing $50,000 in bonds, the proceeds to be used for road improvements. Noted Apr. 8.

✚Dallas, Tex.—The contract for paving Peabody Ave. from Oakland Ave. to the Texas & Pacific R.R., has been awarded to the STANDARD ENGINEERING CO., at $15,414.

✚Houston, Tex.—The contract for paving Main St. with asphaltic concrete has been awarded to the EUREKA PAVING CO., at $150,000. Noted Mar 25 and Apr. 22.

Marshall, Tex.—(Official)—Bids were received Apr. 6 for constructing approximately 20 miles of graveled and macadam highway in Road District No. 1, as follows: W. T. Montgomery, San Antonio, $59,400; J. H. Howard & Son, $55,633; Roach Manigan Paving Co., Ft. Worth, $53,137; Smith Bros., Crockett, $41,893; E. Key, Jr., Marshall, $59,774; Wetzell & Co., Danville, Ill., $70,543; J. N. George & Sons, $61,546; S. A. Gano, Jackson, Miss., $54,048; O. C. McElrath, Tyler, $60,447; Owens Construction Co., $54,819. Noted Apr. 1.

Sherman, Tex.—At the election held Apr. 17 the citizens voted in favor of issuing $900,000 in bonds, the proceeds of which will be used for constructing 225 miles of gravel roads in Grayson County. Noted Mar. 25.

✚Boise, Idaho—(Official)—Bids were received Apr. 26 by the State Highway Commission for constructing (a) 26 miles of the Idaho-Pacific Highway in Bannock County, (b) eight miles of the Idaho-Pacific Highway in Power County, (c) 24 miles of the Idaho-Pacific Highway in Power County as follows: IDAHO CONSTRUCTION CO., Boise, (a) $13,197, (b) $5597 (awarded contract); Alley & Nelson, Boise, (a) $17,795; F. Crane, Boise, (a) $14,918, (b) $6353, (c) $22,792; Fred Nuffer, (a) $14,772; S. A. Forter, American Falls, (b) $6331, (c) $22,565; C. H. MULL, Twin Falls, (b) $7174, (c) $23,087; Peter Cook, American Falls, (b) $5910; S. C. COMERFORD, Boise, (c) $19,697 (awarded contract).

Lapwai, Idaho—(Official)—All bids received Apr. 20 for macadamizing Main St. and cross streets were rejected by the Town Council. Noted Apr. 15.

Price, Utah—At the election held Apr. 12 the citizens voted in favor of issuing $31,000 in bonds, the proceeds to be used for constructing roads. Bids will be received until May 15 by A. Ballinger, Treas. of Carbon County, for the sale of these bonds. Noted Mar. 18.

Concrete, Wash.—Bids will be received until May 17 by Charles F. Clark, City Clk., for improving Main St. The estimated cost of the work is $12,000. Noted Mar. 25.

✚Edmonds, Wash.—A contract for grading, graveling and paving one-half mile of streets has been awarded to McGUIRE BROS., Seattle, Wash., at $3988. Noted Apr. 15.

Ellensburg, Wash.—Bids will be received until 2 p.m., June 7, by the Commissioners of Kittitas County for grading and graveling Permanent Highway No. 1-A. Moses M. Emerson is County Engr

✚Montesano, Wash.—The contract for constructing the Laidlaw-Cohassett Rd. has been awarded to M. D. HOGAN, Hoquiam, at $5765.

✚Ritzville, Wash.—(Official)—The contract for constructing Permanent Highway No. 3-A has been awarded to A. H. ZANE & CO., Hanford, at $40,817. Noted Apr. 15.

Seattle, Wash.—Bids were received Apr. 20 by the Commissioners of King County for constructing the Redmond-Snoqualmie Highway as follows: S Normile, 608 Kinnear Pl., Seattle, $43,400; R. H. Wheaton, Seattle, $49,484; C. H. Kiehl, Seattle, $49,900; Sloane Bros., Seattle, $49,990; Henry Brice, Seattle, $52,482; Nettleton, Bruce & Eschbach, Seattle, $74,409. Noted Apr. 8.

✚Seattle, Wash—The contract for paving Bellevue Pl. has been awarded to the JAHN CONTRACTING CO.

Seattle, Wash.—Bids will be received until May 17 by the Commissioners of King County for constructing Permanent Highway No. 9-A. Byron Phelps, Clk. of the Comrs.

Spokane, Wash.—Bids will be received until 2 p.m., May 21, by the Board of Commissioners of Spokane County for grading and paving Palouse Permanent Highway No. 12-A.

✚Portland, Ore.—The contract for paving Brooke St. has been awarded to GIEBISCH & JOPLIN, at $13,577.

✚Tillamook, Ore.—The contract for constructing the Sandlake Rd. has been awarded to JEFFREY & BUFTON, Portland, at $5116.

Livermore, Calif.—Bonds for $50,000 have been sold, the proceeds of which will be used for paving. Noted Apr. 1.

Sacramento, Calif.—(Official)—Bids were received Apr. 26 by the State Highway Commission for constructing roads in various counties as follows: (a) Monterey County, Section H, Division 5, Route 2, (b) Sonoma County, Section C, Division 4, Route 14, (d) Monterey County, Section E, Division 5, Route 2, (e) Monterey County, Section A, Division 5, Route 2; C. H. & A. W. Gorrill, Oakland, (a) $127,322; Bates, Borland & Ayer, Oakland, (a) $112,023, (b) $48,857, (c) $28,083; Highway Paving & Construction Co., Palo Alto, (a) $111,431, (d) $51,393, (e) $30,830; L. F. Gerdetz, San Francisco, (a) $103,207, (b) $45,858; James Fitzpatrick, Sacramento, (a) $116,645, (b) $57,594, (c) $38,852, (d) $64,965, (e) $39,074; A. C. McLean Construction Co., San Francisco, (a) $127,874; C. H. Hudson, Los Angeles, (a) $102,565; Hovman & McLaren, Oakland, (a) $94,679, (b) $45,955, (c) $32,668; F. Rolandi, San Francisco, (a) $125,490; Sandercock Transfer Co., San Luis Obispo, (a) $123,683; Mahoney Bros. and Allison & Cole Construction Co., San Francisco, (a) $137,366; Frank L. Smith Co., Eureka, (a) $92,435; Twohy Bros. Co., San Francisco, (a) $98,693, (b) $39,729, (c) $28,552; W. A. Dontanville, Paso Robles, (a) $144,154, (d) $90,809, (e) $39,908; Mesmer & Rice, Los Angeles, (a) $115,770; W. B. Hunt & Sons, Alameda, (a) $112,493, (b) $45,893; Morin Rock Co., San Anselmo, (b) $40,080; Fairbanks & Baechtel, Willets, (b) $55,969; Petersen & Grier, San Francisco, (b) $54,521, (c) $34,236, (e) $34,833; Blanchard Brown Co., San Francisco, (b) $52,620, (c) $40,725; T. M. Burns, Sacramento, (c) $34,928; Taylor & Bertiner, Los Angeles, (c) $32,098; W J. Schmidt, Berkeley, (c) $32,139; Bent Bros., Los Angeles, (d) $71,882 (informal); Lon G. Hare, Salinas, (e) $35,558; T. M. Burns, Sacramento, (e) $30,662. Noted Apr. 15.

Halifax, N. S.—(Official)—We have been advised by F. W. W. Doane, City Engr., that the construction of concrete sidewalks will be done by day labor. Noted Apr. 15.

✚**Ottawa, Ont.**—(Official)—The contract for paving Bank St. from Echo Drive to Grove St. has been awarded to the OTTAWA CONSTRUCTION CO., Central Chambers, Ottawa. Noted Apr. 15.

INDUSTRIAL WORKS

✚**Boston, Mass.**—The contract for the construction of a three-story, reinforced-concrete garage at 690 Beacon St. for H. Ross-Maddocks Co., Inc., has been awarded to WILLIAM F. KEARNS, 240 Albany St., Cambridge, Mass. Monks & Johnson, 78 Devonshire St., is Engr.

Boston, Mass.—The Edison Co. will erect a twelve-story building on Chauncey St. for storage battery purposes.

Cambridge, Mass.—Jardine, Hill & Murdock, Arch., 3 West 29th St., New York, N. Y., is receiving bids for the construction of a two-story, 66x130-ft. publishing building for the Harvard Crimson, Cambridge, Mass. It will cost $70,000.

✚**Chicopee Falls, Mass.**—The Fisk Rubber Co. has awarded the contract to FRED T. LEY & CO., Springfield, Mass., for the construction of a six-story, 30x50-ft., brick and steel addition to its plant. The estimated cost is $15,000.

Dudley, Mass.—Henry Merritt, Webster, Mass., plans to construct a factory to cost $15,000.

Hartford, Conn.—The Whitney Mfg. Co. will construct a four-story, 60x64-ft., reinforced-concrete addition to its factory on Bartholomew Ave. William A. Boring, 32 Broadway, New York, N. Y., is Arch.

Hartford, Conn.—E. Gross & Co., 95 Commerce St., will build a three-story, 30x96 ft. storage building to cost $20,000. Berenson & Goodrich, Pilgarde Bldg., Arch., is receiving bids.

New Britain, Conn.—The North & Judd Co. will construct a six-story addition to its plant, and add two stories to its present building.

New Haven, Conn.—The Winchester Repeating Arms Co. will build a one-story, 42x236-ft., brick and steel building on Argyle St., to be used as a scrap shed. The estimated cost is $30,000. L. W. Robinson is Arch.

✚**New London, Conn.**—The Standard Oil Co. has awarded the contract to the JOHN J. O'LEARY CO., Passaic, N. J., for the construction of a reinforced-concrete plant and three steel supply tanks at Lewis St. and Eastern Ave, Estimated cost, $75,000.

Waterbury, Conn.—It is reported that the Scoville Mfg. Co., 99 Mill St., plans the construction of a one-story, 250x600-ft. reinforced-concrete factory at Hamilton Ave. and Silver St. H. L. Thompson, 57 North Main St., is Arch.

Albany, N. Y.—The B. Payns Sons Tobacco Co., 915 Broadway, will make additions and alterations to its factory to cost $45,000. D. Stuart Douglas, 100 State St., Arch., is receiving bids.

Buffalo, N. Y.—The Ford Motor Co., Detroit, Mich., will construct a four-story, 100x470 ft. automobile plant, to cost $500,000. Albert Kahn, 60 La Fayette Ave., Detroit, Mich., is Arch.

Le Roy, N. Y.—(Official)—The Le Roy Salt Co. advises us that it will construct a two- or three-story, 68x112-ft. brick and tile plant to cost $40,000. George Schantz, Ellicott Sq., Buffalo, N. Y., is Arch. Noted Apr. 29.

New York, N. Y.—(Borough of Brooklyn)—(Official)—William Higginson, Arch., 21 Park Row (Borough of Manhattan), advises us that plans are being prepared for the construction of a ten-story, 77x258-ft. reinforced-concrete factory for the Fred Gretsch Mfg. Co., 110 South Fourth St. Noted Apr. 29.

New York, N. Y.—(Borough of Manhattan)—(Official)—Elliott Lynch, Arch., 347 Fifth Ave., advises us that construction will begin soon on the construction of a four-story, 75x100-ft. garage for Louis Richard, 110 West End Ave., to cost $50,000. Noted Apr. 29.

✚**New York, N. Y.**—(Borough of Manhattan)—(Official)—The ANDREWS BUILDING CO., 348 East 54th St., has been awarded the contract for the construction of a machine room, coal vault, and storage room for the Harlem Hospital, 137th St. and Lenox Ave., at $12,666. Noted Apr. 22.

✚**New York, N. Y.**—(Borough of Brooklyn)—The Gulf Refining Co., Pittsburgh, Penn., has awarded the contract to THOMAS DRYSDALE, 26 Court St., Brooklyn, N. Y., for the construction of a one-story warehouse and garage to cost $20,000. Tooker & Marsh, 101 Park Ave., New York, N. Y., is Arch.

New York, N. Y.—(Borough of Manhattan) — Julius M. Cohen will build a sixteen-story, 98x223-ft. printing plant and factory on 26th St., to cost about $350,000. Schwartz & Gross, 347 Fifth Ave., is Arch.

New York, N. Y.—(Borough of Manhattan)—John J. Radley, 35 West 32nd St., will build a twelve-story, 98x124-ft. printing plant at 229 West 28th St., to cost $300,000. William M. Farrar, 1269 Broadway, is Engr.

✚**New York, N. Y.**—(Borough of Manhattan)—The contract for the construction of a two-story, 38x77-ft. warehouse for the Manhattan Ry. Co., 165 Broadway, has been awarded to EDWARD CORNING CO., 52 Vanderbilt Ave. The estimated cost is $30,000. G. H. Pegram, 165 Broadway, is Arch. Noted Mar. 11.

New York, N. Y.—(Borough of Queens)—The Courtney Developing Co. will build a concrete factory on Anable St., estimated to cost $100,000.

Asbury Park, N. J.—H. W. Spink will build a two-story garage to cost $15,000. Clarence W. Brazer, Arch., 1133 Broadway, New York, N. Y., is receiving bids.

Jersey City, N. J.—Preliminary plans have been prepared by John T. Rowland, Jr., Arch., 98 Sip Ave., for the construction of a two-story storage, repair shop and garage for the City of Jersey City. The estimated cost is $90,000.

Perth Amboy, N. J.—(Official)—F. G. Ring, Ring-Cleaves-Graham Co., Arch., 280 North Broad St., Elizabeth, N. J., advises us that construction will begin soon on a four-story, 35x76-ft. steel-frame and brick filter house for the Chesebrough Mfg. Co. The estimated cost is $23,000. Noted Apr. 29.

Perth Amboy, N. J.—A. M. Metzendorf will build a two-story grain elevator on New Brunswick Ave.

Plainfield, N. J.—The Sauer Motor Co. will build a $25,000 factory.

Allentown, Penn.—The City of Allentown will build a two-story, 20x100-ft. machine and tool shop, and a two-story, 42x100-ft. office building, to cost $20,000. James A. Schmidt is Clk. of Water Dept. Charles Blazer, 536 Tilghman St., is Arch.

Canonsburg, Penn.—Louis Follet, Gen. Mgr., Standard Tin Plate Co., announces that the company will build an addition to its plant.

Easton, Penn.—Reynolds & Terrell will build a two-story factory to cost $15,000. William M. Michler, Drake Bldg., is Arch.

Harrisburg, Penn.—Bids have been received by Day & Zimmerman, 611 Chestnut St., Philadelphia, Penn., for the construction of six one- and two-story factories for the W. O. Hickok Mfg. Co. The estimated cost is $150,000.

Philadelphia, Penn.—Samuel Sternberger, Tenth and Filbert St., will build a one-story, 80x115-ft. garage. The estimated cost is $25,000. Sauer & Hahn, Arch., 1112 Chestnut St., is receiving bids.

Philadelphia, Penn.—The Estate of J. C. Milne will build a two-story, 59x76-ft. garage, to cost $25,000. William Steele & Sons Co., 1600 Arch St., is Arch.

✚**Philadelphia, Penn.**—Charles Gans has awarded the contract for the construction of a two-story, 60x125-ft. factory to E. E. HOLLENBACK, 15th and Race St. It will cost $13,000. Noted Apr. 22.

Philadelphia, Penn.—Christian J. Ludwig, 6367 Germantown Ave., will build a four-story, 45x49-ft. warehouse to cost about $12,000. Bids are being received.

✚**Philadelphia, Penn.**—F. Brecht's Sons, 109 North Orianna St., has awarded the contract to MONAGHAN & LOSSE, 214 South 12th St., for the construction of a two-story, 43x53-ft. factory, to cost $15,000. Arthur O. Forester, Roxboro, is Engr.

✚**Pittsburgh, Penn.**—P. H. Butler, 1205 Liberty Ave., has awarded the contract for the construction of a seven-story, 60x110-ft., reinforced-concrete warehouse, to GEORGE HOGG CO., Keystone Bldg. The estimated cost is $100,000. Hunting & Davis, Century Bldg., is Arch. Noted Apr. 1.

Washington, Penn.—The Topliff Co. will expend $25,000 on the improvement and extension of its plant.

Newport, Del.—Bids will be received until May 6 by Krebs Pigment & Chemical Co. for the construction of a three-story, 103x223-ft. brick and reinforced-concrete factory.

✚**Baltimore, Md.**—L. W. Allers & Son, 1138 South Charles St., has awarded the contract for the construction of a two-story warehouse to J. HENRY SMITH, 1426 Light St. The estimated cost is $15,000. J. C. Spedden, 1640 Hanover St., is Arch.

Baltimore, Md.—The Canton Co., Commerce and Water St., will build a four-story warehouse, to cost $50,000. F. S. Simon, care of Canton Co., is Engr.

Washington, D. C.—C. D. Cooley Co., Arch., Century Bldg., Pittsburgh, Penn., will soon receive bids for the construction of a three- and four-story ice cream plant for Chapin Sacks Mfg. Co., First and M St. The estimated cost is $35,000. Noted Sept. 3.

Thomasville, N. C.—It is reported that the Amazon Cotton Mills will build an addition to its plant. J. W. Cannon, Concord, N. C., is interested.

Columbus, Ga.—The West Point Mfg. Co. will construct a cotton mill. George H. Lanier, West Point, is interested.

Gadsden, Ala.—J. H. Arnold, of J. H. Arnold & Co., announces that plans will soon be prepared for the construction of a warehouse.

✚**Natchez, Miss.**—The TRIUMPH ICE MACHINE CO., 503 Fourth National Bank Bldg., Cincinnati, Ohio, has been awarded the contract for the construction of a cold-storage plant for the Natchez Fish Co. M. R. Carpenter, 2916 Minot St., Cincinnati, Ohio, in Arch. Noted Apr. 29.

De Ridder, La.—G. W. Cline proposes to build a canning factory with an output of 5000 cans per day.

✚**Memphis, Tenn.**—The Hart Saddlery Co., Second and Union St., has awarded the contract for the construction of a two-story warehouse to A. WHIFFEN, 1364 Ridgeway Ave. The estimated cost is $21,000.

Canton, Ohio—The Globe Motor Co., 408 Cherry St., will build a three-story, 60x200-ft. garage and salesroom, estimated to cost $50,000. E. J. Landor, 634 Renkert Bldg., is Arch.

Cleveland, Ohio—The Van Dorn Iron Works Co., 2685 East 79th St., will build a one-story, 85x180-ft. factory to cost $12,000.

✚**Cleveland, Ohio**—C. E. Taft Co., 1676 Center Ave., has awarded the contract for rebuilding its three-story factory to H. G. SLATMYER & SONS CONSTRUCTION CO., 203 Lakeside Ave. It will cost $12,000.

✚**Cleveland, Ohio**—The W. S. Ferguson Co., Arch., 1900 Euclid Bldg., has awarded the contract to the WALTHER ENGINEERING & CONSTRUCTION CO., 1941 East 66th St., for the construction of a three-story, 100x152-ft. auto sales and garage building for Mrs. Amanda Corlett, 1020 Rockefeller Bldg., to cost $11,000. Noted Apr. 29.

Cleveland, Ohio—The Byrant Heater Mfg. Co., 978 East 64th St., Cleveland, has had plans prepared for the construction of a three-story factory at 952 East 72d St., to cost $50,000. Fox & Osborne, 1602 Woodward Ave., Cleveland, is Arch.

✚Cleveland, Ohio—The contract for the construction of a four-story, 100x165-ft. factory for the Brown Carriage & Auto Co. has been awarded to the SAMUEL AUSTIN & SON CO., 14,230 Euclid Ave.

Cuyahoga Falls, Ohio—The Falls Rubber Co. will build a three-story, 80x200-ft. factory. Ernest McGeorge, 853 Leader-News Bldg., is Engr.

✚Lakewood, Ohio—The contract for the construction of a one-story, 155x175-ft. addition to the plant of the Cleveland Welding & Mfg. Co., 2129 West 117th St., has been awarded to the HUNKIN-CONKEY CONSTRUCTION CO., 321 Cuyahoga Bldg.

✚Lakewood, Ohio—The contract for the construction of a one-story, 50x250-ft. factory at Madison Ave. and West 160th St., Lakewood, Ohio, for the Parish & Bingham Co. has been awarded to the W. I. THOMPSON & SON CO., 6110 Euclid Ave., Cleveland.

Toledo, Ohio—The Toledo Cooker Co. West Bancroft St., will construct a two-story, 72x144-ft. factory addition, to cost $30,000. Mills, Rhines, Bellman & Nordorff, 1234 Ohio Bldg., is Arch.

Toledo, Ohio—The International Harvester Co. will build a five-story, 130x140-ft. warehouse. Devore & McGormley, 304 Nasby Bldg., is Arch.

✚Yorkville, Ohio—The Wheeling Steel & Iron Co., Wheeling, W. Va., has awarded the contract for the construction of a $25,000 addition to its plant to the FORT PITT BRIDGE CO., House Bldg., Pittsburgh, Penn.

✚Battle Creek, Mich.—S. B. MORGAN, 5 Morgan Bldg., has been awarded the contract for the construction of a two-story, 47x66-ft. building for the News & Enquirer Publishing Co., at an estimated cost of $21,000. G. C. MacComber, 712 Post Bldg., is Arch.

Detroit, Mich.—J. L. Hudson Co., Woodward Ave., will construct a six-story, 50x200-ft. warehouse. Smith, Hinchman & Grylls, 710 Washington Arcade, is Arch.

Detroit, Mich.—The Packard Motor Car Co. plans the construction of a three-story, 52x113-ft. addition to its plant on Concord Ave., to cost $10,000.

Detroit, Mich.—Scott Bros. Electric Co., 34 Macomb St., will build a four-story, 25x115-ft. factory to cost $12,000. Pollmar & Ropes, 602 Sun Bldg., is Arch.

Saginaw, Mich.—Bids will be received until May 8 by Allen & Curtis, Forester Bldg., for the construction of a two-story, 40x150-ft. printing building for the Valley Printing Co., Franklin St.

Chicago, Ill.—The Peoples Crushed Stone Co., 1733 First National Bank Bldg., has obtained a permit, and will build a stone-crushing plant at 2647 Montrose Ave., to cost $20,000.

Chicago, Ill.—The Link Belt Co., 39th and Stewart Ave. will build an 80x180-ft. warehouse to cost $60,000. Charles A. Urbanek, 35 South Dearborn St., is Arch.

Chicago, Ill.—(Official)—The Western Plumbing Supply Co., 117 North Desplaines St., advises us that work will begin about July 1 on the construction of a two-story, 120x125-ft. warehouse and office building to cost $60,000. Noted Apr. 29.

Chicago, Ill.—The Knight Light Co. will build a six-story factory at 341 West Chicago Ave., to cost $100,000. C. A. Eckstorm, 720 North Franklin St., is Arch.

Milwaukee, Wis.—The Ford Automobile Co., Detroit, Mich., plans the construction of a $500,000 automobile factory.

✚Racine, Wis.—CHRIS. BONGARD, 935 La Salle St., has been awarded the contract for the construction of a three-story, 30x62-ft. warehouse, for A. Matson, 1747 Northwestern Ave., to cost approximately $25,000. C. H. Tharinger, 2324 State St., Milwaukee, Wis., is Arch. Noted Nov. 19.

Davenport, Iowa—Clausen & Kruse, Arch., advises us that work will start about June 1 on the construction of a five-story, 93x177-ft. reinforced-concrete factory for the Crescent Macaroni & Cracker Co. The estimated cost is $80,000. Noted Apr. 29.

Ft. Madison, Iowa—The Perfection Tire & Rubber Co., Chicago, Ill., will build a factory to cost about $90,000.

Duluth, Minn.—(Official)—W. T. Bray, Arch., advises us that construction will soon begin on a three-story, 50x115-ft. reinforced-concrete garage for W. M. Prindler & Co., to cost $23,000. Noted Apr. 29.

✚Mankato, Minn.—The Mankato Daily Free Press, care Frank Hunt, Free Press Bldg., has awarded the contract to J. B. NELSON CONSTRUCTION CO., 503 Belgrade St., for the construction of a four-story, 57x65-ft. printing building. H. C. Gerloch, I. O. O. F. Bldg., is Arch.

Mankato, Minn.—The Mayer Bros. Co. will build an 80x400-ft., reinforced-concrete factory. The Kenwood Bridge Co., 38 South Dearborn St., Chicago, Ill., is Arch.

Minneapolis, Minn.—(Official)—Bertrand & Chamberlin, 616 Northwest Bank Bldg., advises us that construction will soon begin on the five-story, 100x209-ft. reinforced-concrete warehouse for the W. L. Harris Realty Co., to cost $200,000. Noted Apr. 29.

Minneapolis, Minn.—(Official)—The Wheeling Corrugating Co., Wheeling, W. Va., advises us that it will not build a plant at University and Washington Ave. this year. Noted Apr. 22.

Lincoln, Neb.—(Official)—We are advised that the proposed construction of a six-story, 62x86-ft. reinforced-concrete storage warehouse for the Carter Transfer Co., has been indefinitely postponed. Jesse B. Miller, 324 Little Bldg., is Arch. The estimated cost is $50,000. Noted Apr. 29.

✚Omaha, Neb.—The Gordon Fireproof Warehouse & Van Co., 219 North 11th St., has awarded the contract to the GRANT-PARSONS CONSTRUCTION CO., 600 Barker Bank Bldg., for the construction of a one-story, 120x136-ft. warehouse, to cost $13,000.

Independence, Mo.—The Utah Mormon Church, S. Bennow, Pres., will build a one-story, 60x80-ft., printing and publishing plant, to cost $15,000. J. Oliver Hogg, 946 New York Life Bldg., Kansas City, Mo., is Arch.

St. Louis, Mo.—The Laclede Gas Light Co. will build a benzol plant on Catalan St., to cost $75,000.

St. Louis, Mo.—The Linde Air Products Co., 42nd St. Bldg., New York, N. Y., will construct a $100,000 plant on Forest Park Blvd.

St. Louis, Mo.—The George A. Helein Cooperage Co., 14th St., will build a six-story factory on 15th St.

Spokane, Wash.—(Official)—W. P. Fuller & Co. advises us that it has not been definitely decided when construction will begin on its warehouse. Noted Apr. 22.

Portland, Ore.—The Marshall-Wells Hardware Co. will construct four additional stories to its present warehouse at 14th, 15th, Kearney and Lovejoy St. Estimated cost, $70,000. E. B. McNaughton is Arch.

✚Fresno, Calif.—The contract for the construction of a garage at Mono and K St., for J. C. Phelan, has been awarded to TREWITT & SHIELDS, at $41,000.

Melfort, Sask.—The Canada West Grain Co. will construct four grain elevators with a capacity of 30,000 bu. each.

Montreal, Que.—Wilson, Paterson & Co., 42 Sacrament St., will rebuild its warehouse. The estimated cost is $75,000.

FEDERAL GOVERNMENT WORK

Building—Ft. Williams, Maine—(Cape Cottage post office)—Bids will be received until 1:30 p.m., May 17, by the Constructing Quartermaster, Ft. Williams, for constructing addition to the post exchange and gymnasium at Ft. McKinley, Maine.

★Scow and Dredge—New York, N. Y.—Bids will be received until noon, May 28, by Col. W. M. Black, U. S. Engineer Office, Army Bldg., New York, for constructing a drill scow and dredge, "General Gillespie."

Remodeling Post Office—Reading, Penn.—Bids will be received until 3 p.m., June 8, by James A. Wetmore, Superv. Arch., Treasury Dept., Washington, D. C., for making extensions and remodeling the U. S. post office at Reading.

✚Storehouses—Indian Head, Md.—The contract has been awarded to JAMES N. NOLAN CONSTRUCTION CO., Munsey Bldg., Washington, D. C., at $3772, for constructing two cotton storehouses at the Naval Torpedo Station, Indian Head. Bids were opened Apr. 17. Noted Apr. 1.

Grading—Washington, D. C.—Bids were received Apr. 28 by the Commissioners of the District of Columbia for grading the south approach to the Anacostia Bridge as follows: William F. Cush, $0.48 per cu.yd.; George Hyman, $0.39; and Harper & Voigt, $0.55.

Road Repair—Washington, D. C.—Bids will be received until 11 a.m., May 15, by H. R. Stanford, Ch. Bureau of Yards and Docks, Navy Dept., Washington, D. C., for repair of roads at the U. S. Naval Medical School, Washington.

★Sewers—Washington, D. C.—Bids will be received until 2 p.m., May 12, by the District Commissioners, District Bldg., for constructing trunk sewers. Information may be had on application to Chief Clerk, Engineering Dept., District Bldg.

✚Sewers—Washington, D. C.—The contract for the construction of sewers in the District of Columbia has been awarded to GEORGE HYMAN, Washington, as follows: Ordinary excavation, $0,30; concrete masonry "E", $8.75; vitrified brick masonry, $20; sewer brick masonry, $13. Noted Apr. 15 and 29.

Building—Front Royal, Va.—Bids will be received until 2 p.m., May 24, by the Constructing Quartermaster, Remount Depot, Front Royal, for constructing a non commissioned officers building, civilian employees quarters, ward building, stables, sheds and an oil house.

✚Floating Crane—Norfolk, Va.—The contract has been awarded to the WELLMAN-SEAVER-MORGAN CO., Cleveland, Ohio, at $350,000, for a floating crane at the Norfolk Navy Yard. Noted Feb. 11 and Mar. 4.

Shipbuilding Cranes—Norfolk, Va.—Plans and specifications are in course of preparation at the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for furnishing two shipbuilding cranes for the Norfolk Navy Yard. These cranes are under the same specifications as the five purchased in December, 1914, from the McMyler Interstate Engineering Co., at a cost of $47,500.

★Water Turbine—Wheeling, W. Va.—Bids will be received until 11 a.m., June 2, by Maj. T. H. Jackson, U. S. Engineer Office, Wheeling, for water turbines, air compressors, valves, jacks, and gate winches for Dams Nos. 15 and 19, Ohio River.

Post Office—Pensacola, Fla.—Bids were received as follows Apr. 29 by the Acting Supervising Architect, Treasury Dept., Washington, D. C., for repairs and betterments at the Pensacola post office: Grohne Decorating Co., Joliet, Ill., $24,000; B. A. Davis, Pensacola, Fla., $23,898; Jett-Muths Construction Co., Mobile, Ala., $27,527; C. H. Turner Co., Pensacola, Fla., $23,299; Algernon Blair, Montgomery, Ala., $23,813; S. F. Fulghum & Co., Pensacola, Fla., $25,787. Noted Mar. 25.

★Booms, Masts, Etc.—Memphis, Tenn.—Bids will be received until 11 a.m., May 21, by Maj. E. M. Markham, Mississippi River Commission, Custom House, Memphis, for booms, masts, stiff legs, hoisting engines, concrete mixers and clam shell buckets.

★Levee Work—Memphis, Tenn.—Bids will be received until 11 a.m., May 26, by Maj. E. M. Markham, Mississippi River Commission, 1st and 2d District, Custom House, Memphis, for constructing about 4,500,000 cu.yd. of levee work in the Upper and Lower St. Francis, and White River Levee Districts.

✚★Cement—Louisville, Ky.—The contract for furnishing American portland cement for dam No. 43, Ohio River, has been awarded to the COSMOS PORTLAND CEMENT CO., Louisville, at $55,080. Noted Mar. 25.

★Steel Lock Gates—Cincinnati, Ohio—Bids were received Apr. 7 for gates at Dam No. 29, Ohio River as follows: Union Foundry & Machine Co., West Carson St., Pittsburgh, Penn., $27,421; Whitehead & Kales Iron Works Beecher Ave. and M. C. R.R., Detroit, Mich., $39,669; **J. & J. B. Milholland Co., 714** Fifth Ave., Pittsburgh, Penn., $27,121; C. A. Turner, Inc., Pittsburgh, Penn., $26,313; Independent Bridge Co., Beaver Ave., Pittsburgh, Penn., $26,491; Penn Bridge Co., Beaver Falls, Penn., $28,888; Alliance Structural Co., Alliance, Ohio, $26,830; Steacy-Schmidt Mfg. Co., York, Penn., $29,377; Milwaukee Bridge Co., 1400 34th St., Milwaukee, Wis., $33,232; American Bridge Co., Union Trust Bldg., Cincinnati, Ohio, $27,537; Lupfer & Remick, 592 Ellicott Sq. Buffalo, N. Y., $30,282. Noted Apr. 8.

★Earth Excavation—Detroit, Mich.—Bids will be received until noon, June 15, by Lieut.-Col. Mason M. Patrick, Federal Bldg., Detroit, for excavation of earth and rock, U. S. Power plant tail race, St. Marys River, Mich.

River Widening—Milwaukee, Wis.—See item under "Miscellaneous."

Post Office—Ardmore, Okla.—Bids were received as follows, Apr. 28 for the construction of a post office at Ardmore, (a) using light-colored Oklahoma limestone for exterior stonework except where granite is required, (c) using sandstone except where granite is required: Kreipke-Schafer Construction Co., El Reno, Okla., a) $127,200; (b) $127,200; Gallahan-Mandl Co., Chicago, Ill., (a) $137,577, (b) $137,577, (c) $132,577; George W. Stiles Construction Co., Chicago, Ill., (b) $120,200; Thomas W. Cissel, Wooster, Ohio, (b) $129,000, (c) $137,000; M. Yeager & Sons, Danville, Ill., (a) $123,968, (b) $121,968, (c) $126,968; Barnes Bros., Logansport, Ind., (b) $129,500; W. D. Lovell, Minneapolis, Minn., (b) $135,400; Dieter & Wenzel Construction Co., Wichita, Kan., (a) $121,500, (b) $121,500; George A. Shaul, Seneca, Kan., (b) $124,512; King Lumber Co., Charlottesville, Va., (a) $138,000, (b) $128,000, (c) $138,000; Kremer & Voirol Construction Co., St. Louis, Mo., (b) $132,829; Campbell Building Co., Salt Lake City, Utah., (a) $127,500, (b) $133,000; Hiram Lloyd Building & Construction Co., St. Louis, Mo., (b) $126,576; W. H. Fissell & Co., New York, N. Y., (b) $122,000; (c) $127,000; Frank H. Latimer & Co., Kansas City, Mo., (b) $140,241; Potters Lumber Co., East Liverpool, Ohio, (a) $130,495, (b) $129,495, (c) $133,000. Noted Mar. 25.

Torpedo Storehouse — Keyport, Wash.—Bids will be received until 11 a.m., May 29, by H. R. Stanford, Ch. Bureau of Yards and Docks, Navy Dept., Washington, D. C., for constructing a fireproof torpedo storehouse at the Naval Torpedo station, Keyport.

✚Post Office—Pendleton, Ore.—The contract for the construction of post office at Pendleton has been awarded to JAMES S. WINTERS, Couch Bldg., Portland, Ore., at $99,537. Noted Jan. 21 and Apr. 1.

Vessel—San Francisco, Calif.—Bids were received as follows Apr. 27, by the Light House Bureau, Department of Commerce, Washington, D. C., for the construction of one 1750-ton light house vessel, the "Cedar": Gas Engine & Power Co. and Charles L. Seabury Co., Morris Heights, N. Y., $276,000, alternate, $274,000. Seattle Construction & Dry Dock Co., Seattle, Wash., $296,500, alternates, $293,560, $290,000, $287,700. Navy Yard, Portsmouth, N. H., estimate, $203,777, machinery, $76,517, Navy Yard not to be bound by any provisions as to liquidated damages, etc. Craig Ship Building Co., Long Beach, Calif., $234,000, alternates, $231,200; Mare Island Navy Yard, (estimate), $249,386, alternate, $246,228; Bremerton (Puget Sound) Navy Yard, $248,579, alternate, $245,216; Anderson Steamboat Co., Seattle, Wash., $258,300, alternate, $251,760; Union Iron Works, San Francisco, Calif., $285,250, alternate, $282,070; United Engineering Works, San Francisco, Calif., $279,538. Noted Mar. 25.

Electric-Light Fixtures—Pearl Harbor, Hawaii—Bids will be received until 11 a.m., June 5, by H. R. Stanford, Ch. Bureau of Yards and Docks, Navy Dept., Washington, D. C., for electric-light fixtures for the naval hospital, Pearl Harbor.

MISCELLANEOUS

Dry Dock and Repair Plant—Portland, Maine—A large dry dock and ship repair plant is proposed by the Chamber of Commerce.

Riprap—Boston, Mass.—Bids will be received until May 12 by the Harbor and Land Commissioners for placing 800 tons of riprap in Hadley and 1350 tons in Hatfield. William F. Williams, State House, is Ch. Engr.

✚Grand Stand—Boston, Mass.—According to press reports, the contract for constructing the grand stand for the Boston National League Baseball Club has been awarded to the JAMES E. GAFFNEY CONTRACTING CO., 961 Commonwealth Ave. Noted Feb. 18.

Ducts—Boston, Mass.—Bids will be received until May 11 by the Fire Department, for laying about 3000 lin.ft. of ducts. John Grady is Comr.

★Concrete Reservoir—Salem, Mass.—Bids will be received until 10 a.m., May 17, by P. J. Kelley, Dir. of Pub. Wks., for constructing a covered concrete reservoir with a capacity of 10,000,000 gal.

Harbor Improvements—Providence, R. I. — According to press reports, the State Harbor Commission plans to develop and improve the harbor; also the entrance to the Seekonk River. O. Perry Searle is Engr.

Dock Walls—Albany, N. Y.—It is reported that the City Council considers issuing about $50,000 in bonds for building dock walls along the river front and other river improvements.

★Bridges—Canton, N. Y.—(Official)—Bids will be received until 2 p.m., May 28, by the Town Board of the Town of Canton for the construction of the Morley Bridge over the Grasse River at Morley, and for the construction of a bridge over Granis Brook, on the Canton-Pierrepont Rd. H. M. Barber is Town Clk. A. H. Williams is Town Supt.

Athletic Field—Clinton, N. Y.—The Trustees of Hamilton College are considering the building of an athletic field to cost about $25,000. Joseph Rudd, Clinton, is Chn. of the Com. in charge.

Piers—New York, N. Y.—(Borough of Brooklyn)—According to press report the Department of Docks and Ferries will soon call for bids for the construction of three large piers in South Brooklyn. The total cost is estimated at $1,300,000. R. A. C. Smith is Comr.

Plaza—New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 3 p.m., May 13, by Cabot Ward, Pres., Park Bd., Municipal Bldg., for the reconstruction of the Prospect Park Plaza at Ninth and 15th St.

Trailers—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by J. T. Fetherston, Comr., Dept. of Street Cleaning, Municipal Bldg., for furnishing and delivering 11 trailers.

✚Lumber—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for furnishing and delivering 1,575,455 cu.ft. of lumber has been awarded by the Department of Docks and Ferries to the HIRSCH LUMBER CO., 26 Beaver St., New York, at $23.93 per 1000 ft. b.m. Noted Apr. 29.

Lumber—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by Cabot Ward, Pres., Park Bd., Municipal Bldg., until 3 p.m., May 13, for furnishing and delivering lumber.

✚Track Equipment—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for furnishing equipment for the westerly tracks of the upper deck of the Manhattan Bridge has been awarded to the VULCAN RAIL & CONSTRUCTION CO., 35 Meserole St. (Borough of Brooklyn), at $148,393. Noted Apr. 8 and 22.

Motor Trucks—New York, N. Y.—(Borough of Manhattan)—(Official)—The following are the bids received for furnishing and delivering 12 motor driven city service hook and ladder trucks: Seagrave Co., $56,160; Robinson Fire Apparatus Mfg. Co., $64,800; International Motor Co., West End Ave. and 64th St., $52,152; James Boyd & Bro. Inc., $57,175; American La France Fire Engine Co., $53,328. Noted Apr. 22.

Dredging—Atlantic City, N. J.—Bids will be received until May 13 by Board of Commissioners for dredging portions of Clam Creek and Delta Basin. The work calls for dredging about 103,800 cu.yd. J. W. Hackney is City Engr.

Motor Fire Apparatus—Camden, N. J.—Bids will be received by William D. Brown, City Clk., until May 17 for furnishing aërial trucks, city service trucks, pumping engines and combination wagons to the Fire Department. Harry R. Read is Chn. of the Fire Com. Noted Feb. 4 and 18.

Fire Station—Edgewater, N. J.—The citizens on Apr. 27 voted to issue $38,000 in bonds for a fire-station.

✚Boardwalk—Sea Isle City, N. J.—It is reported that the contract for building 4200 lin.ft. of boardwalk along the beach front has been awarded to CLARENCE PFIEFFER, at $12,690.

Wall—Singac, N. J.—(Official)—Bids will be received until 2 p.m., May 13, by the Board of Commissioners of Jersey City for constructing a retaining wall and placing back fill at side of conduit at Singac.

Fire Station—Trenton, N. J.—The White Horse Fire Co. will build a new fire station in the White Horse section.

Police and Fire Signaling Apparatus—Scranton, Penn.—All bids received for installing fire alarm and police signaling apparatus in the Central City fire limits have been rejected. F. K. Derby is Dir. of Pub. Safety. Noted Apr. 15.

✚Shafts—Fairmont, Va.—The Consolidated Coal Co. has awarded a contract to the DRAVO CONTRACTING CO., Pittsburgh, Penn., for a shaft at the Carolina mine on Helena run, near Farmington, and to H. F. STARK, Greensburg, Penn., for shaft at Ida May mines. Each shaft will cost about $50,000, and will be 500 ft. deep, lined with concrete.

✚Wall—Richmond, Va.—The contract for constructing a concrete wall on Shockee Creek, below Second and Fifth St. has been awarded to L. HANKINS, at $54,671. Charles E. Bolling is City Engr.

Drainage—Arcadia, Fla.—The Arcadia Drainage District, embracing 5500 acres of land, has been formed. Surveys have been made by C. L. Cravens, Engr., Parker Bldg., Arcadia, and a report will be made to the Board of Commissioners of De Sota County.

Drainage—Bartow, Fla.—Bids will be received until June 1 by the Peace Creek Drainage District, 77 Main St., for constructing about 142 miles of drainage ditches. C. G. Elliott, McLachlen Bldg., Washington, D. C., is Ch. Engr. Noted Feb. 25.

Sheds—Jacksonville, Fla.—According to press reports, bids will be received by Capt. F. W. Bruce, Engr., Port Commission for the construction of sheds on the docks. The sheds will be 73 ft. wide and 1000 ft. long.

Drainage—Leesburg, Fla.—It is reported that Hiram McElroy, Tampa, is making surveys for the purpose of draining 7000 acres of swamp land in Lake, Pasco, Sumter and Hernando Counties.

Drainage—Taft, Fla.—R. H. Ludlum, Kissimmee, Fla., has made final surveys for the proposed drainage work contemplated by the Taft Drainage Co. J. F. Harrington is Secy.

Sea Wall—West Palm Beach, Fla.—Bids will be received by A. N. Lopez, City Clk., until noon, May 7, for the construction of a sea wall. The work requires about 1350 cu.yd. of reinforced concrete and 99,000 cu.yd. of fill. The J. B. McCrary Co., Atlanta, Ga., is Engr.

Levee Work—Clarksdale, Miss.—Bids will be received until May 12 by the Levee Board for laying about 138,000 sq.yd. of concrete 3 in. thick, on the river side slope of the levee. T. G. Dabney, Clarksdale, is Ch. Engr.

✚Levee Work—Clarksdale, Miss.—It is reported that contracts for levee enlargement work in Tunica County have been awarded to MARTIN JENNINGS & BROS.; ROACH STANSELL & LOWRENCE; and BONDURANT, CLARKE & CO. The work involves about 9,000,000 cu.yd.

Drainage—Plain Dealing, La.—The following are the bids received for drainage in Postem and Phelps Lake, Bossier Parish. The work requires the excavation of about 72,000 cu.yd. of sand and clay; Hall Nattin, Shreveport, 17.4c. per cu.yd.: J. M. Montgomery, Shreveport, 18.7c.; George Epple, Shreveport, 22.25c.; Nergman Gregory, Texarkana, Ark., 22.5c. F. B. Grevenberg Jr., Continental Bank Bldg., Shreveport, is Engr. Noted Apr. 22.

✚Drainage—Union City, Tenn.—The contract for constructing about 1,564,300 cu.yd. levee work with floating dredge, about 631,700 cu.yd. of ditch work, three reinforced-concrete sluiceways, also clearing about 500 acres, as right-of-way, has been awarded to the SWAMP DREDGE CO., Tupelo, Miss., at $208,000. Noted Apr. 1.

Motor Fire Apparatus—Bellaire, Ohio—The City Council has decided to call an election to vote on the question of issuing $16,500 in bonds for the purchase of five trucks for the fire department. G. N. Alther is City Clk.

Sprinklers—Cincinnati, Ohio—Bids will be received until noon, May 12, by Ernest Von Vargen, City Pur. Agt., City Hall, for furnishing four street sprinklers.

Retaining Walls and River Improvements—Tiffin, Ohio—The lowest bid submitted for deepening, widening and straightening the Sandusky River was that of Lewis Jones, Fostoria, at $59,767. Noted Mar. 25.

✚Dredging—Hartford City, Ind.—It is reported that the contract for dredging Lick Creek has been awarded to CHARLES CLAMME, Hartford City, at $27,095. Noted Mar. 25.

Flood Protection—Indianapolis, Ind.—The lowest bid submitted for flood protection along the west bank of the White River was that of the Cleary White Construction Co., Chicago, Ill., at $458,000. B. J. T. Jeup is City Engr. Noted Mar. 18.

Dredging—Princeton, Ind.—The Commissioners of Gibson County contemplate dredging and straightening the channel of the Patoka River. W. T. Roberts is County Audr.

Building Supplies—Dowagiac, Mich.—(Official)—The Byers Bros. Construction Co., Kalamazoo, Mich., will soon purchase the following supplies to be used in the construction of the buildings for the Rudy Furnace Co.: 200,000 ft. yellow pine lumber; 2000 bbl. cement in bags; 300,000 common brick; 20,000 5x8x12-in. back up tile; 125 tons structural steel; small quantity reinforcing steel; 10,000 sq.ft. steel sash; ¼-in. wire glass for sash; metal sash putty; electrical supplies; fire doors; sheet metal; millwork and trim; paint; four tons cement floor hardener.

Motor Fire Apparatus, Etc.—Champaign, Ill.—The City has voted to issue $22,000 in bonds for the purchase of a gasoline pump, an aërial truck and additional hose for the fire department; also an auto patrol for the police department. Noted Apr. 8.

✚Steamer—Manitowoc, Wis.—The contract for the construction of a freight steamer to cost about $300,000 for the Goodrich Transit Co. has been awarded to the MANITOWOC SHIPBUILDING CO.

River Widening—Milwaukee, Wis.—Work will be commenced next fall on the widening of the Milwaukee River, in connection with new harbor work. It will include dredging an area of 56,200 sq.ft., and building 600 ft. of pile revetment with reinforced-concrete superstructure. The dredging will be let by the U. S. Government, and the revetment by the city. George Stall is City Engr.

Dredging—Estherville, Iowa—Bids will be received until May 15 by the Fifth Ward Drainage District No. 1 for dredging about 25 miles of gravity drainage canals. The work involves about 300,000 cu.yd. Ellis Hoffpaur is Pres.

Drainage Bonds—Estherville, Iowa—Bids will be received by the Fifth Ward Drainage District No. 1, until May 15, for the purchase of $38,000 in drainage bonds.

✚Ditch—Foley, Minn.—The contract for the construction of Ditch No. 13 has been awarded to TALBERG & CHEELEY, at 13c. per cu.yd. Noted Apr. 8.

✚Ditch—Slayton, Minn.—The contract for the construction of judicial ditch No. 6 has been awarded to JOHN CHRISTENSON & CO., Lakefield, at $14,895. Noted Apr. 15.

Drainage—Donna, Tex.—Bids will be received until May 17 by George B. Meriwether, Chn., Drainage District No. 1, for constructing ditch and levee and improving the water course known as Cibolo. The work involves about 90,000 cu.yd. of dirt work. C. S. Clark, Donna, is Engr. of the Dist.

Pier—Galveston, Tex.—According to press reports bids will be received until May 10 by the Galveston Wharf Co. for the construction of a pier to cost about $300,000. Ford, Bacon & Davis, New Orleans, La , is Engr.

Levee—Waxahachie, Tex.—Bids will be received until May 10 by T. H. Harbin, Waxahachie, for constructing a levee on Chambers Creek.

Dam—Ogden, Utah—According to press reports, bids will soon be received by the Weber & Davies Counties Canal Co., for the construction of a dam to cost about $150,000. J. C. Nye is Secy.

Ferry Improvements—Seattle, Wash.—Bids will be received by C. E. Remsberg, Secy., Port Comn., until 1:30 p.m., May 7, for the reconstruction of the West Seattle ferry landing. Noted Feb. 11.

✚Concrete Work—Spokane, Wash.—The contract for concrete work at stock yards of the Union Stock Yards Co. is reported to have been awarded to C. M. PAYNE, Spokane, at about $15,000.

✚Dike—Willapa, Wash.—The contract for constructing a dike in the Palix River section of Willapa Harbor has been awarded to the COWLITZ RIVER BRIDGE CO., Yeon Bldg., Portland, Ore., at about $60,000.

✚Fill—Modesto, Calif.—The Trustees of the Modesto Irrigation District have awarded a contract for earth fills to the HEALY-TIBBITTS CONSTRUCTION CO., San Francisco, Calif., at $71,065.

Coal Bunkers—Oakland, Calif.—The Western Fuel Co., San Francisco, will erect coal bunkers on the Oakland estuary at an estimated cost of $150,000. D. C. Norcross, 430 California St., San Francisco, is Secy.

Pier—San Diego, Calif.—Press reports state that a 400-ft. ocean pier will be built at La Jolla for the use of the state biological station. G. F. McEwen is Station Hydrographer.

✚Cement—Montreal, Que.—According to press reports the Dominion Government has awarded the CANADA CEMENT CO. a contract for furnishing 2,500,000 bbl. of cement. The cement will be used in the Welland Canal extensions.

Dam Protection—Valleyfield, Que.—Bids will be received until May 7 by the Department of Railways and Canals, Ottawa, Ont., for protection work to the Valleyfield government dam. J. W. Pugsley is Secy.

Drainage—Toronto, Ont.—According to press reports the plans for drainage system in North Toronto, including sewage disposal work, have been abandoned for the present. The estimated cost of this work is $4,160,000.

✚Tunnel Work—Glacier, B. C.—The contract for lining about five miles of the Canadian Pacific R.R. tunnel has been awarded to the BATES & ROGERS CONSTRUCTION CO., Vancouver, at about $300,000.

Tramway—Revelstoke, B. C.—The Lanark Mining Co. will erect a 7000-ft. tramway at its mine to cost $12,000. W. B. Dornberg and L. M. Dornberg, Spokane, are interested.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Ashburnham, Mass.—The Ashburnham House dormitory for boys at Cushing Academy will be rebuilt at a cost of about $50,000.

Boston, Mass.—The Chapman Real Estate Trust Co. has purchased the building at 69 Beacon St. and will demolish same and construct a four-story, brick and stone apartment house to cost $75,000.

✚Boston, Mass.—The contract for the alterations to the building at 14 Winter St. for L. D. Towle, 15 State St., has been awarded to GEORGE B. H. MACOMBER, 44 Bromfield St. The estimated cost is $50,000. A. H. Bowditch, 44 Bromfield St., is Arch.

✚Springfield, Mass.—The contract for the construction of the Third National Bank Bldg., Main St. and Harrison Ave., has been awarded to HOGGSON BROS., 7 East 44th St. Starrett & Van Vleck, Everett Bldg., New York, N. Y., and E. Hammett Seabury, Springfield, Mass., are Archs.

✚Watertown, Mass.—Charles M. Abbott, Chn. of the Bldg. Comn., has awarded the contract for the construction of a three-story, 75x110-ft. school to the WILLIAM CRANE CO., Vassar St., Cambridge, Mass. The estimated cost is $75,000. Hoyt & Bixby, 8 Beacon St., Boston, Mass., is Arch.

Worcester, Mass.—Dykeman & Murray, Arch., 27 School St., Boston, Mass., has prepared plans for the construction of a six-story, 100x106-ft., brick and terra cotta apartment building for the Central City Realty Co. The estimated cost is $300,000.

Providence, R. I.—The State Board of Control and Supply, W. A. Schofield, Chn., contemplates the following expenditures: $201,500 for the construction of a dormitory; $135,000 for an addition to the present dormitory; $60,000 for a central heating plant; $74,000 for a three-story dormitory, $40,000 for a dormitory, $60,000 for a lighting and heating plant; all at the State buildings at Cranston, R. I., and $120,000 for a home for tuberculosis patients at Wallum Lake, R. I.

Bridgeport, Conn.—The Bridgeport Country Club has voted to appropriate $75,000 for a new clubhouse and equipment. Frank T. Staples, D. C. Warner and E. H. Havens are members of the Bldg. Com.

Albany, N. Y.—(Official)—Lewis F. Pilcher, State Arch., Capitol, Albany, informs us that the contract for the restoration of the State House has not been advertised, and cannot say at this time when bids will be received. Noted Apr. 1.

New York, N. Y.—(Borough of Brooklyn)—Louis F. Seitz, 1111 Dean St., will build a six-story, 83x150-ft. apartment hotel on Bedford Ave. and Dean St., to cost about $175,000. Montrose W. Morris, 82 Wall St., New York, N. Y., is Arch.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by Shampan & Shampan, 772 Broadway, for the construction of a five-story, 100x121-ft. apartment house on Linden Ave., for F. & W. Baker.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 3 p.m., May 13, by the Park Board, Department of Parks, Municipal Bldg., New York City, for the construction of an animal hospital in the Bronx Zoological Park. Cabot Ward is Pres. of Park Comn.

✚New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for the construction and alterations to the medical staff house and nurses' home at the Willard Parker Hospital, foot of East 16th St., has been awarded to HARBY ABROMS & MELIUS, 30 East 42d St., New York, at $153,900. Noted Apr. 8 and 29.

New York, N. Y.—(Borough of Manhattan)—The Y. W. C. A. has filed plans by Parish & Schroeder, 12 West 31st St., for its twelve-story, 75x100-ft. nurses' home on 45th St., to cost $240,000.

New York, N. Y.—(Borough of Manhattan)—The Fogliasso Clement Building Co., 197 Bleeker St., will construct an eight-story, 44x97-ft. apartment house on West Washington Pl., to cost about $75,000.

New York, N. Y.—(Borough of Manhattan) — Edgar A. Levy, 505 Fifth Ave., has purchased a site at Park Ave. and 81st St., on which he will construct a 12-story apartment house, to cost $500,000.

New York, N. Y.—(Borough of Queens)—Work will soon be started on the three-story clubhouse at Flushing Ave. between Willett St. and Hillside Ave., Jamaica, for the Jamaica Lodge No. 988, Loyal Order of Moose. Hans Lieban, Post Office Bldg., Jamaica, is Arch. T. F. Archer is Chn. of Bldg. Com.

New York, N. Y.—(Borough of Queens)—Plans have been prepared by Albert Thompson, Arch., 1133 Broadway, New York, for the construction of a six-story office building at

Van Alst and Hunters Point Ave., Long Island City, for M. J. Degnon of the Degnon Contracting Co., 30 East 42d St., New York. Noted Feb. 11.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids were received by C. B. J. Snyder, Supt. Dept. of Education, Park Ave. and 59th St., New York, for the construction of Public School No. 8 at Lindenwood Ave. and School St., Great Kills, as follows: W. D. Moore, $79,970; T. A. Clarke Co., 122 Livingston St., Brooklyn, $72,250; Mitchell-Farrell-Adrian, Inc., 4 Court Sq., Brooklyn, $79,812; J. Kresse Co., 1133 Broadway, New York, $82,850; H. C. Stowe Construction Co., 221 Greenpoint Ave., Brooklyn, $78,650. Noted Apr. 22.

Potsdam, N. Y.—Governor Whitman has signed a bill appropriating $300,000 for an addition to the Potsdam Normal School, $125,000 to be expended this year.

✚Rockville Center, N. Y.—The Board of Education has awarded the contract for the construction of a two-story school to MOSES R. CORNWELL. The estimated cost is $40,000. Blanchard & Barnes, 15 East 40th St., New York, N. Y., is Arch.

Utica, N. Y.—(Official)—Gonge & Ames, Arch., 70 Genesee St., informs us that a three weeks extension of time has been granted to contractors who wish to submit bids for the construction of a school and annex. Noted Mar. 18, Feb. 4 and Apr. 15.

Arlington, N. J.—St. Stephen's Church has had plans prepared for a new parochial school to be erected at Midland Ave. and Chestnut St. The structure is estimated to cost $70,000. Rev. John A. Westman is pastor.

Kearney, N. J.—St. Cecelia's Church, Hoyt and Kearney Ave., will construct a building estimated to cost $60,000. Joseph Kennedy, 6 North Fourth St., Harrison, N. J., is Arch.

Little Falls, N. J.—The Supreme Court has sustained a decision of the Board of Public Utility Commissioners ordering the Erie R.R. to build a new station at Little Falls.

Newark, N. J.—The Church of the Sacred Heart will build an addition to its church and school building on South Orange Ave., to cost about $40,000.

Newark, N. J.—The Board of Trustees of the Essex County Parental School will receive bids until 4 p.m., May 11, for the erection of a school building on Sussex Ave. John H. Ely and Wilson C. Ely, Newark, are Archs. Lathrop Anderson is Pres. of Bd.

Newark, N. J.—Nathan Harris, Arch., is preparing plans for a four-story office and loft building to be erected by the Peddie Estate at Halsey and Market St. The structure will be of brick, steel and limestone, and is estimated to cost $75,000.

Newark, N. J.—The Common Council passed a resolution providing for the construction of a one-story market on the site of the present City Market. The cost is not to exceed $636,000. This figure includes the cost of razing the old structure and putting the property in condition. Hooper & Co. is Arch.

Newark, N. J.—The Essex County Park Commission has approved plans prepared for the construction of an administration building in Branch Brook Park. Estimated cost, $100,000. The Legislature has approved a bond issue for this purpose.

Union Hill, N. J.—(Weehawken post office)—St. John's Evangelical Church will build a $40,000 building. Luther Burke is Rector.

Braddock, Penn.—St. Mary & St. Paul church will build a $60,000 church. William Ward Williams, Magee Bldg., Pittsburgh, Penn., is Arch.

Lancaster, Penn.—(Official)—The Lancaster School District will decide at its meeting in July whether a high school for boys shall be constructed. R. M. Bolennis is Secy. of the School District. Noted Apr. 29.

Narberth, Penn.—John T. Caldwell will build an apartment house, estimated to cost $50,000. Andrew C. Borzner and Maximilian Jahnke, Philadelphia, Penn., are Archs.

Philadelphia, Penn.—The City Club contemplates the construction of a clubhouse at 313 South Broad St., to cost about $250,000. William Alexander, Real Estate Trust Bldg., is Secy.

✚Pittsburgh, Penn.—(Official)—The THOMPSON-STARRETT CO., Second National Bank Bldg., has been awarded the contract for the construction of the Schenley High School, Grant Blvd. and Center Ave., at $623,000. Edward Stotz, Monongahela Bank Bldg., is Arch. Other bidders were: James L. Stuart, $640,500; George A. Fuller Co., $643,000, George Hogg Co., $647,287; Thomas Reilly Co., $628,117. C. L. Wooldridge is Supt. of Bldgs. Noted Oct. 22, Nov. 19, Apr. 1 and 22.

✚Reading, Penn.—J. L. Huge, Lancaster, Penn., has awarded the contract to CHARLES H. SCHLEGAL, Mt. Penn, Penn., for the construction of a five-story building at 750 Penn St., to cost $40,000. Harry Maurer, Bauer Bldg., is Arch.

Reading, Penn.—Edward Z. Scholl, Arch., is preparing plans for the construction of a motion-picture theater at 533 Penn St. C. X. Mantis is Mgr.

South Bethlehem, Penn.—Bids will be received by Robert Yost, Secy., of the School District, until May 27, for the erection of a high school, to cost $175,000. A. W. Leh, Post Office Bldg., is Arch. Noted Feb. 25 and Mar. 18.

Wilmington, Del.—Wallace E. Hance, Arch., Wilmington, has been retained by the School Board to prepare plans for the construction of a high school. The estimated cost is $150,000.

Baltimore, Md.—Otto G. Simonson, Arch., Maryland Casualty Tower, is preparing plans for the construction of a ten-story hotel, on Light St., for the Southern Hotel Co. Estimated cost, $1,000,000. Addison E. Mullikin, is Pres.

Baltimore, Md.—William A. Foreman & Co., Arch., is preparing plans for the construction of a building for Edward A. Strauff, Baltimore. Estimated cost, $60,000.

Baltimore, Md.—Plans have been prepared by Ellicott, & Emmart, Arch., 1102 Union Trust Bldg., for remodeling the Woodland Hall, on Garrison Ave., into an apartment house, for H. D. Eastman. Estimated cost, $40,000.

✚Baltimore, Md.—J. HENRY MILLER, Eutaw and Franklin St., Baltimore, has been awarded the contract for the construction of a motion picture theater at North Ave. near Charles St. for the Northern Amusement Co., Title Bldg. The estimated cost is $60,000. Noted Feb. 11 and Apr. 1.

Washington, D. C.—Bids will be received about May 15 for the construction of a seven-story, triangular shaped apartment house at 16th St., N. W., and New Hampshire Ave. for James O'Donnell, Ninth and F St., N. W. Estimated cost, $250,000. Noted Mar. 11.

Washington, D. C.—Plans are being revised by A. P. Clark, Jr., Arch., 816 14th St. N. W., for remodeling the five-story building of the National Savings Trust Co., 15th and H St. Estimated cost, $50,000. William Hoover is Pres.

Alexandria, Va.—W. B. Wood, Arch., 816 Connecticut Ave., N. W., Washington, D. C., will soon have plans prepared for the construction of a three-story hospital for the Alexandria Hospital Association. R. J. Jones is Chn. of Bldg. Com. The estimated cost is $50,000.

Lynchburg, Va.—Bids have been received for the construction of a three-story, 71x107-ft. building for the Virginia Episcopal School for Boys. F. H. Brooke, Telegraph Bldg., Washington, D. C., is Arch. Estimated cost, $60,000.

Matewan, W. Va.—Plans have been prepared by Pedigo & Garry, Arch., Bluefield, for the construction of a hotel for R. W. Buskirk, Matewan. The estimated cost is $150,000.

Charleston, S. C.—Bids will be received about May 7 by William Albert Swasey, Arch., 47 West 34th St., New York, N. Y., for the construction of a 12-story, 132x136-ft. theater and hotel building for the Argyle Hotel Co., 189 East Bay St., Charleston. Estimated cost, $600,000. Noted Oct. 29 and Apr. 8.

Greenville, S. C.—Plans have been prepared for the construction of a courthouse at Greenville. The estimated cost is $60,000. David B. Traxler is Chn. of Courthouse Comn.

Ashland, Ky.—Plans have been prepared by Weber, Werner & Adkins, Arch., 1206 Mercantile Library Bldg., Cincinnati, Ohio, for the construction of a four-story bank and office building for the Second National Bank. Estimated cost, $75,000.

Amherst, Ohio—The Board of Education plans to construct a two-story high school. Estimated cost, $50,000. O. F. Kaser is Pres. of Bd. of Education.

Ashtabula, Ohio—The Masonic Temple Association contemplates the construction of a three-story, 52x130-ft. building. The estimated cost is $50,000. T. W. Jarvis, Main St., is Secy.

Ashtabula, Ohio—The Loyal Order of Moose plans to construct a three-story, 85x140-ft. lodge building. Estimated cost, $100,000. H. A. Mack, Main St., is Secy.

Bloomdale, Ohio—An election was held Apr. 27 to vote on the question of issuing $60,000 in bonds, proceeds to be used for the construction of a school.

Canal Dover, Ohio—The Grace Lutheran Congregation plans to construct a church to cost about $50,000. B. W. Zeigler is Pastor.

Cedarville, Ohio—Plans have been prepared by Frank L. Packard, Arch., New Hayden Bldg., Columbus, for the construction of a school. Estimated cost, $75,000.

✚Cincinnati, Ohio—The general contract for the construction of a three-story apartment house at Forest and Burnet Ave. for the Forest Glen Realty Co., Sixth and Main St., has been awarded to REITMAN & REITMAN, 72 Perin Bldg., Cincinnati. Estimated cost, $100,000.

Cincinnati, Ohio—Preliminary plans are being considered by Leo J. Van Lahr, Vice-Pres. of the Provident Savings Bank & Trust Co., Seventh and Vine St., for the construction of a ten-story, 23x116-ft. bank and office building addition. The estimated cost is $100,000.

Cleveland, Ohio—Preliminary plans have been prepared by W. J. Carter, Arch. and Engr., 1423 Illuminating Bldg., for the construction of a four-story Masonic Temple for the Newburg Masonic Temple Co. James H. Rose, 9813 Pratt Ave., is Chn. of Bldg. Com. The estimated cost is $65,000. Noted Feb. 18.

✚Cleveland, Ohio—The contract for the construction of an office building and car shops, on Harvard Ave., for the Cleveland Ry. Co., Leader-News Bldg., has been awarded to the W. I. THOMPSON & SON CO., 6110 Euclid Ave., Cleveland.

Cleveland, Ohio—Bids will be received about May 15 by Izant & Frink, Arch., 913 Illuminating Bldg., for the construction of a building for H. O. Oster, 10,550 Euclid Ave. The estimated cost is $50,000.

Cleveland, Ohio—Bids will be received until noon, June 1, by the Clerk of the Board of Education, Rockwell Ave. and East Sixth St., for the construction of an addition to the Central School, Central Ave. and East 65th St. Frank G. Hogan is Dir. of Schools. Noted Mar. 11.

Cleveland, Ohio—Plans are being prepared by Theodore Conner, Arch., 908 Park Bldg., for the construction of a three-story commercial building at West 76th St. and Lake Rd., for the Clifton Furniture Co., 9802 Madison Ave. Estimated cost, $50,000.

Cleveland, Ohio—Paul Matzinger, Arch., 109 Lennox Bldg., has prepared plans for the remodeling of the Y. M. C. A. building into a theater for the Strand Theater Co., at Prospect Ave. and East Ninth St. Estimated cost, $40,000.

Cleveland, Ohio—H. A. Walsh, Arch., 255 Lennox Bldg., is preparing plans for the construction of a school at Superior Ave. and East 43d St. for the Immaculate Conception Church. Estimated cost, $50,000. George G. Murphy is Pastor.

Cleveland Heights, Ohio—(Warrensville post office)—Plans are being prepared by Franz C. Warner and John H. Graham, Archs., 767 Hippodrome Bldg., Cleveland, for the construction of a two-story grade school. The estimated cost is $75,000. John W. Perrin, Caxton Bldg., is Pres. of Bd. of Education.

Columbus, Ohio—D. Riebel & Sons, Arch., 33 North High St., is preparing plans for the construction of a two-story high school. The estimated cost is $500,000. Edward B. MacFadden, Town and High St., is Clk. of Bd. of Education. An election for the purpose of voting on the question of issuing bonds for the proposition will be held in the fall.

Columbus, Ohio—The Finance Committee of the Legislature has voted in favor of an appropriation of $340,000. This provides for the construction of a domestic science building to cost about $150,000, and a shop building for manual training to cost about $120,000 for the Ohio State University.

+Conneaut, Ohio—F. HORTON, 217 Washington St., Conneaut, has been awarded the contract for the construction of a two-story building for the Congregational Church. Estimated cost, $50,000. C. W. De Voe, 199 Liberty St., is Chn. of Bldg. Com.

Oberlin, Ohio—The Directors of Oberlin College plan to construct an auditorium. Estimated cost, $500,000. H. C. King is Pres. and C. P. Doolittle, 40 Professor St., is Supt. of Bldgs. Cass Gilbert, 11 East 24th St., New York, N. Y., is Arch.

+Toledo, Ohio—The contract for the construction of the Nebraska School on Nebraska Ave. has been awarded to the A. BENTLEY & SONS CO., 201 Belmont Ave., Toledo, at $148,262. Noted Apr. 8.

Toledo, Ohio—Langdon & Hohly, Arch., has prepared plans for the Fort Industry Lodge F. and A. M. George J. Marquardt is Pres.

Van Wert, Ohio—Contracts will be awarded soon for the construction of a five-story Y. M. C. A. building. Estimated cost, $50,000. E. I. Antrim is Secy. and Shattuck & Hussey, 19 South La Salle St., Chicago, is Arch.

Wadsworth, Ohio—Bids have been received by Charles E. Holbein, Clk. of Bd. of Education, for the construction of a two-story high and grade school. Estimated cost, $50,000. Vernon Redding, 301 Bird Bldg., Mansfield, is Arch.

+Wilmington, Ohio—The contract for the construction of a one-story bank building for the Clinton County National Bank has been awarded to the WESTERN BUILDING CO., Iroquois Bldg., Buffalo, N. Y. Estimated cost, $60,000.

+Ben Davis, Ind.—(Bridgeport post office)—The contract for the construction of a two-story school has been awarded to WILLIAM EVERLY, 230 East Ohio St., Indianapolis. Estimated cost, $40,000. Noted Mar. 18.

Bloomington, Ind.—The University of Indiana will soon award contracts for the construction of a gymnasium. Estimated cost, $150,000. Noted Mar. 25 and Apr. 1.

Franklin, Ind.—Bids will be received about May 22 by Herbert Foltz, Arch., 1108 Indiana Pythian Bldg., Indianapolis, for the construction of a State Masonic Home for the Grand Masonic Lodge of Indiana. Estimated cost, $150,000. E. O. Holloway, Knightstown, is Chn. of Bldg. Com. Noted Sept. 3.

+Hammond, Ind.—The contract for the construction of a two-story school has been awarded to J. H. McCLAY at $51,300. Noted Dec. 17.

Kendallville, Ind.—Bids will be received until May 7 by P. C. Emmons, Supt. of the Bd. of Education, for the construction of a high school on Diamond St. Estimated cost, $50,000. C. R. Weatherhogg, 41 Hamilton National Bank Bldg., Ft. Wayne, is Arch. Noted Feb. 18.

East Lansing, Mich.—The Michigan Agricultural College Alumni Association plans to construct a Union clubhouse on the college campus. Estimated cost, $100,000. C. S. Langdon is Secy.

Detroit, Mich.—John H. Kunsky and associates plan to construct a theater at Broadway and Witherell St. Noted Aug. 20.

Detroit, Mich.—Bids will be received until 2.30 p.m., May 13, by D. B. Duffield, Pres. of Detroit Library Comn., for the structural steel work of the superstructure of the main library to be constructed at Woodward, Cass, Putnam and Kirby Ave. The estimated cost of the entire building is $1,000,000. Cass Gilbert, 11 East 24th St., New York, N. Y., is Arch. Noted Dec. 17 and Jan. 21.

Highland Park, Mich.—Plans are being prepared by W. D. Butterfield, Arch., 1113 Davis Whitney Bldg., for the construction of the two-story, 100x130-ft. Southeastern High School at Oakland and Massachusetts Ave. The estimated cost is $100,000. W. S. Conley, 1117 California Ave., is Secy. of Bd. of Education. Noted Dec. 10.

+Aurora, Ill.—The contract for the construction of a two-story grade school has been awarded to JAMES MACKIMIE, Aurora. Estimated cost, $50,000. W. S. Beaupre, Aurora National Bank, is Secy. of Bd. of Education.

+Bloomington, Ill.—The contract for the construction of a two-story, 75x115-ft. theater and office building has been awarded to the BLOOMINGTON CONSTRUCTION CO., Bloomington. Estimated cost, $50,000. Charles F. Sorenson, 1301 North Maplewood Ave., is Arch.

Chicago, Ill.—Bids will be received about May 13 by Anton Charvat, Arch., 1801 South Ashland Ave., for the construction of a building for the John Huss Memorial Home Association. Joseph W. Edgermayer, 2418 Grenshaw St., is Chn. of Bldg. Com. Estimated cost, $80,000.

Chicago, Ill.—The Chicago Telephone Co., 230 West Washington St., has purchased a site at Franklin and Washington St. The company plans to construct a building estimated to cost $750,000.

Chicago, Ill.—Plans are being prepared by James Molitor, Arch., 167 West Washington St., for the construction of a two-story building for the St. Cyril and St. Methodius Church. Estimated cost, $50,000.

Chicago, Ill.—Plans are being prepared by Ottenheimer, Stern & Reichert, Arch., 105 West Monroe St., for the construction of an eight-story clubhouse for Lodge No. 4, B. P. O. E. The estimated cost is $250,000. Noted Feb. 11.

Chicago, Ill.—The Flossmoor Country Club will build a brick club-house to replace the one destroyed by fire. It will cost $99,000.

Chicago, Ill.—The Knight Light Co., 720 North Franklin St., plans to build a six-story building at Orleans St. and Chicago Ave. Estimated cost, $130,000.

Chicago, Ill. — The Board of Education will construct a three-story brick school at 3101 West 65th St. Estimated cost, $60,000. A. F. Hussander is Arch.

+Lisle, Ill.—The general contract for the construction of an addition to the seminary at the St. Procopius Abbey near Lisle has been awarded to F. SEDLAK SONS, 2427 South Spaulding Ave., Chicago. Estimated cost, $150,000.

Palestine, Ill.—Contracts will soon be awarded by Hewitt & Emerson, Arch., 321 West Main St., Peoria, for the construction of a two-story high school. The estimated cost is $50,000. J. J. Cawood is Secy. of Bd. of Education.

Pekin, Ill.—Bids will be received about May 10 by Hewitt & Emerson, Arch., 321 West Main St., Peoria, for the construction of a two-story high school. The estimated cost is $90,000. J. C. Adydelott is Chn. of Bd. of Education.

+Peoria, Ill.—The general contract for the construction of a two-story addition to the Whittier School has been awarded to JOHN VOSS & SON, Peoria. Estimated cost, $55,000. Noted Sept. 24.

+Chippewa Falls, Wis.—The WISCONSIN CONSTRUCTION CO. has been awarded the contract for the construction of the New Lumberman's Bank Bldg. Estimated cost, $65,000.

Eau Claire, Wis.—Plans are being prepared by George Awsumb, Arch., 14 East Jackson Blvd., Chicago, Ill., for the construction of a city hall. Estimated cost, $50,000. J. C. Fennessey, is City Clk. Noted Mar. 11 and Apr. 29.

+Jefferson, Wis.—The contract for the construction of a building for St. Collette's Institute has been awarded to LADIEN & STENGEL, Jefferson. Estimated cost, $50,000.

Kenosha, Wis.—Bids will soon be received by M. D. Bradford, Board of Education, for the construction of a three-story grade school. The estimated cost is $100,000. H. H. Hahn, Burke Bldg., is Arch. Noted Apr. 15.

Madison, Wis.—Preliminary plans are being prepared by Philip Dean, Comr. of Bldgs., for the construction of a four-story city hall and auditorium. Estimated cost, $200,000. A. W. McConnell is Chn. of Com.

Milwaukee, Wis.—Bids will be received about May 15 by Kirchoff & Rose, Arch., Majestic Bldg., for the construction of a four-story building for the Palace Theater Co. The estimated cost is $350,000. Noted Mar. 4 and 11, and Apr. 1.

Milwaukee, Wis.—L. J. Petit, Wisconsin National Bank, contemplates the construction of a building in Milwaukee. The estimated cost is $250,000.

Forest City, Iowa—Plans are being prepared by Alban & Lockhardt, Arch., 347 Endicott Bldg., St. Paul, Minn., for the construction of a three-story high school for the Board of Education. Estimated cost, $60,000.

Harlan, Iowa—The citizens voted in favor of issuing $90,000 in bonds, the proceeds of which will be used for the construction of a high school.

Mt. Ayer, Iowa—J. G. Ralston, Arch., Russel-Lameson Bldg., Waterloo, is preparing plans for the construction of a county building. Estimated cost, $40,000.

Roland, Iowa—The School Board plans to construct a $50,000 school at Roland. Bonds for the purpose have been voted.

Kenyon, Minn.—D. E. Evans, Mexico, Mo., submitted the lowest bid for the construction of a two-story school for District No. 91. The estimated cost is $50,000. J. C. E. Holman is Clk. of School Bd. Noted Jan. 14.

Minneapolis, Minn.—Plans are being prepared by Kirby T. Snyder, Arch., Plymouth Bldg., for the construction of an apartment house at Lake and First St. for Harry Kennedy, 3005 Oakland Ave. Estimated cost, $75,000.

+Virginia, Minn.—The GENERAL CONTRACTING CO., 1226 Plymouth Bldg., Minneapolis, has been awarded the contract for the construction of a parochial school for Our Lady of Lourdes Church. Estimated cost, $70,000.

Wells, Minn.—The St. Casmirs Church plans to construct a two-story, 66x80-ft. parochial school. Estimated cost, $50,000. J. Nickelia, Wells, is Pastor.

+Horton, Kan.—SCOTT BROS., Concordia, Kan., has been awarded the contract for the construction of a high school. Bonds have been voted for the purpose. The estimated cost is $60,000.

Meade, Kan.—W. E. Hulse & Co., Arch., Hutchinson, has prepared plans for the construction of a courthouse for Meade County. The estimated cost is $60,000. The citizens will vote about June 1 on the question of issuing bonds for the purpose.

Minneapolis, Kan.—The Board of Education plans to construct a $40,000 school. J. E. Johnston is Pres. of Bd.

Salina, Kan.—W. T. Schmitt, Arch., 1634 West Tenth St., Oklahoma, Okla., is preparing plans for the construction of a high school at Salina. O. D. Walker is Pres. of Bd. of Education. Estimated cost, $100,000. Noted Apr. 8.

Omaha, Neb.—Work will be started about June 15 on the construction of a 12-story bank and office building for the Union Securities Co. Estimated cost, $625,000. Noted Apr. 15.

Sioux Falls, S. D.—Bids will be received until 4 p.m., May 17 by W. B. Fuller, Secy., Independent School District for the construction of a grade school. The estimated cost is $50,000. Patton, Holmes & Flin, 8 South Dearborn St., Chicago, Ill., is Arch.

Anaconda, Mont.—Plans have been prepared by Wilson & Cuttin, Arch., Butte, for the construction of a three-story addition to the high school, to be used as a gymnasium. The estimated cost is $100,000. Noted May 21, 1914.

Warmsprings, Mont.—A bond issue of $100,000 has been authorized by the State Board of Examiners, Helena. The proceeds will be used for the construction of buildings at the State Hospital for the Insane, Warmsprings and for buildings at the State Tuberculosis Sanitarium, Helena.

Joplin, Mo.—Plans are being prepared by Hubbell & Greene, Arch., Dallas, Tex., for the construction of a building for the Scottish Rite Cathedral. The estimated cost is $150,000. Noted Apr. 8.

St. Louis, Mo.—The Union Electric Light & Power Co. will construct an 18-story office building at Ninth and St. Charles St.

St. Louis, Mo.—The Orpheum Theater Co., 1564 Broadway, New York, N. Y., plans to construct a theater at Ninth and St. Charles St. Estimated cost, $1,000,000. Louis A. Cella is interested.

Dallas, Tex.—Hubbell & Greene, Arch., is preparing plans for remodeling the building at Commerce and Martin St. The building will be occupied by the Federal Reserve Bank of the 11th District. Estimated cost, $65,000.

El Paso, Tex.—Plans have been prepared by Trost & Trost, Arch., Mills Bldg., and accepted by the Commissioners of El Paso County, for the construction of a courthouse. The estimated cost is $400,000. Noted Dec. 17.

✚**Fort Worth, Tex.**—A. W. FLINT, Fort Worth, has been awarded the contract for the construction of a two-story fireproof school for the Masonic Orphans' Home. Estimated cost, $75,000. Hubbell & Greene, Dallas, is Arch.

Bartlesville, Okla.—Bids will be received about May 20 by Shattuck & Hussey, Arch., 19 South La Salle St., Chicago, Ill., for the construction of a two-story Y. M. C. A. building. Noted Oct. 22.

Woodman, Colo.—The Directors of the Modern Woodmen of America plan to construct a hospital at the society's sanitarium. The estimated cost is $50,000. A. Ruthledge, Supt., is interested.

Albuquerque, N. M.—Bids are being received by Edward Cristy, Assoc. Arch., for the construction of a four-story Y. M. C. A. building. Estimated cost, $75,000.

Mountain Home, Idaho—An election will be held May 22 to vote on the question of issuing $50,000 in bonds. The proceeds will be used for the construction of a courthouse. F. M. Hobbs, is County Clk.

Pocatello, Idaho—Plans are being prepared by F. Paradice, Arch., for the construction of a high school. The estimated cost is $70,000. W. R. Siders is Secy. of Bd. of Education. Noted Mar. 18 and Apr. 8.

Seattle, Wash.—Bebb & Gould, Arch,, Denny Bldg., has prepared plans for the construction of a two-story fireproof building for the University of Washington. The building will be constructed in two units, the first one costing about $150,000.

Seattle, Wash.—The Metropolitan Building Co., plans to construct an office building, estimated to cost, $200,000.

Seattle, Wash.—The New Auditorium Co., Seattle, will construct an auditorium on Marion St. between 10th and 11th Ave. Estimated cost, $100,000. H. Ryan, Northern Bank Bldg., is Arch. Noted Aug. 13.

✚**Spokane, Wash.**—The SOUND CONSTRUCTION & ENGINEERING CO., Lowman Bldg., Seattle, has been awarded the contract for rebuilding the seven-story Mohawk Bldg. recently destroyed by fire, for M. A. White and George R. Dodson, Spokane. Estimated cost, $200,000. Noted Apr. 15.

Walla Walla, Wash.—Competitive plans are being received by P. M. Winans, Representative, for the construction of a hospital for the Sisters of Providence. The estimated cost is $200,000. Noted Feb. 18 and 25.

Eugene, Ore.—The Board of Regents of the University of Oregon plans to construct a building at the university grounds to be used by the Department of Law. Estimated cost, $40,000.

Pendleton, Ore.—Bids will be received until May 20 by the State Board of Control, Salem, for the construction of a three-story, reinforced-concrete wing at the State Hospital for Insane, Pendleton. Estimated cost, $100,000. W. C. Knighton is State Arch. Noted Feb. 18.

Portland, Ore.—Tourtellotte & Hummel, Arch., has prepared plans for the construction of a school at 12th and Taylor St. for the First Methodist Episcopal Church. Estimated cost, $50,000.

Los Banos, Calif.—Plans prepared by Ernest J. Kump, Arch., Fresno, for the construction of a three-story building for the Odd Fellows have been accepted by the Building Committee. Estimated cost, $40,000. J. V. Toscano is a member of Bldg. Com.

San Bernardino, Calif.—The First Congregational Church plans to construct a church at Ninth and E St. Estimated cost, $50,000. H. W. Bowbray is Pastor.

✚**Stockton, Calif.**—(Official)—R. W. MOLLER, 185 Stevenson St., Stockton, at $63,928, has been awarded the contract for the construction of a two-story school. Other bidders were: Daniels & Green, $67,775; Ernest Green, $67,964; Chuhart & Nystedt, $69,815; Robert Powell, $71,443; French, Zuick & Fuhrman, $74,592. Ansel S. Williams is Supt. of Schools. Noted Apr. 15.

Quebec, Que.—The Christian Brothers contemplate the construction of a commercial school on Chauveau Ave. Estimated cost, $200,000.

Norwood, Ont.—Henry W. Greene, Arch., Winnipeg, Man., has been commissioned by the St. Boniface Public School Board to prepare plans for the construction of a reinforced-concrete school at Youville and Eugenic St. The estimated cost is $120,000. S. S. Kennedy, Norwood, is Consult. Engr.

Sandwich, Ont.—The Assumption College plans to construct a three-story, 70x107-ft. dormitory and a one-story gymnasium on the college campus. Estimated cost, $60,000. F. F. Foster is Pres.

Toronto, Ont.—The School Board plans to construct a school for the Danford Ave. District on Greenwood near Furniss Ave. Estimated cost, $400,000.

Toronto, Ont.—Darling & Pearson, Arch., is preparing plans for the construction of a Union Station at North Toronto for the Canadian Pacific Ry. The estimated cost is $800,000. Noted Jan. 21.

Calgary, Alta.—Bids will be received until 4 p.m., May 25, by R. C. Desrochers, Dept. of Pub. Wks., Ottawa, Ont., for the construction of an armory. The estimated cost is $350,000. L. Dowler, Calgary, is Resident Arch. Noted Apr. 15.

Cardston, Alta.—The School Board plans to rebuild the school recently destroyed by fire, at Cardston. Estimated cost, $60,000.

The Builders Iron Foundry, Providence, R. I., recently received an order from Swift & Co., Chicago, for an extra heavy 4-in. Venturi meter tube, with Type M register indicator recorder, for use in new boiler feed service.

The Southwark Foundry & Machine Co., Philadelphia, Penn., is now actively engaged in the manufacture of hydraulic and steam hydraulic presses, and has a considerable volume of this work in hand.

The Chesapeake Iron Works, Baltimore, Md., has acquired control of Lauer & Harper Co. The latter company has a large plant at Westport and has specialized in the fabrication of steel. The Chesapeake Iron Works was organized in 1902. F. S. Cavannes is Pres. and R. C. Sandlass, Ch. Engr.

The Simplex Concrete Piling Co., Philadelphia, Penn., announces that the Cranford Construction Co., 609 Gerke Bldg., Cincinnati, Ohio, has secured the contract for simplex concrete piles for the Pennsylvania station and platforms at Wilkinsburg, Penn., and the contract for simplex concrete piles for factory at Third and Lakeside Ave., Cleveland, Ohio.

Municipal Bond Sales during March aggregated $50,000,000, according to the computation of the "Financial Chronicle." This shows a gain over the same month last year of $8,000,000. In the first three months of this year, sales amounted to $115,000,000, compared with $162,000,000 in the corresponding months last year. The record of 1914, however, was phenomenal, and with the exception of that year and 1911, the sales this year have been the largest on record.

The Nordberg Mfg. Co., Milwaukee, Wis., builder of engines, hoists, pumping engines, steam stamps, and other appliances, announces the removal of its New York office to the new Equitable Bldg., 120 Broadway. H. M. MacLaren is Mgr. in New York.

The Toledo Bridge & Crane Co., Toledo, Ohio, announces that a branch office has been opened in the Kresge Bldg., Detroit. MacArthur Gorton will be the Michigan representative, with headquarters at Detroit.

The Traylor Engineering & Mfg. Co., Allentown, Penn., announces that some important orders have recently been closed. Conklin & Foss Co., who has the largest trap rock quarry in the United States, has purchased what is said to be the largest jaw crusher ever made. The crusher is 56x86 in., weighing 520,000 lb., and constructed of cast steel throughout, with manganese steel fittings. The crusher will be driven by a 350-hp. Westinghouse motor. The company was also furnished two heavy stone elevators, one 75-ft. center and the other 52 ft., fitted with buckets 30x12x15 in. of $\frac{3}{16}$-in. steel. A special car of rigid design and 10-ton capacity was used for transportation of the stone. These cars are rigid but are dumped by a heavy tipple actuated by compressed-air service.

The Vulcanite Portland Cement Co. announces the removal of its office to 8 West 40th St., New York, N. Y. Albert Moyer is Mgr. of Sales.

G. W. Humphrey, Consulting and Designing Engineer, announces the removal of his office to the Webster Bldg., 327 South La Salle St., Chicago, Ill.

The Rocmac Road Department of the Philadelphia Quartz Co. has established a branch office in the Union Bldg., Anderson, Ind. Brooks E. Miller represents the company in that territory.

The Commission of Highways, State of New York, announces that, effective May 1, the office of Division No. 1, Bertrand H. Wait, Division Engr., will be moved from White Plains to Poughkeepsie.

The Raymond Concrete Pile Co., 90 West St., New York, N. Y., announces that it has recently been awarded contracts for concrete pile foundations as follows: For the factory of the Atlantic Can Co., Baltimore, Md.; for the warehouse of the Logan-Gregg Hardware Co., Pittsburgh, Penn.; for the Sharswood Public School, Second and Wolf St., Philadelphia, Penn.; for Mergenthaler Bros.' coal pockets, Swanson and Wolf St., Philadelphia, Penn.; warehouse and other buildings for the Standard Oil Co., Cortlandt St., Chicago, Ill.; new pattern storage warehouse for the Westinghouse Electric & Mfg. Co., Cleveland, Ohio.

A. D. Cook, Lawrenceburg, Ind., manufacturer of pumps and supplies for deep wells, will take over the business of the Cook Well Co., St. Louis, Mo., which has retired from business.

The Underpinning & Foundation Co., 290 Broadway, New York, has recently been awarded the foundation work for a 12-story structure to be known as the Cliff Dwelling, at 96th St. and Riverside Drive. The foundation will consist of standard Hercules steel piles. Herman Leader is Arch.

The Canadian Fairbanks, Morse Co., Ltd., has been appointed selling agent in Canada for the Temflex Metal Hose manufactured by the Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Penn.

RAPID TRANSIT SYSTEM, NEW YORK, N. Y.

Route 12, Section 2

✚Bids were received Apr. 20 by the Public Service Commission of the First District for the construction of Section 2 of Route No. 12, a part of the Eastern Parkway Rapid Transit Ry., from: (A) INTER-CONTINENTAL CONSTRUCTION CO. (awarded contract); (B) Bayly Hopkins; (C) Charles Cooper; (D) Underpinning & Foundation Co.; (E) H. P. Converse & Co.; (F) Degnon Contracting Co.; (G) T. A. Gillespie Co.; (H) Norton & Gorman Contracting Co.; (I) Newman & Carey; (J) Oscar Daniels Co.; (K) Dock Contractor Co.; (L) E. E. Smith Contracting Co.; (M) Mason & Hanger Co.; (N) Tidewater Building Co.; (O) Rogers & Hagerty, Inc.; (P) Arthur McMullen; (Q) John J. Green; (R) Smith, Hauser & MacIsaac, Inc.; (S) W. H. Gahagan, Inc. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J
606,000 cu.yd. earth excavation above m. h. w.	**$1.75**	**$1.60**	**$1.96**	**$1.98**	**$2.10**	**$2.10**	**$2.35**	**$2.45**	**$2.65**	**$2.70**
800 cu.yd. earth excavation above and below m. h. w. sewers	1.75	3.00	1.96	1.98	2.10	2.10	2.35	10.00	1.30	2.70
30 front ft. maintaining and underpinning buildings	10.00	50.00	40.00	80.00	100.00	40.00	50.00	40.00	50.00	1.00
Maintaining, moving and restoring Slocum statue	600.00	10,000.00	2000.00	4000.00	2000.00	10,000.00	1000.00	250.00	5000.00	3500.00
Maintaining, moving and restoring Maxwell tablet boulder	400.00	1000.00	1000.00	500.00	400.00	5000.00	400.00	100.00	1000.00	1500.00
98 maintaining, protecting and preserving trees	10.00	50.00	10.00	15.00	100.00	50.00	60.00	100.00	50.00	20.00
138 replacing trees	100.00	50.00	15.00	10.00	100.00	25.00	50.00	75.00	110.00	65.00
89,400 cu.yd. concrete masonry	7.00	7.00	6.50	6.50	7.00	7.50	7.00	7.00	7.00	7.50
6000 cu.yd. protective concrete masonry outside w.p.	7.00	7.00	6.50	6.50	7.00	7.50	7.00	6.00	6.00	7.50
20 cu.yd. rubble stone masonry	7.00	7.00	5.00	6.50	7.00	6.00	4.20	8.00	6.00	9.00
20 cu.yd. dry rubble masonry	4.00	7.00	5.00	6.00	4.00	5.00	3.50	6.00	3.90	6.00
20 cu.yd. brick masonry	17.00	15.00	15.00	20.00	20.00	15.00	12.00	15.00	20.00	15.00
50 cu.yd. removal and disposal of foundations	2.50	10.00	5.00	10.00	8.00	15.00	3.00	8.00	5.20	6.00
70 cu.yd. hollow terra cotta brick or tile masonry	15.00	15.00	15.00	25.00	15.00	15.00	15.00	15.00	15.00	17.00
1000 bbl. grout of portland cement	4.00	3.00	2.50	2.20	2.00	1.50	2.50	2.50	2.43	2.00
1000 lin.ft. timber piles	0.50	0.50	0.01	0.20	0.30	0.10	0.40	0.50	0.60	0.35
2 M. ft. b.m. timber foundations	50.00	50.00	20.00	40.00	50.00	25.00	48.00	75.00	50.00	60.00
50 cu.yd. broken stone or gravel	2.00	2.00	2.50	3.00	2.00	2.00	2.10	3.00	3.00	2.00
14,700 sq.yd. waterproofing, 1-ply	0.50	0.40	0.45	0.40	0.35	0.50	0.35	0.30	0.36	0.35
100 sq.yd. waterproofing, 2-ply	0.90	0.60	0.85	0.80	0.60	0.75	0.60	0.50	0.66	0.70
39,800 sq.yd. waterproofing, 3-ply	1.00	1.00	1.00	1.20	0.80	1.00	1.00	0.75	0.99	1.00
100 sq.yd. waterproofing, 4-ply	1.35	1.25	1.20	1.60	1.20	1.30	1.20	1.00	1.28	1.35
100 sq.yd. waterproofing, 5-ply	1.70	1.60	1.40	2.00	1.30	1.65	1.40	1.25	1.52	1.65
100 sq.yd. waterproofing, 6-ply	2.00	2.00	1.60	2.40	1.40	2.00	1.60	1.50	1.83	2.00
100 sq.yd. waterproofing, dry ply	0.40	0.40	0.45	0.35	0.20	0.40	0.30	0.25	0.17	0.35
2000 cu.yd. brick in asphalt mastic	25.00	20.00	25.00	18.00	22.00	20.00	20.00	20.00	23.30	21.00
50 lin.ft. vitrified drain pipe, 12-in.	1.00	1.00	1.40	1.50	1.00	0.80	0.80	0.60	0.48	1.00
50 lin.ft. vitrified drain pipe, 10-in.	0.85	0.85	1.25	1.25	0.80	0.50	0.60	0.50	0.40	0.80
50 lin.ft. vitrified drain pipe, 8-in.	0.70	0.75	1.00	1.00	0.70	0.30	0.40	0.40	0.35	0.70
50 lin.ft. vitrified drain pipe, 6-in.	0.60	0.60	0.60	0.75	0.60	0.20	0.30	0.30	0.30	0.60
50 lin.ft. vitrified drain pipe, 4-in.	0.60	0.50	0.50	0.50	0.40	0.20	0.20	0.20	0.23	0.60
50 lin.ft. c.i. drain pipe, 6-in.	1.50	1.50	1.25	1.50	1.20	1.00	0.80	0.90	0.83	1.00
50 lin.ft. c.i. drain pipe, 4-in.	1.00	1.00	1.00	0.75	1.00	1.00	0.60	0.75	0.69	0.60
200 lin.ft. c.i. drain pipe, 10-in.	2.40	2.25	3.00	2.50	1.50	1.50	1.60	1.80	1.76	1.70
100 lin.ft. c.i. pipe and fittings, 3-in. extra heavy	1.00	1.00	1.00	0.75	0.60	1.00	0.60	0.90	0.58	0.60
5100 lin.ft. c.i. pipe and fittings, 4-in. extra heavy	1.25	1.25	1.30	1.00	1.00	1.00	0.72	1.00	0.74	0.70
300 lin.ft. c.i. pipe and fittings, 6-in. extra heavy	1.50	2.00	1.65	1.50	1.30	1.50	1.10	1.25	1.12	1.10
200 lin.ft. c.i. pipe and fittings, 8-in. extra heavy	2.00	2.50	2.00	2.00	1.60	1.75	1.40	1.75	1.37	1.35
442,000 duct ft. tunnel ducts	0.10	0.10	0.09	0.15	0.095	0.10	0.10	0.08	0.10½	0.09
28,400 duct ft. railroad ducts	0.12	0.10	0.20	0.20	0.10	0.20	0.10	0.08	0.22	0.13
5300 tons riveted steel	54.00	56.00	55.00	60.00	56.00	59.00	55.00	60.00	65.00	54.00
7070 tons steel beams and shapes	48.00	56.00	55.00	56.00	48.00	50.00	50.00	50.00	50.00	50.00
960 tons steel rods and bars	60.00	60.00	55.00	56.00	40.00	45.00	45.00	55.00	43.50	55.00
100 tons miscellaneous iron castings	65.00	75.00	70.00	80.00	60.00	50.00	56.00	75.00	75.00	55.00
1 ton miscellaneous sewer irons	65.00	75.00	70.00	100.00	80.00	80.00	61.00	75.00	75.00	65.00
200 lb. special wire forms	0.10	0.10	0.12	0.20	0.10	0.30	0.10	0.10	0.16	0.25
12,900 lin.ft. seasoned oak or ash hand rail 1¾-in.	0.25	0.25	1.50	0.35	0.40	0.50	0.40	0.30	0.30	0.27
16,300 sq.ft. steel gratings for ventilation	1.50	1.50	1.40	1.00	1.40	1.10	1.30	1.25	1.80	1.40
3040 sq.ft. vault lights	1.40	1.50	1.40	0.90	1.40	1.10	1.60	1.00	1.24	0.80
680 sq.yd. sidewalks restored	0.50	3.00	2.00	1.00	1.75	2.00	1.00	2.00	3.00	2.25
100 sq.yd. repavement of roadways, macadam	0.60	1.50	1.00	1.80	1.40	1.50	0.60	1.50	1.00	1.75
1000 sq.yd. repavement of roadways, asphalt	2.00	2.75	2.50	2.25	2.40	2.50	2.00	2.50	2.50	2.75
900 sq.yd. repavement of roadways, granite block	2.50	2.50	4.00	1.00	1.75	2.50	0.50	1.00	2.50	1.50
11,300 sq.yd. repavement of roadways, Belgian block	1.00	2.00	0.60	1.00	0.80	0.80	0.50	0.50	0.50	1.50
1000 sq.yd. repavement of roadways, asphalt block	2.50	2.50	3.50	2.25	1.50	3.00	3.00	2.50	2.50	3.25
100 lin.ft. new bluestone curb	1.00	1.50	1.00	1.60	0.90	1.00	1.00	1.00	1.50	0.90
100 lin.ft. new 8-in. granite curb	1.00	1.50	1.50	2.60	2.00	1.50	2.00	1.50	2.50	1.00
140 sq.yd. repavement of roadways, brick	3.00	2.00	2.50	3.00	2.25	2.50	2.00	3.25	2.50	3.00
19,700 sq.yd. repavement of roadways, macadam and asphalt surface	1.47	1.50	1.20	2.00	1.50	1.75	0.75	1.00	1.15	0.75
4800 sq.yd. park surface restored	0.50	3.00	1.25	1.00	0.50	2.00	1.50	0.50	2.00	1.50
12,500 lin.ft. electric conduits, ¾-in. w.i.	0.25	0.15	0.30	0.20	0.15	0.25	0.20	0.15	0.19	0.12
750 lin.ft. electric conduits, 1½-in. w.i.	0.40	0.30	0.50	0.40	0.30	0.40	0.35	0.20	0.30	0.27
750 lin.ft. electric conduits, 2-in. w.i.	0.60	0.50	0.75	0.50	0.40	0.60	0.40	0.30	0.45	0.35
4400 lin.ft. electric conduits, 1-in. w.i.	0.30	0.20	0.40	0.30	0.25	0.30	0.25	0.20	0.25	0.16
1100 c.i. outlet boxes	1.00	0.75	1.00	1.50	1.00	1.00	0.70	0.50	1.00	1.00
200 lin.ft. c.i. pipes and fittings, 6-in. extra heavy	1.50	2.00	2.00	1.50	1.50	1.50	0.90	1.50	1.12	1.10
150 lin.ft. c.i. pipes and fittings, 3-in. extra heavy	1.00	1.00	1.00	0.75	1.00	1.00	0.40	1.00	0.58	0.60
100 lin.ft. vitrified pipe sewer, 12-in.	3.00	2.50	3.00	5.00	1.00	3.00	1.20	1.25	0.48	2.20
100 lin.ft. vitrified pipe sewer, 15-in.	3.50	3.00	3.50	6.00	1.50	3.50	1.50	1.75	0.82	2.60
100 lin.ft. vitrified pipe sewer, 18-in.	4.00	3.50	4.00	5.00	2.00	4.00	2.00	2.25	1.12	3.20
100 lin.ft. vitrified pipe sewer, 20-in.	4.50	3.75	4.50	5.00	2.50	4.50	2.60	2.50	1.38	3.50
100 lin.ft. vitrified pipe sewer, 22-in.	5.00	4.00	5.00	5.00	3.00	5.00	3.20	2.75	1.60	3.75
200 lin.ft. vitrified pipe sewer, 24-in.	5.50	4.50	5.50	8.00	3.25	5.50	3.80	3.00	1.88	4.50
3 tons c.i. sewer pipe, straight	50.00	75.00	40.00	40.00	50.00	50.00	45.00	50.00	40.00	40.00
1 ton c.i. sewer pipe, special	90.00	75.00	50.00	80.00	60.00	80.00	65.00	75.00	92.00	70.00
80 lin.ft. pipe sewer egg-shaped, 22½ in. x 15 in.	10.00	4.00	4.00	10.00	3.00	4.00	4.00	3.00	1.40	3.50
250 lin.ft. masonry sewer, 3 ft. 6 in. x 2 ft. 4 in.	10.00	6.00	6.50	10.00	4.00	6.00	6.00	5.50	3.57	4.50
160 lin.ft. masonry sewer, 3 ft. 9 in. x 2 ft. 6 in.	10.00	7.00	7.50	10.00	5.00	7.00	6.00	6.75	4.07	5.00
50 lin.ft. masonry sewer, 4 ft. x 2 ft. 8 in.	11.00	8.00	8.00	10.00	6.00	8.00	6.20	7.25	4.66	5.50
125 lin.ft. masonry sewer, 3 ft. 9 in.	12.00	8.00	8.00	10.00	7.00	8.00	7.00	5.50	6.47	5.50
780 lin.ft. maintaining electric R.R. single track	5.00	10.00	2.50	2.50	4.00	10.00	6.00	0.25	2.00	5.50
Maintaining and underpinning subsurface railroad	2000.00	20,000.00	10,000.00	15,000.00	5000.00	40,000.00	6000.00	5000.00	7000.00	15,000.00
100 lin.ft. water pipe, 6-in.	1.00	1.00	0.75	0.60	1.00	1.00	1.10	2.00	0.31	0.80
100 lin.ft. water pipe, 8-in.	1.25	1.50	1.50	0.80	1.50	1.00	1.50	2.00	0.50	1.20
100 lin.ft. water pipe, 12-in.	1.50	2.00	1.60	1.20	2.50	1.25	2.00	2.00	0.60	1.50
100 lin.ft. water pipe, 16-in.	2.25	3.50	1.80	1.60	3.50	1.40	2.25	2.00	0.82	2.00
250 lin.ft. water pipe, 20-in.	3.00	4.00	2.00	2.00	4.00	1.50	2.50	2.50	1.04	2.25
500 lin.ft. water pipe, 30-in.	6.00	6.00	3.00	3.00	9.00	1.60	3.50	3.00	1.48	3.50
500 lin.ft. water pipe, 36-in.	7.50	10.00	3.50	3.60	12.50	1.80	5.00	4.00	2.81	4.00
250 lin.ft. water pipe, 48-in.	10.00	15.00	4.00	4.80	21.00	2.00	8.00	5.00	4.50	5.00
20 service connections for water-pipes	25.00	25.00	10.00	20.00	10.00	10.00	20.00	20.00	7.10	15.00
100 lin.ft. gas-pipe, 4-in. c.i.	0.60	1.00	0.60	0.40	0.75	1.00	1.00	1.00	0.31	0.70
100 lin.ft. gas-pipe, 6-in. c.i.	1.00	1.25	0.75	0.60	1.00	1.00	1.50	1.00	0.31	0.80
100 lin.ft. gas-pipe, 10-in. c.i.	1.25	1.50	1.60	1.00	2.00	1.00	2.00	1.50	0.60	1.30
100 lin.ft. gas-pipe, 12-in. c.i.	1.50	2.00	1.60	1.20	2.50	1.25	2.50	1.75	0.60	1.50
100 lin.ft. gas-pipe, 16-in. c.i.	2.25	2.25	1.80	1.60	3.50	1.40	3.50	2.00	0.82	2.00
400 lin.ft. by-passing pipe, 6-in. w.i.	2.50	3.00	3.00	3.00	3.00	1.00	2.50	2.50	1.02	3.50
100 lin.ft. by-passing pipe, 8-in. w.i.	3.00	3.50	3.50	3.50	4.00	1.00	2.50	3.00	1.37	4.00
4150 lin.ft. by-passing pipe, 12-in. w.i.	4.00	4.50	5.00	4.00	6.00	1.00	3.15	4.00	2.50	4.00
150 lin.ft. by-passing pipe on trestle, 16-in. w.i.	5.25	5.00	12.00	8.00	8.00	5.50	4.50	5.00	4.55	6.50
150 lin.ft. by-passing pipe on trestle, 8-in. w.i.	3.00	3.50	3.50	4.00	4.00	4.00	2.75	3.00	1.37	3.50
130 lin.ft. trestle for by-passing pipe	3.00	5.00	4.00	8.00	5.00	2.00	3.00	5.00	1.40	6.00
20 service connections for gas pipes	15.00	20.00	10.00	25.00	10.00	10.00	15.00	20.00	7.50	12.00
75 tons c.i. hub and spigot pipe, straight	100.00	50.00	40.00	40.00	60.00	50.00	35.00	30.00	32.85	32.00
18 tons c.i. hub and spigot pipe, special	120.00	75.00	65.00	80.00	75.00	80.00	70.00	60.00	78.00	65.00
2000 duct ft. electric ducts and conduits	0.50	0.30	0.50	0.80	0.50	1.00	0.65	0.35	0.38	0.25
500 lin.ft. electric ducts and conduits w.i. pipe, 3-in.	0.50	0.60	0.55	1.00	0.50	1.00	0.65	0.50	0.38	0.30
500 lin.ft. electric ducts and conduits w.i. pipe, 3½-in.	0.50	0.75	0.60	1.00	0.75	1.00	0.65	0.65	0.45	0.30
20 service connections for electric ducts	25.00	20.00	10.00	25.00	10.00	10.00	10.00	20.00	5.00	15.00
1000 duct ft. wooden electric ducts and conduits	0.25	0.75	0.50	0.80	0.50	1.00	0.65	0.40	0.20	0.25
Extended totals	**$2,744,263**	**$2,763,210**	**$2,872,705**	**$2,938,725**	**$2,944,281**	**$3,049,727**	**$3,064,609**	**$3,143,174**	**$3,322,831**	**$3,347,811**

	K	L	M	N	O	P	Q	R	S
606,000 cu.yd. earth excavation above m. h w...	$2.45	$2.42	$2.45	$2.75	$2.75	$3.00	$3.10	$3.10	$3.05
800 cu.yd. earth excavation above and below m. h. w. sewers	3.00	2.42	2.45	3.50	2.75	3.00	3.10	5.50	3.05
30 front ft. maintaining and underpinning buildings	50.00	40.00	40.00	40.00	50.00	30.00	50.00	100.00	60.00
Maintaining, moving and restoring slocum statue..	4000.00	8000.00	3000.00	5000.00	2000.00	8000.00	10,000.00	5000.00	2500.00
Maintaining, moving and restoring Maxwell tablet boulder	1000.00	5000.00	1000.00	750.00	1000.00	1000.00	1000.00	1000.00	600.00
98 maintaining, protecting and preserving trees..	60.00	175.00	100.00	50.00	10.00	200.00	51.00	50.00	150.00
138 replacing trees	65.00	125.00	150.00	90.00	10.00	100.00	50.00	80.00	120.00
89,400 cu.yd. concrete masonry	8.00	7.90	7.70	6.90	8.00	7.25	8.00	7.25	8.00
6000 cu.yd. protective concrete masonry outside w.p.	8.00	7.00	7.70	6.50	8.00	7.25	8.00	7.25	8.00
20 cu.yd. rubble stone masonry	10.00	7.00	7.00	7.00	8.00	7.00	8.00	10.00	7.00
20 cu.yd. dry rubble masonry	10.00	5.00	4.00	6.00	8.00	5.00	6.00	10.00	7.50
20 cu.yd. brick masonry	20.00	15.00	15.00	14.75	15.00	15.00	15.00	25.00	20.00
50 cu.yd. removal and disposal of foundations	6.00	15.00	10.00	4.00	8.00	4.00	5.00	50.00	5.00
70 cu.yd. hollow terra cotta brick or tile masonry	15.00	15.00	15.00	15.00	15.00	15.00	15.00	20.00	16.00
1000 bbl. grout of portland cement	1.50	2.50	2.50	2.65	1.00	2.00	1.50	3.00	2.50
1000 lin.ft. timber piles	0.25	0.25	0.50	0.50	0.25	0.20	0.25	1.00	1.00
2 M. ft. b.m. timber foundations	75.00	30.00	60.00	90.00	35.00	45.00	50.00	100.00	80.00
50 cu.yd. broken stone or gravel	2.50	2.50	2.50	2.50	2.00	2.50	2.00	3.00	3.00
14,700 sq.yd. waterproofing, 1-ply	0.41	0.40	0.45	0.45	0.35	0.40	0.40	0.45	0.40
100 sq.yd. waterproofing, 2-ply	0.84	0.70	0.60	0.80	0.60	0.65	0.65	0.60	0.80
39,800 sq.yd. waterproofing, 3-ply	1.00	1.00	0.95	0.90	0.75	0.75	1.00	0.90	1.10
100 sq.yd. waterproofing, 4-ply	1.25	1.30	1.20	1.25	1.25	1.00	1.25	1.30	1.60
100 sq.yd. waterproofing, 5-ply	2.00	1.60	1.50	1.70	1.50	1.25	1.50	1.50	1.80
100 sq.yd. waterproofing, 6-ply	2.25	1.90	1.80	3.00	2.00	1.50	1.90	1.75	2.00
100 sq.yd. waterproofing, dry ply	0.50	0.40	0.30	0.40	0.35	0.25	0.30	0.45	0.20
2000 cu.yd. brick in asphalt mastic	25.00	16.00	25.00	24.00	20.00	20.00	25.00	25.00	24.00
50 lin.ft. vitrified drain pipe, 12-in	2.00	1.00	0.90	0.85	0.75	1.00	0.70	1.50	1.20
50 lin.ft. vitrified drain pipe, 10-in	1.80	0.85	0.80	0.75	0.65	0.80	0.60	1.25	1.00
50 lin.ft. vitrified drain pipe, 8-in	1.70	0.75	0.60	0.70	0.50	0.60	0.50	1.00	0.80
50 lin.ft. vitrified drain pipe, 6-in	1.60	0.65	0.40	0.65	0.45	0.50	0.40	1.00	0.70
50 lin.ft. vitrified drain pipe, 4-in	1.50	0.55	0.30	0.60	0.40	0.40	0.30	1.00	0.50
50 lin.ft. c.i. drain pipe, 6-in	3.00	2.00	1.25	1.40	1.00	1.00	1.00	2.00	1.50
50 lin.ft. c.i. drain pipe, 4-in	2.50	1.50	0.80	1.10	0.50	0.90	0.60	1.50	1.00
200 lin.ft. c.i. drain pipe, 10-in	2.00	4.00	2.00	2.25	1.75	1.75	1.50	3.00	2.00
100 lin.ft. c.i. pipe and fittings, 3-in. extra heavy..	0.85	1.00	0.90	1.00	1.00	1.00	0.75	1.25	1.00
5100 lin.ft. c.i. pipe and fittings, 4-in. extra heavy.	1.25	1.50	1.00	1.25	1.25	1.00	1.00	1.25	1.20
300 lin.ft. c.i. pipe and fittings, 6-in. extra heavy..	1.35	2.00	1.50	1.60	1.50	1.50	1.25	1.75	1.60
200 lin.ft. c.i. pipe and fittings, 8-in. extra heavy..	2.00	3.00	2.00	2.25	2.50	1.75	2.00	2.00	2.00
442,000 duct ft. tunnel ducts	0.11	0.10	0.10	0.11	0.11	0.10	0.11	0.11	0.12
28,400 duct ft. railroad ducts	0.15	0.20	0.14	0.16	0.15	0.15	0.11	0.15	0.18
5300 tons riveted steel	61.00	62.00	65.00	64.50	60.00	57.00	63.00	62.00	68.00
7070 tons steel beams and shapes	54.00	55.00	57.00	53.50	50.00	50.00	57.00	55.00	62.00
960 tons steel rods and bars	42.00	45.00	55.00	51.50	55.00	55.00	50.00	100.00	70.00
100 tons miscellaneous iron castings	75.00	60.00	65.00	60.00	70.00	75.00	50.00	100.00	70.00
1 ton miscellaneous sewer irons	100.00	75.00	70.00	100.00	100.00	100.00	50.00	150.00	70.00
200 lb. special wire forms	0.10	0.25	0.10	0.20	0.10	0.25	0.10	0.12	0.25
12,900 lin.ft. seasoned oak or ash hand rail 1¾-in..	0.30	0.35	0.40	0.22	0.45	0.35	0.75	0.50	0.30
16,300 sq.ft. steel gratings for ventilation	1.40	1.60	1.60	1.45	1.25	1.40	1.50	1.50	1.75
3040 sq.ft. vault lights	1.25	1.20	1.50	1.10	1.00	1.50	1.50	1.50	2.00
680 sq.yd. sidewalks restored	2.50	1.75	2.00	1.50	2.00	2.00	2.00	2.50	3.00
100 sq.yd. repavement of roadways, macadam	1.50	1.25	1.25	1.45	2.00	2.00	1.50	4.00	1.50
1000 sq.yd. repavement of roadways, asphalt	2.50	2.50	2.75	2.50	2.50	2.50	2.50	3.50	2.75
900 sq.yd. repavement of roadways, granite block.	2.50	1.75	2.75	2.25	2.50	2.00	2.50	3.50	3.00
11,300 sq.yd. repavement of roadways, Belgian block	1.00	1.75	3.00	1.25	1.50	1.50	0.75	3.25	1.00
1000 sq.yd. repavement of roadways, asphalt block	2.50	3.00	3.00	2.55	2.50	2.00	2.50	3.00	3.00
100 lin.ft. new bluestone curb	2.00	1.50	1.00	1.65	1.50	1.50	1.00	2.00	1.50
100 lin.ft. new 8-in. granite curb	3.00	3.00	1.20	2.50	2.00	2.50	2.00	3.00	1.50
140 sq.yd. repavement of roadways, brick	3.75	3.00	3.00	2.25	3.00	3.00	3.00	3.50	3.50
19,700 sq.yd. repavement of roadways, macadam and asphalt surface	1.25	1.50	1.50	1.45	1.50	2.00	1.50	3.00	1.25
4800 sq.yd. park surface restored	2.00	2.00	2.00	1.00	1.00	1.00	1.00	4.00	2.00
12,500 lin.ft. electric conduits, ¾-in. w.i.	0.20	0.30	0.15	0.21	0.15	0.20	0.20	0.20	0.25
750 lin.ft. electric conduits, 1½-in. w.i.	0.32	0.60	0.30	0.30	0.25	0.30	0.30	0.35	0.30
750 lin.ft. electric conduits, 2-in. w.i.	0.40	0.75	0.40	0.45	0.30	0.40	0.40	0.45	0.30
4400 lin.ft. electric conduits, 1-in. w.i.	0.30	0.40	0.25	0.25	0.20	0.25	0.25	0.30	0.25
1100 c.i. outlet boxes	0.90	1.00	1.00	0.90	1.00	1.00	0.75	1.25	1.00
200 lin.ft. c.i. pipes and fittings, 6-in. extra heavy	3.00	2.00	1.50	1.60	1.50	1.50	1.50	2.00	1.50
150 lin.ft. c.i. pipes and fittings, 3-in. extra heavy	2.50	1.00	0.90	1.00	1.00	1.00	0.75	1.50	1.00
100 lin.ft. vitrified pipe sewer, 12-in	3.00	2.50	3.00	2.25	2.40	2.50	1.50	2.00	3.00
100 lin.ft. vitrified pipe sewer, 15-in	3.25	3.00	3.70	2.80	2.75	3.00	1.75	3.00	3.50
100 lin.ft. vitrified pipe sewer, 18-in	3.50	3.50	4.20	3.40	3.25	3.75	2.00	4.00	4.00
100 lin.ft. vitrified pipe sewer, 20-in	4.00	4.00	4.50	4.00	4.00	4.00	2.25	5.00	4.50
100 lin.ft. vitrified pipe sewer, 22-in	4.25	4.50	5.00	4.50	4.50	4.50	2.50	6.00	5.00
200 lin.ft. vitrified pipe sewer, 24-in	6.00	5.00	5.20	5.10	5.00	5.00	2.75	6.00	5.50
3 tons c.i. sewer pipe, straight	75.00	50.00	45.00	60.00	40.00	60.00	40.00	100.00	75.00
1 ton c.i. sewer pipe, special	105.00	100.00	70.00	100.00	75.00	90.00	70.00	150.00	100.00
80 lin.ft. pipe sewer egg-shaped 22½ in. x 15 in.	5.00	4.00	5.50	4.50	4.50	6.00	2.50	10.00	5.00
250 lin.ft. masonry sewer, 3 ft. 6 in. x 2 ft. 4 in.	8.00	6.00	6.50	7.25	6.25	8.00	4.00	10.00	7.00
160 lin.ft. masonry sewer, 3 ft. 9 in. x 2 ft. 6 in.	8.25	7.00	7.00	7.50	7.00	9.00	4.50	10.00	9.00
50 lin.ft. masonry sewer, 4 ft. by 2 ft. 8 in.	12.00	9.00	7.50	12.00	7.50	10.00	5.00	12.00	12.00
125 lin.ft. masonry sewer, 3 ft. 9 in.	12.50	9.00	6.10	7.50	8.00	11.00	5.00	10.00	12.00
780 lin.ft. maintaining electric R.R. single track.	10.00	4.00	6.00	5.50	2.00	5.00	5.00	10.00	11.50
Maintaining and underpinning subsurface railroad	17,000.00	13,500.00	20,000.00	21,000.00	2000.00	10,000.00	15,000.00	25,000.00	26,000.00
100 lin.ft. water pipe, 6-in.	2.00	1.00	0.80	1.00	0.40	1.00	1.00	2.50	1.00
100 lin.ft. water pipe, 8-in.	2.25	1.25	1.10	1.25	0.60	1.50	1.25	2.75	1.50
100 lin.ft. water pipe, 12-in.	3.00	1.50	1.50	1.75	0.75	2.00	1.50	3.00	2.25
100 lin.ft. water pipe, 16-in.	3.50	2.00	2.00	2.50	1.00	2.50	2.50	4.00	3.50
250 lin.ft. water pipe, 20-in.	3.75	2.50	2.50	4.00	1.25	3.50	2.75	4.00	4.60
500 lin.ft. water pipe, 30-in.	5.00	3.50	4.00	5.00	2.50	9.00	5.00	6.00	6.00
500 lin.ft. water pipe, 36-in.	7.00	5.00	5.00	6.00	3.00	12.00	6.00	8.00	9.00
250 lin.ft. water pipe, 48-in.	9.00	9.00	6.50	8.00	4.00	20.00	12.00	10.00	12.00
20 service connections for water-pipes	20.00	25.00	12.00	20.00	25.00	20.00	10.00	25.00	25.00
100 lin.ft. gas-pipe, 4-in. c.i.	2.00	1.00	0.75	1.00	0.40	0.75	0.50	2.00	1.00
100 lin.ft. gas-pipe, 6-in. c.i.	2.25	1.25	1.00	1.15	0.50	1.00	0.75	3.00	1.50
100 lin.ft. gas-pipe, 10-in. c.i.	2.50	1.50	1.50	1.25	0.60	1.50	1.25	4.00	2.50
100 lin.ft. gas-pipe, 12-in. c.i.	3.00	2.00	1.80	1.50	0.75	1.75	1.50	5.00	3.50
100 lin.ft. gas-pipe, 16-in. c.i.	4.00	2.50	2.50	2.00	1.00	2.75	1.60	6.00	4.60
400 lin.ft. by-passing pipe, 6-in. w.i.	3.00	4.00	2.20	2.75	2.50	3.50	3.00	4.00	4.00
100 lin.ft. by-passing pipe, 8-in. w.i.	4.50	5.00	2.50	3.00	3.00	3.75	3.25	6.00	5.00
4150 lin.ft. by-passing pipe, 12-in. w.i.	4.25	6.00	4.00	3.75	3.50	4.00	4.00	7.00	5.00
150 lin.ft. by-passing pipe on trestle, 16-in. w.i.	8.00	10.00	5.00	4.75	4.00	5.00	8.00	15.00	10.00
150 lin.ft. by-passing pipe on trestle, 8-in. w.i.	6.00	8.00	3.00	3.00	2.50	4.00	2.00	10.00	5.00
130 lin.ft. trestle for by-passing pipe	10.00	9.00	3.00	5.00	3.00	3.00	2.50	8.00	6.00
20 service connections for gas pipes	20.00	25.00	12.00	20.00	25.00	15.00	10.00	20.00	30.00
75 tons c.i. hub and spigot pipe, straight	50.00	35.00	35.00	60.00	35.00	45.00	30.00	50.00	40.00
18 tons c.i. hub and spigot pipe, special	75.00	75.00	70.00	75.00	65.00	75.00	60.00	100.00	80.00
2000 duct ft. electric ducts and conduits	0.50	0.50	0.50	0.25	0.50	0.50	0.35	1.00	0.75
500 lin.ft. electric ducts and conduits w.i. pipe, 3-in.	2.00	0.75	0.45	0.55	0.50	0.60	0.50	1.00	0.75
500 lin.ft. electric ducts and conduits w.i. pipe, 3½-in.	2.00	1.00	0.50	0.70	0.50	0.70	0.60	1.00	0.80
20 service connections for electric ducts	30.00	25.00	12.00	20.00	25.00	25.00	10.00	50.00	30.00
1000 duct ft. wooden electric ducts and conduits..	0.90	1.00	0.50	0.75	1.25	1.00	0.50	1.00	1.25
Extended totals	**$3,357,808**	**$3,358,111**	**$3,409,436**	**$3,445,596**	**$3,445,680**	**$3,583,550**	**$3,772,697**	**$3,860,786**	**$3,888,387**

Contracts to Be Let

Bids received until May 17, 1915.

Contract 8—Nepaug Reservoir

Hartford, Conn.

Sealed proposals, addressed to the Board of Water Commissioners of the City of Hartford, for the construction of a new gravel surface road north of Nepaug Reservoir in the Town of New Hartford, Conn., will be received at the office of the Board, City Hall, Hartford, until 3:00 p.m., Monday, May 17, 1915.

Contract 8 comprises the construction of a gravel road about 1½ miles long through new country. The road will have a travel path 14 feet wide with 8 inches of gravel surfacing, together with the necessary culverts and guard fences.

Plans and specifications may be obtained at the office of the Chief Engineer, Pilgard Building, Hartford, Conn., on deposit of $5.00, which amount will be refunded if the plans and specifications are returned in good order before June 17, 1915. Specifications used in making a bid will be considered as returned.

A certified check or cashier's check for $2,000 must accompany each bid and the successful bidder will be required to furnish bonds in the sum of $20,000. The right is reserved to reject any and all bids.

It is expected to let contracts in the near future for the following work, which is in the immediate vicinity of this location and which may be looked over by prospective bidders at the same time that the road work on Contract 8 is examined:

Contract 9—East Dike. Contract probably will be advertised about June 1st and calls for the construction of an earth dam about 25 feet high and 600 feet long, containing about 28,000 cubic yards of earth embankment and 1,500 cubic yards of masonry core wall.

Contract 10—Richards Corner Dam. Contract probably will be advertised about June 15th and calls for the construction of an earth dam 70 feet high and 800 feet long, containing about 250,000 cubic yards of soil and gravel filling, 13,000 cubic yards of masonry core wall, 10,000 cubic yards of rock excavation and a concrete conduit and stream control for a drainage area of 62 square miles.

Later in the year a contract will be let for clearing the entire Nepaug Reservoir area of about 900 acres and grubbing about 125 acres of shore line.

BOARD OF WATER COMMISSIONERS,
WALTER S. GARDE, President.
FRED D. BERRY, Secretary.
CALEB MILLS SAVILLE, Chief Engineer.

⁂

Bids received until May 14, 1915.

To Paving Contractors

Greenville, S. C.

Sealed proposals on blank forms furnished by the City, and addressed to the City Engineer, will be received by the Mayor, City Council and Paving Commission until 11:00 A.M., May 14th, 1915, for furnishing material, equipment, labor, etc., to construct complete street and sidewalk paving in the City of Greenville, S. C.

The work consists of approximately 70,000 sq.yds. of Street Paving; 20,000 sq.yds. of Sidewalk Paving; 25,000 lin.ft. of Granite Curb; 10,000 lin.ft. of combination Cement Curb and Gutter; also, necessary storm sewers, catch basins, manholes, etc., to make a complete job.

Each bid on proposal No. 1 must be accompanied by a certified check made payable to the City Clerk and Treas. for not less than five per cent. (5%) of the total amount of bid. Each bid on proposal No. 2 must be accompanied by a certified check made payable same as above for not less than $2,000.00.

The right is reserved by the City to reject any or all bids.

Plans and Specifications can be seen at the Office of the City Engineer, Greenville, South Carolina.

JOHN B. MARSHALL, Mayor.
G. FRANK LEAGUE, City Clerk & Treas.
C. P. BALLENGER, City Engineer.

Bids received until May 11, 1915.

Sewers and Disposal Plant

Palisades Park, N. J.

SEALED PROPOSALS will be received by the Mayor and Council of the Borough of Palisades Park, N. J., at the Borough Hall, on Tuesday, May 11th, 1915, at 8 o'clock P.M., for the construction of a Sedimentation tank of the Imhoff type, Sludge drying beds and all other appurtenances, also, for a system of sewers, consisting of

about 1430 ft. 20 inch Pipe sewer.
" 4380 " 15 " " "
" 1450 " 12 " " "
" 4940 " 10 " " "
" 28390 " 8 " " "
" 150 Manholes,

and siphon under tracks of Northern Railroad, etc.

Plans and specifications can be seen at the office of Lemuel Lozier, Borough Engineer, Central Boulevard and Broad Avenue, Palisades Park, N. J.

Prospective bidders can obtain a copy of the plans and specifications for a deposit of Ten ($10.00) Dollars, which deposit will be refunded upon the return of the plans and specifications in good condition.

All proposals must be made upon the forms furnished and in full conformity with all the requirements and conditions expressed therein.

The work will be divided into two sections, "A," including the sewers, manholes, etc., "B," including the sedimentation tank, drying beds, etc.

Bidders are invited to offer proposals either for Section "A" or Section "B" or for both Section "A" and "B."

A certified check drawn to the order of the Mayor and Council of the Borough of Palisades Park in the sum of Five Thousand Dollars ($5000.00) must accompany each proposal for Section "A," in the sum of Two Thousand ($2000.00) Dollars for Section "B," or in the sum of Seven Thousand ($7000.00) Dollars for both Sections "A" and "B" as surety that contract will be entered into if proposal is accepted.

A Surety Company bond equal to the amount of the contract will be required in each contract.

Bidders are particularly notified that no bids will be received after the time named above, 8 o'clock P.M., May 11th, under any circumstance.

The Mayor and Council of Palisades Park reserve the right to reject any or all bids.

BENJAMIN E. BUDDS, Mayor.
GEORGE F. WILSON,
Chairman Sewer Committee.
EDGAR R. DAVIS, Borough Clerk.

⁂

Bids received until May 17, 1915.

Concrete Reservoir

Salem, Mass.

Sealed proposals will be received by the Director of Public Works of the City of Salem, Mass., until ten o'clock A.M., May 17, 1915, for the construction of a covered concrete reservoir of 10,000,000 gallons capacity.

Plans may be seen and specifications obtained at the office of the City Engineer at Salem, Mass., or at the office of William S. Johnson, Consulting Engineer, 101 Tremont Street, Boston, Mass. A deposit of five dollars ($5.00) will be required for copies of the plans, which deposit will be refunded upon the return of the plans in good condition within two weeks after the bids are opened.

Each bid must be accompanied by a certified check for three thousand dollars ($3,000) payable to the City of Salem. The bidder to whom the contract is awarded will be required to furnish a bond in the sum of twenty-five thousand dollars ($25,000).

The right is reserved to reject any or all bids at the discretion of the Director.

P. J. KELLEY,
Director of Public Works.
GEORGE F. ASHTON, City Engineer.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

STEADY GAIN IN EASTERN BUILDING

Contemplated building operations in 23 cities in the Eastern States from plans filed in April show a gain of $4,000,000 or 16% compared with the same month last year. This gain is progressive for in March it was only slightly over $1,000,000, in February $3,000,000 and in January about the same. It is the largest gain recorded for more than a year. For the first four months the gain in these cities aggregated $9,000,000 or 11%.

A falling off of $1,000,000 is recorded in 25 Central cities, compares with one of more than $3,000,000 last month and nearly as much in each of the two previous ones. The loss of $1,300,000 in 14 Southern cities compares with one of over $2,500,000 in the previous month. Even on the Pacific coast in the Western States there is a loss of slightly more than $1,000,000 in April compared with $4,000,000 last month and nearly $19,000,000 during the first four months of the year.

EASTERN STATES

	Month of April		First Four Months of Year	
	1915	1914	1915	1914
Albany, N. Y.	$285,745	$1,156,595	$1,246,005	$2,454,210
Bridgeport, Conn.	1,493,413	233,844	2,311,149	1,200,882
Buffalo, N. Y.	1,190,000	1,280,000	2,708,000	2,871,000
Elizabeth, N. J.	141,575	193,774	359,581	576,480
Hartford, Conn.	582,602	447,143	1,609,804	1,284,540
Hoboken, N. J.	57,600	105,473	431,790	359,122
Jersey City, N. J.	694,000	26[illegible],171	1,663,870	1,152,716
Newark, N. J.	949,846	754,142	2,888,337	2,676,529
New Bedford, Mass.	437,520	392,150	1,193,782	1,336,449
New Haven, Conn.	465,320	249,485	2,097,800	1,230,939
New York, N. Y.				
Bronx	2,917,300	1,795,975	10,089,475	5,946,130
Brooklyn	4,808,365	4,890,150	11,636,665	13,849,400
Manhattan	5,834,740	4,371,000	22,781,765	15,817,490
Queens	2,374,065	2,269,625	6,307,466	6,092,502
Paterson, N. J.	124,426	293,448	332,511	489,114
Philadelphia, Penn.	3,449,900	3,075,905	12,323,700	11,297,825
Pittsburgh, Penn.	974,283	1,158,225	2,055,385	5,298,446
Portland, Maine	177,734	85,000	....	....
Reading, Penn.	111,375	87,200	383,900	768,975
Rochester, N. Y.	1,159,257	1,156,109	2,786,581	2,658,416
Scranton, Penn.	118,952	157,383	316,696	372,845
Springfield, Mass.	365,475	450,460	1,884,833	1,404,713
Syracuse, N. Y.	271,474	364,475	1,171,105	591,180
Utica, N. Y.	573,365	277,005	729,795	377,390
Wilkes-Barre, Penn.	119,746	86,194	....	....
Worcester, Mass.	542,860	451,522	1,040,693	1,393,046
Totals	$30,221,216	$26,044,253	$90,350,691	$31,479,738

CENTRAL STATES

	Month of April		First Four Months of Year	
	1915	1914	1915	1914
Akron, Ohio	$355,410	$627,265	$875,755	$1,209,980
Canton, Ohio	217,520	107,100	477,495	292,120
Chicago, Ill.	6,820,700	9,465,800	24,756,650	27,401,750
Cincinnati, Ohio	1,317,485	964,425	2,624,604	2,725,660
Cleveland, Ohio	3,076,385	2,594,115	9,948,425	9,361,000
Columbus, Ohio	465,055	683,555	1,222,705	1,754,205
Davenport, Iowa	108,022	256,998	237,682	807,873
Des Moines, Iowa	225,223	181,178	461,983	621,628
Detroit, Mich.	3,012,790	2,930,860	8,079,305	10,888,325
Duluth, Minn.	340,178	440,491	679,100	1,089,012
Evansville, Ind.	70,198	179,717	627,010	516,824
Ft. Wayne, Ind.	238,520	388,550	....	....
Grand Rapids, Mich.	298,394	135,934	743,195	1,798,522
Indianapolis, Ind.	776,511	1,036,716	2,240,517	2,594,380
Kansas City, Kan.	147,560	113,995	403,685	376,121
Kansas City, Mo.	1,125,170	735,665	3,257,975	4,190,260
Milwaukee, Wis.	1,173,693	1,353,040	2,729,319	2,969,204
Minneapolis, Minn.	1,951,035	1,912,290	4,620,160	5,008,715
Oak Park, Ill.	219,560	347,660	744,680	771,615
Omaha, Neb.	389,420	593,035	1,171,455	1,315,815
Peoria, Ill.	317,305	179,650	704,230	806,010
St. Louis, Mo.	986,719	1,734,412	4,051,332	4,946,051
St. Paul, Minn.	829,914	1,204,759	3,148,850	4,434,224
Toledo, Ohio	959,042	772,144	2,714,204	2,170,366
Youngstown, Ohio	219,505	470,035	579,010	773,437
Totals	$25,641,314	$26,672,389	$77,099,345	$88,823,697

SOUTHERN STATES

	Month of April		First Four Months of Year	
	1915	1914	1915	1914
Atlanta, Ga.	$446,337	$629,844	$1,459,511	$1,847,844
Birmingham, Ala.	169,701	318,144	533,144	1,021,424
Chattanooga, Tenn.	44,295	219,490	147,412	494,995
Dallas, Tex.	492,175	565,335	1,104,055	2,354,518
Ft. Worth, Tex.	81,495	214,050	343,755	829,648
Houston, Tex.	178,833	352,638	615,666	1,104,782
Louisville, Ky.	282,400	451,820	1,160,235	1,580,485
Memphis, Tenn.	438,355	420,080	987,828	1,427,225
New Orleans, La.	339,571	218,350	778,278	857,804
Norfolk, Va.	163,218	312,630	636,506	977,075
Richmond, Va.	370,114	557,131	1,073,964	1,557,250
San Antonio, Tex.	131,955	324,760	432,380	1,425,115
Tampa, Fla.	90,440	96,290	289,690	445,235
Washington, D. C.	1,029,020	851,309	3,105,007	3,651,088
Totals	$4,240,818	$5,531,871	$12,667,431	$19,574,488

WESTERN STATES

	Month of April		First Four Months of Year	
Denver, Colo.	$326,590	$225,403	$850,425	$972,536
Los Angeles, Calif.	1,566,804	1,898,304	4,112,217	6,627,321
Oakland, Calif.	530,302	405,540	1,575,659	1,620,546
Portland, Ore.	559,415	769,500	1,747,600	2,702,595
Salt Lake City, Utah	252,852	321,200	695,592	862,800
San Diego, Calif.	80,475	240,805	515,555	1,030,674
San Francisco, Calif.	1,646,374	1,707,064	4,728,145	17,587,635
Seattle, Wash.	837,105	1,227,930	2,289,245	3,911,285
Spokane, Wash.	126,725	214,610	343,095	359,115
Tacoma, Wash.	47,889	105,303	356,688	520,096
Totals	$6,074,511	$7,115,659	$17,214,221	$36,194,603

RAILWAYS

Florida—Charlotte Harbor & Northern Ry.—This company contemplates the extension of its line from Ridgewood to Bartow, about four miles. L. M. Fonts, Boca Grande, Fla., is Vice-Pres. and Gen. Mgr.

✚Florida—Seaboard Air Line Ry.—It is reported that this company has awarded a contract to A. F. LANGFORD for the extension of its Lake Wales line from Bayard toward Lake Kissimmee, about 16 miles.

Mississippi—Surveys have been started for the construction of the proposed railway from Yazoo City to Carthage, Miss., about 62 miles. R. H. Douthat, Secy., Yazoo Commercial Club, is interested.

Louisiana—Texas & Pacific Ry.—Surveys are being made by this company for additional yard tracks at Alexandria, La. C. H. Chamberlain, Dallas, Tex., is Ch. Engr.

Tennessee—Whiting Lumber Co.—The construction of a railway from Butler, Tenn., to the summit of the Blue Ridge is contemplated by this company. J. M. Lacy, Elizabethton, Tenn., is Supt. of Constr

Missouri—Missouri, Oklahoma & Gulf Ry.—Plans are being made by this company for the extension of its line from Joplin to Kansas City. Alexander New, Kansas City, Mo., is Receiver.

Texas—Gulf, Colorado & Santa Fé Ry.—This company plans to expend $300,000 for the improvement of its system in Texas. F. Merritt, Galveston, Tex., is Ch Engr.

Texas—International & Great Northern R.R.—This company has applied for permission to issue $1,000,000 in receivers' certificates for the purpose of making extensive repairs to its roadbed and tracks in Texas, on account of flood damages. James A. Baker and Cecil A. Lyon, Houston, are Receivers.

Texas—T. J. O'Donnell, Sweetwater, Tex. and W. L. Carwile, Dallas, Tex., are promoting the construction of a railway between Midland and Lamesa, about 55 miles. For a bonus of $25,000 they offer to locate the shops of the proposed road at Midland.

Nevada—Nevada Short Line R.R.—Plans are being prepared by this company for the extension of its line from Lower Rochester to Rochester, Nev. A. A. Codd, Reno, Nev., is Pres. and Gen. Mgr.

Arizona—Arizona Eastern R.R. Co.—According to press reports this company contemplates electrifying its division from Phoenix to Mesa, Ariz. C. M. Scott, Phoenix, is Supt.

✚California—California Southern Ry.—This company has awarded the contract to the BLYTHE CONSTRUCTION CO., Los Angeles, for the construction of a 41-mile railway from Blythe Junction to the lower Palo Verde Valley. G. W. Rice, Blythe Junction, is Ch. Engr.

ELECTRIC RAILWAYS

Lowell, Mass.—The Bay State St. Ry. Co. is considering the extension of its Varnum Ave. line from Lexington Ave. to Fowler St. R. S. Goff, Boston, is Vice-Pres. and Gen. Mgr.

New Rochelle, N. Y.—The Westchester Electric R.R. Co. has applied for a franchise to extend its Winyah Ave. line from North Ave. to the Pelham line; also for a franchise to double-track its line on Franklin Ave. William B. Wheeler, Mt. Vernon, is Supt.

Walden, N. Y.—Thomson & Wooster, Walden, is makng surveys for the construction of the proposed electric railway to connect the line of the Orange County Traction Co., Walden, with that of the Wallkill Transit Co., Goshen.

West New York, N. J.—The Board of Directors of the Board of Trade are agitating the construction of a crosstown trolley line to the West New York Ferry. C. B. Herman, Bergenline Ave. and 17th St., West New York, is interested.

Germantown, Penn.—The Business Men's Association is considering the construction of an electric railway in East Germantown.

✚McConnellsburg, Penn.—The McConnellsburg and Ft. London Ry. Co. has awarded the contract to REED & CO., Hazelton, for the construction of an electric railway from McConnellsburg to Ft. London. Noted Mar. 11.

Mayfield, Ky.—Plans are being made to revive the project to construct an electric railway from Mayfield, Ky., to Humboldt, Tenn. R. H. McNeely, Paducah, Ky., is interested.

Columbus, Ohio—The City Council has granted a franchise to the East Linden Electric Ry. Co. to construct an electric railway on Leonard and Joyce Ave.

Joliet, Ill.—Work will soon be started on the construction of the proposed extension of the Hickory St. line in Joliet from Smith St. to Theilers Park by the Chicago & Joliet Electric Ry. Co. J. R. Blackhall, Joliet, is Gen. Mgr.

Quincy, Il.—The Quincy Ry. Co. contemplates the reconstruction of its line on Maine St. from Eighth to 18th St. H. J. Vance, Peoria, is Pur. Agt.

Iowa City, Iowa—The Iowa City Electric Ry. Co. is making plans for the extension of its line to the Manville Heights Addition. J. O. Schulze, Iowa City, is Pres., Gen. Mgr. and Pur. Agt.

Kansas City, Mo.—The Kansas City Ry. & Light Co. plans to construct 14 miles of double-track extensions in Kansas City. John M. Egan is Pres.

Springfield, Mo.—The Springfield Ry. & Light Co. contemplates the construction of an extension of the Monroe St. line to Phelps Grove Park, Springfield. Charles H. Guckel is Gen. Mgr.

Cleburne, Tex.—John W. Floore, Sr., who recently purchased the street railway system of the Cleburne St. Ry. Co. at receiver's sale will make extensive improvements to the property. The system embraces six miles of track.

Corpus Christi, Tex.—J. H. Caswell, San Diego, Calif., and associates plan to construct a system of interurban electric railways in this section and to build a local system of street railways. The interurban lines will run from Corpus Christi to Kingsville, via Bishop; from Corpus Christi to Portland and from Corpus Christi to Oso. The construction of a large electric-power plant is planned in connection with the project.

✚Glen Rose, Tex.—(Official)—The Glen Rose & Walnut Springs Ry. Co. has awarded the contract for the construction of its proposed electric railway from Glen Rose to Walnut Springs, about 11 miles, to the RAIL ROAD CONSTRUCTION CO., 80 Fifth Ave., New York, N. Y. Noted Oct. 1.

Houston, Tex.—The Houston, Richmond & Western Traction Co. has been organized for the purpose of constructing an interurban electric railway from Houston to Richmond, about 35 miles. The incorporators are Edward Kennedy, W. W. Thomas and J. C. Eganhouse.

Fresno, Calif.—The Fresno Interurban Ry. Co. is preparing to extend its electric line to the Gould Colony and build a spur track to the Barton Winery.

Windsor, Ont.—The Sandwich, Windsor & Amherstburg St. Ry. Co. has applied for permission to construct a loop on Ferry Ave. in Windsor. James Anderson, Windsor, is Gen. Mgr. and Pur. Agt.

Brandon, Man.—The Brandon Municipal Ry. will make the following extensions: Princess Ave. from 22nd St. to 24th St.; from the present terminals on Victoria Ave. and Princess Ave. east to Percy St.; on 18th St., from Victoria Ave. to College Ave. and along College Ave. to 13th St. R. E. Speakman is Engr. Noted May 6.

LIGHT, HEAT AND POWER

Standish, Maine—The Cumberland County Power & Light Co., Portland, has made application for a franchise to supply electricity to the town of Standish. A. H. Ford, Portland, is Gen. Mgr. of the company.

Reading, Mass.—Press reports state that the town of Reading has decided to extend its municipal electric-light service to Lynnfield, North Reading and Wilmington. Arthur G. Sias, 179 Main St., Reading, is Mgr. and Supt. of the Reading municipal plant.

Exeter, R. I.—(Official)—Bids will be received until 10 a.m., May 27, by the Board of Control and Supply, Room 18, State House, Providence, for the installation of central plant equipment and electrical work, steam work in connection with central plant, laundry equipment, water pipe extension and sewer extension for the Rhode Island School for the Feeble Minded at Exeter. William A. Schofield is Chn., Gilbert R. Parker is Secy. of the Bd.

Howard, R. I.—(Official)—Bids will be received until 10 a.m., May 27, by the Board of Control and Supply, State House, Providence, for a cold storage plant, elevator machinery and equipment for a bakery for the General Storehouse and Bakery at Howard. The Richard D. Kimball Co., 6 Beacon St., Boston, Mass., is Engr.

Syracuse, N. Y.—Bids are being received by the Board of Education for the construction of a 50x60-ft. boiler house and equipment in connection with the new vocational high school. A. E. Larkin is Pres. of the Bd.

Trenton, N. J.—The Eureka Flint & Spar Co. is preparing to build a one-story, 36x85-ft. power house.

Scranton, Penn.—It is reported that the Scranton Electric Light Co. will spend about $125,000 for improvements to its steam heating system. About 20,000 ft. of steam mains will be laid. D. D. Campbell is Vice-Pres. and Gen. Mgr.

Walkersville, Md.—The City Council has contracted with the Hagerstown & Frederick Ry. Co. to furnish the town with electricity. The company will build a transmission line, costing about $4000, from Frederick to Walkersville, a distance of five miles.

Kenova, W. Va.—It is reported that the Consolidated Light, Heat & Power Co. plans to double the capacity of its power station. A turbine to generate 8000 hp. and two Babcock & Wilcox boilers will be installed. W. W. Magoon, Huntington, is Gen. Mgr. of the company.

Ocala, Fla.—It is reported that the City Council has engaged Twombly & Henney, Consult. Engr., 55 Liberty St., New York, N. Y., to prepare plans for the improvement of the municipal electric-light plant and water-works system. The estimated cost of the work is $75,000. J. C. Caldwell, Ocala, is Supt. of the municipal light plant.

Cincinnati, Ohio—(Official)—Bids will be received until noon, May 24, by the Board of Education, City Hall, for the installation of electric-lighting systems in the College Hill School, Maple Ave., College Hill, and the Mt. Airy School, Colerain Pike and Mt. Airy Rd., Cincinnati. C. W. Handman is Business Mgr. of the Bd.

Dover, Ohio—(Official)—Bids will be received until noon, June 1, by Clifford Pease, Village Clk., for lighting the streets of the village for a period of 10 years.

Richmond, Ind.—It is reported that the City Council has voted in favor of taking over the property of the Richmond Light, Heat & Power Co., to be operated in conjunction with the municipal electric-light plant. B. A. Bescher is City Clk.

Urbana, Ill.—Bids will be received until June 1 by James B. Dibelka, State Arch., 130 North Fifth Ave., Chicago, for electrical work, heating, ventilating and plumbing equipment for the School of Education, Vivarium and Ceramics buildings of the University of Illinois, Urbana.

Manitowoc, Wis.—The Board of Education has received bids for the installation of a new heating system for the Washington School, as follows: George H. Kallies, Manitowoc, $5600; W. S. Patterson & Co., Appleton, $6162; W. A. Bowers Heating Co., Milwaukee, $6984.

Ceresco, Neb.—Bids will soon be received for the construction of a municipal electric-light plant in Ceresco to cost about $5000. G. Johnson is Village Clk. Grant & Fulton, Lincoln, is Consult. Engr. Noted Apr. 1.

Morrill, Neb.—Bids will be received until May 17 by the Village Clerk for the installation of a complete electric-lighting system for the village.

Tekamah, Neb.—A special election will be held May 18 to vote on the question of issuing $15,000, the proceeds of which will be used for the construction of a municipal electric-light plant. M. S. McGrew is City Clk.

Raymond, S. D.—It is reported that the installation of an electric-light plant in Raymond is under consideration.

Abilene, Tex.—Press reports state that the American Public Service Co., which owns the Abilene Gas & Electric Co. plans to extend the local electric service to Clyde, Putnam, Baird, Cisco, and possibly other towns in the vicinity. The plant at Abilene will serve as a distribution point, and will be equipped with two new boilers of 400 hp. each, and a new turbine engine. George H. Caffrey is Mgr. of the Abilene plant.

Maypearl, Tex.—It is reported that the Texas Power & Light Co., Dallas, plans to install an electric-light system in Maypearl.

Windom, Tex.—It is reported that the Texas Power & Light Co., Dallas, has purchased the local electric-light plant, and will remodel and improve the property. F. R. Slater, Dallas, is Gen. Supt. of the Texas Power & Light Co.

Cushing, Okla.—It is reported that the Cushing Public Service Co., recently organized for the purpose of taking over the plant of the Cushing Electric Light & Power Co., will improve the system at once at an estimated cost of $20,000. H. Askin is Mgr.

Sante Fe, N. M.—The Rio Grande Dam, Light & Power Co., Philadelphia, Penn., has applied to James A. French, State Engr. of New Mexico for permission to build a 100-ft. dam in White Rock Cañon, between Cochiti and Buckman, and to use the waters of the Rio Grande River for power development. The company plans to build a hydro-electric plant to supply power to Albuquerque, Sante Fe, Las Vegas and other towns and to irrigation plants in the Estancia Valley.

Casa Grande, Ariz.—The city has granted a franchise to F. H. Brackett and associates for the installation and operation of an electric-power plant. The plant, including the distributing system, is estimated to cost from $150,000 to $200,000. Noted Feb. 4.

Ellensburg, Wash.—All bids received Apr. 5 for the reconstruction of the municipal electric-light plant were rejected by the City Council, and new bids will be received until May 14. Reuben Crimp is City Clk. Noted Feb. 25, Apr. 1 and 29.

Lake Cushman, Wash.—It is reported that George E. Tilden, Seattle, contemplates building a power plant in or near Lake Cushman to furnish electrical service to towns in Chehalis and Pacific Counties.

Portland, Ore.—It is reported that the Portland Gas & Coke Co. is preparing to lay a 16-in. gas main in East Ninth St. The estimated cost is $50,000.

Lakeport, Calif.—The Mt. Konocti Light & Power Co. plans improvements and extensions to its plant and system to cost about $9000. A. V. Joslin, Lakeport, is Mgr.

Stockton, Calif.—Press reports state that the Western States Gas & Electric Co. of California plans to build a new hydro-electric plant on the American River this year. The estimated cost is $75,000. Samuel Kahn, Stockton, is Gen. Mgr.

Taft, Calif.—The California Natural Gas Co. will shortly lay an 8-in. gas line from the Midway to the Kern River district, a distance of 25 miles.

Tehachapi, Calif.—This city has voted a bond issue of $8000 to be used for the installation of a municipal electric-light plant. Noted Apr. 15

Toronto, Ont.—The Toronto Electric Commission plans to build a new substation at Carlaw Ave. and Gerrard St. The estimated cost of the building is $65,000. H. H. Couzens, Toronto, is Gen. Mgr.

Kamloops, B. C.—It is reported that the city will spend about $85,000 in completing its hydro-electric power plant. The system has already cost about $500,000. C. L. Wain is Supt. and Engr. of the plant.

BRIDGES

★Northampton, Mass.—(Official)—The Commissioners of Hampshire County opened bids May 4 for rebuilding two piers and repairing the superstructure of the Connecticut River Bridge between Northampton and Hadley, as follows: (a) superstructure, (b) substructure): Providence Steel & Iron Co., (a) $19,600; Rendle & Stoddard, (b) $24,303; G. F. Austin, (a) and

(b), $47,500; H. P. Cummings Construction Co., (a) $20,887, (b) $56,600; Holbrook, Cabot & Rollins Corporation, (b) $32,750; Eastern Bridge & Structural Co., (a) $21,870; M. I. O'Connor, (b) $34,900; United Construction Co., (a) $22,160; H. P. Converse Co., (a) $25,291, (b) $34,224; Jobson-Gifford Co., (a) $23,575; Fred T. Ley Co., (b) $35,000; Daniel O'Connell's Sons, (a) $24,000, (b) $40,000; McClintic-Marshall Co., (a) $25,270; W. L. Miller, (b) $42,772; C. A. Sibley, (a) $25,650; the Foundation Co., (b) $46,400; Berlin Construction Co., (a) $32,550. Noted Sept. 4 and Dec. 18, 1913; Jan. 7, Feb. 18, Mar. 11 and Apr. 15, 1915.

✚★**Northampton, Mass.**—(Official)—The Commissioners of Hampshire County, on May 10, awarded contracts for rebuilding the Northampton-Hadley Bridge to the HOLBROOK, CABOT & ROLLINS CORPORATION, Boston, at $32,750 for the substructure, and to the PROVIDENCE STEEL & IRON CO., Providence, R. I., at $19,600 for the superstructure. See preceding item.

★✚**Canton, N. Y.**—We are advised by the Concrete-Steel Engineering Co., Park Row Bldg., New York, that the Town of Canton has awarded the contract for the Grasse River Bridge at Canton to the FLOOD & VAN WIRT CO., Hudson Falls, at $25,000. Noted Apr. 15.

✚**Lancaster, N. Y.**—(Official)—The Town Board has awarded the contract for the construction of a reinforced-concrete arch over Cayuga Creek to HOWARD L. MEYER, Bowmansville, N. Y., at $12,520. Nine other bids were received. F. H. Maute is Town Clk. Noted Apr. 22.

Syracuse, N. Y.—(Official)—Bids will be received until 1:30 p.m., May 17, by the City Council for the construction of a bridge over Onondaga Creek at West Taylor St. A bond issue of $12,000 has recently been authorized for this work. W. T. Wooley is City Engr. Noted Apr. 15.

★**Wallkill, N. Y.**—(Official)—Bids will be received until 2 p.m., May 29, by the Town Clerk for the construction of a concrete-steel arch over the Wallkill River. J. Grant Upwright is Town Supt. of Highways. Noted Dec. 31.

Brielle, N. J.—Press reports state that bids will be received until May 27 by the Board of Chosen Freeholders of Monmouth County, Freehold, for the construction of a bridge over a branch of the Manasquan River at Brielle.

★✚**Elizabeth, N. J.**—The Board of Chosen Freeholders of Union County has awarded the contract for the construction of a steel lift bridge over the Elizabeth River at Baltic St. and Trenton Ave., Elizabeth, to the LONG-BROADHURST CO., Hackensack, at $36,843, with $1500 additional if patent chain barriers are used instead of ordinary safety gates. Other bidders were: McHarg-Barton Co., New York, N. Y., $47,700; Lupfer & Remick, Buffalo, N. Y., $37,850; A. E. Smith, Plainfield, $39,400; Lincoln-Steele-Fleming Co., New York, $49,840; Sterling Engineering Co., Chicago, Ill., $52,250; Penn Bridge Co., Beaver Falls, Penn., $38,592; Snare & Triest Co., New York, $61,725; Linde-Griffith Co., Newark, $44,995; F. W. Schwiers, Jr., Co., New York, $46,478; Hudson River Co., Inc., New York, $36,915; Stillman-Delehanty-Ferris Co., Jersey City, $42,995; Toole & Lunderlin, Bridgeport, Conn., $44,000. Noted May 14, 1914; Apr. 1 and 22, 1915.

Keyport, N. J.—The Board of Chosen Freeholders of Monmouth County, Freehold, will build a new drawbridge, to replace the present swinging bridge, over Matawan Creek, near Keyport. The reported cost of the structure is $90,000, of which the county will pay half, and the Jersey Central Traction Co. the other half.

✚**Red Bank, N. J.**—The Board of Chosen Freeholders of Monmouth County, Freehold, has awarded the contract for repairing Cooper's Bridge over the Shrewsbury River at Red Bank to LEWIS J. SEILING, Red Bank, at $4830. Other bidders were: E. S. Ewing, Red Bank, $4940; J. Walter Butcher, Asbury Park, $5500; Samuel Craig, Red Bank, $6028; Owen J. Melee, Long Branch, $7294.

Sea Isle City, N. J.—(Official)—Bids were received May 4 by the Board of Chosen Freeholders of Cape May County, Cape May C. H., for the construction of a Strauss type double-lift bridge on concrete piling, from: Bridgeton Construction Co., Bridgeton, $27,480; Lupfer & Remick, Buffalo, N. Y., $27,750; Rennell Construction Co., 30 Church St., New York, N. Y., $28,500. The award of contract has been withheld. Frank W. Fowkes is Clk. of Bd. Noted Apr. 22.

✚**Hollidaysburg, Penn.**—(Official)—The Board of Commissioners of Blair County has awarded contracts for bridge work to the following: D. E. WENTZELL CO., Bellwood; WHITAKER & DIEHL, Harrisburg; CURWENSVILLE CONSTRUCTION CO., Curwensville; PAUL D. KAUFFMAN, Reading; CENTRAL CONSTRUCTION CO., Wooster, Ohio. Bids were opened May 7. Noted Mar. 18 and Apr. 22.

Indiana, Penn.—Bids will be received until May 26 by the Commissioners of Indiana County for the construction of three reinforced-concrete bridges, one of 60 ft., one of 32 ft., and the last a 25-ft. span. John Bennett is County Controller.

✚**Marcus Hook, Penn.**—(Official)—The Commissioners of Delaware County have awarded the contract for the construction of a bridge over Hook Creek on the Post Rd. at Marcus Hook to the CHARLES T. EASTBURN CO., Yardley, at $4000. A. F. Damon, Jr., is Engr. Noted Apr. 15.

✚**Media, Penn.**—(Official)—The Commissioners of Delaware County have awarded the contract for the construction of a bridge over Ridley Creek on the line of Baltimore Pike, between Middleton and Upper Providence Townships, to the CHARLES T. EASTBURN CO., Yardley, at $14,485. About 20 other bids were received. Orion L. Davis is County Controller. Noted Apr. 15.

✚★**Cumberland, Md.**—(Official)—Bids were received May 5 by the Mayor and City Council for the construction of the Market St. Bridge over Wills Creek, from: VANG CONSTRUCTION CO., Cumberland, $12,200 (awarded contract); Deverell Spencer Co., $12,995; S. T. Angle, $13,300; C. W. Hotalling, $13,950; I. J. Smith & Co., $14,600; Luten Bridge Co., $15,600; Thomas Sheahan, $16,735; Rennell Construction Co., $17,496; Concrete Steel Bridge Co., $19,475. James P. Gaffney is City Engr. B. H. Davis, New York, N. Y., is Consult. Engr. Noted Apr. 8 and 22.

Bedford City, Va.—(Official)—Bids will be received until noon, May 20, by the Clerk of the Circuit Court of Bedford County for the construction of three steel bridges with concrete substructures, one each over Beaver Dam Creek, Bore Auger Creek and Goose Creek. G. P. Coleman, Richmond, is State Highway Comr.

Washington, Va.—(Official)—Bids will be received until May 15, by Wade H. Massie, Chn. Bd. of Comrs. of Rappahannock County, Washington, for the construction of a bridge across the Rappahannock River between Rappahannock and Fauquier Counties.

★✚**Ranger, W. Va.**—(Official)—The Lincoln County Court, Hamlin, has awarded the contract for the Guyandotte River Bridge at Ranger, to the VINCENNES BRIDGE CO., Vincennes, Ind., at $6344. A. F. Black is County Clk. Noted Apr. 1 and 15.

★**Lake Charles, La.**—(Official)—Bids will be received until 11 a.m., June 1, by the Police Jury of Calcasieu Parish for the construction of a reinforced-concrete arch, with a double-leaf Strauss trunnion bascule span, over the Calcasieu River near Lake Charles. F. H. Frankland is Bridge Engr. E. C. House is Clk. of Police Jury.

✚**Natchitoches, La.**—(Official)—The Parish Police Jury has awarded the contract for the construction of a steel bridge over the Cane River about nine miles below Natchitoches to the VINCENNES BRIDGE CO., Vincennes, Ind., at $7121. Bids were opened May 3. Noted Apr. 15.

✚**Leitchfield, Ky.**—(Official)—The Fiscal Court of Grayson County has awarded contracts for the construction of the substructure and superstructure of a bridge over Bear Creek to MURPHY BROS., Bowling Green, and the CHAMPION BRIDGE CO., Wilmington, Ohio, respectively. Noted Mar. 18.

Louisville, Ky.—It is reported that the Louisville & Nashville R.R. will shortly award the contract for the construction of a steel viaduct over the Eastern Parkway, Louisville. The estimated cost is $12,000. F. A. Busse, Louisville, is Bridge Engr.

Louisville, Ky.—See item under "Miscellaneous."

✚**Akron, Ohio**—(Official)—The Board of Commissioners of Summit County has awarded the following contracts for bridge construction: Rebuilding the Feeder Bridge on Manchester Rd. to W. J. YOCKEY, South Akron; superstructure of the Louis Young Bridge on Manchester Rd., LACKAWANNA BRIDGE CO., Buffalo, N. Y.; superstructure of the Peninsula Canal Bridge, in Boston Township, G. W. LANE, Newark, Ohio; substructures of the Louis Young and Peninsula Canal Bridges, HUMPHREY BROS., Cuyahoga Falls. Noted Apr. 15.

Ashland, Ohio—Bids will be received until May 17 by the Board of Commissioners of Ashland County for the purchase of $60,000 in bridge bonds.

✚**Bryan, Ohio**—The Commissioners of Williams County have awarded the contract for the construction of one 50-ft. and three 70-ft. low-truss steel bridges to the ELKHART BRIDGE & IRON CO., Elkhart, Ind., at about $6000. The contract for a 144-ft. steel bridge was awarded to the BROOKVILLE BRIDGE CO., Brookville, Ohio. Noted May 6.

Canton, Ohio—(Official)—Bids will be received until 10 a.m., May 28, by the Board of Commissioners of Stark County for the construction of a plate girder bridge over Nimishillen Creek on Eighth St., N. E., and for rebuilding and repairing the bridge over Nimishillen Creek on Tuscarawas St., W., both in the City of Canton. C. L. Stoner is Clk. of Comrs. Noted Apr. 29.

Cincinnati, Ohio—It is reported that the Cincinnati & Covington Bridge Co. plans to extend and remodel the suspension bridge over the Ohio River between Cincinnati and Covington, Ky. The estimated cost of the work is $100,000. A. Clifford Shinkle, Cincinnati, is Pres., Charles H. Fisk, Covington, is Secy. of the Covington & Cincinnati Bridge Co.

Cincinnati, Ohio—Press reports state that the receivers of the Cincinnati, Hamilton & Dayton Ry. have authorized the construction of three steel railway bridges to cost about $200,000. They will be placed at Troy and Sidney, Ohio, and over the Wabash River at Montezuma, Ind. Judson Harmon, Cincinnati, is Receiver for the railway.

Cleveland, Ohio—Bids will be received until noon, May 19, by the Commissioner of Purchases and Supplies, 511 City Hall, for painting various city bridges. Robert Hoffman is City Engr.

Columbus, Ohio—Bids will be received until June 4 by the Board of Commissioners of Franklin County for the following bridge work: Shrivers Bridge over Hayden Run, Washington Township, a concrete arch; constructing the west approach to the Agler bridge over Alum Creek on the Agler Rd., Mifflin Township; the Taylor concrete bridge over the Kidner and Taylor Pike, Plain Township; extending and repairing the Souder Pike Bridge, Jefferson Township.

✚**Jefferson, Ohio**—(Official))—The Board of Commissioners of Ashtabula County has awarded the contract for the construction of a bridge over Mill Race, Harpersfield Township, to STEWART & WISWELL, Windsor, Ohio. Noted Apr. 15.

✚**Toledo, Ohio**—(Official)—The Board of Commissioners of Lucas County has awarded contracts for bridge construction and repairs to the following companies: E. N. OBERLE, Grand Rapids, Ohio; EMIL WOLFF, Grosser Ave., East Toledo; CHARLES T. RYAN, Maumee; WYNKOOP-McGORMLEY CO., Toledo; STANDARD ENGINEERING CO., Toledo; M. RABBITTS & SON CO., Toledo; JOHN MATHISS, Detroit Ave., Toledo. Noted Apr. 15

✚**Wauseon, Ohio**—(Official)—The Board of Commissioners of Fulton County has awarded contracts for building abutments for a bridge over Bean Creek to MENGARICK BROS., Napoleon, at $1157, and for a bridge and abutments over Bean Creek in Franklin Township to FRANK KLING, Wauseon, at $3760. Noted Apr. 8.

✚**Corydon, Ind.**—(Official)—The Board of Commissioners of Harrison County has awarded the contract for the construction of a 100-ft. bridge across Indian Creek on the Corydon-New Albany Rd. to the VINCENNES BRIDGE CO., Vincennes. Noted Apr. 29.

✚**Crawfordsville, Ind.**—(Official)—The Board of Commissioners of Montgomery County has awarded the contract for the construction of three small bridges and the repair of three others, to DANIEL Y. STOUT, Crawfordsville. Noted Apr. 22.

✚**Rensselaer, Ind.**—(Official)—The Board of Commissioners of Jasper County has awarded the contracts for bridge work to the following: W. V. PORTER, Rensselaer, three bridges; JOHN DANIELS, Rensselaer, three bridges; E. H. CROWELL, Crown Point, and WINAMAC CONSTRUCTION CO., Winamac, one bridge each. Noted Apr. 22.

✚**Salem, Ind.**—(Official)—The Commissioners of Washington County have awarded the contract for a number of county bridges to the MONTGOMERY-PARKER CO., Hatfield, Ind., at $19,400. Noted Apr. 22.

✚**Winamac, Ind.**—(Official)—The Commissioners of Pulaski County have awarded contracts for the construction of 12 bridges, estimated to cost $9000, to the following: F. M. WILLIAMS, Winamac, seven bridges; BADER & COLLINS, Winamac, one bridge; ROCHESTER BRIDGE CO., Rochester, Ind., four bridges. Noted Apr. 22.

Detroit, Mich.—The Belle Isle Bridge, which was recently destroyed by fire, will be replaced as soon as possible by a reinforced-concrete structure to cost at least $2,000,000. A temporary bridge will be built at once. R. H. McCormick is City Engr.

Carthage, Ill.—(Official)—Bids will be received until 11 a.m., May 18, by William Burgner, Supt. of Highways of Hancock County, Carthage, for the construction of a steel bridge on concrete abutments between Lima Township, Adams County, and Walker Township, Hancock County. The estimated cost is $5700.

Rockford, Ill.—At an election held Apr. 20 the citizens voted in favor of the following bond issues: $4500 for a bridge over Keith's Creek on 11th St.; $15,000 for a bridge over Keith's Creek on Kishwaukee St.; $15,000 for a bridge over Keith's Creek on Tenth St. Edwin Main is City Engr.

DePere, Wis.—(Official)—Bids will be received until May 29 by E. W. Janssen, City Clk., for repairing the Main St. Bridge over the Fox River. The work includes repairing and painting the steel, repairing the creosoted roadway and sidewalk. The estimated cost is $21,000. H. R. Alberts, Green Bay, is Engr. Noted Mar. 25 and Apr. 29.

Clarion, Iowa—Bids will be received until 1:30 p.m., May 18, by F. E. Osier, Audr. of Wright County, for the construction of 10 county bridges.

Des Moines, Iowa—(Official)—We are advised by E. Tracy Blaghern, Ch. Clk., City Engineering Dept., that the date for receiving bids for a bridge over Four-Mile Creek has not yet been fixed. The bridge will probably be a reinforced-concrete arch, and the estimated cost is $10,000. Bids will be received by Horace Susong, City Clk. Noted Apr. 29.

✚**Ft. Dodge, Iowa**—(Official)—The Board of Supervisors of Webster County has awarded contracts to the DES MOINES BRIDGE & IRON WORKS, Des Moines, at $13,317 for the construction of 13 bridges, and to N. M. STARK & CO., Des Moines, at $4815 for constructing seven bridges. There were 16 other bidders. Noted Apr. 22.

✚**Marshalltown, Iowa**—The Minneapolis & St. Louis R.R. and the Chicago & Northwestern Ry. have awarded the contract for the construction of a viaduct over their tracks on South Third Ave., Marshalltown, to the JOHN J. O'HERON CO., 326 West Madison St., Chicago, Ill., at about $75,000. The structure will be of reinforced concrete, 1146 ft. long, and 32 ft. wide.

Montezuma, Iowa—(Official)—We are advised by W. C. McKee, Audr. of Poweshiek County, that the county will furnish the material and have 17 concrete bridges and culverts, recently declared necessary, constructed by county forces. Noted Apr. 29.

Northwood, Iowa—Bids will be received until 2 p.m., May 21, by C. N. Urdahl, Audr. of Worth County, for the construction of six concrete or steel bridges.

Brainerd, Minn.—(Official)—Bids will be received until 2 p.m., June 1, by the Board of Commissioners of Crow Wing County for redecking with creosote blocks the Laurel St. Bridge, and for improving and redecking with creosote blocks the old Minnesota and International Ry. Bridge, both bridges being over the Mississippi River. C. W. Mahlum is County Audr.

Deer Wood, Minn.—(Official)—Bids will be received until 2 p.m., June 1, by C. W. Mahlum, Audr. of Crow Wing County, Brainerd, for repairing the Mississippi River Bridge north of Deer Wood.

✚**Bloomington, Neb.**—(Official) — The Commissioners of Franklin County have awarded the contract for the construction and repair of all county bridges for a period of one year from date of contract, to the LINCOLN CONSTRUCTION CO., Lincoln. O. Muckel is County Clk. Noted Apr. 22.

Butte, Neb.—Bids will be received until 1 p.m., May 25, by S. A. Richardson, County Clk. of Boyd County, for the construction of a number of concrete bridges.

✚**Ord, Neb.**—(Official)—The Commissioners of Valley County have awarded the contract for the construction of a number of bridges to the CANTON BRIDGE CO., Canton, Ohio. William A. Bartlett is County Clk. Noted Apr. 22.

Wayne, Neb.—Bids will be received until noon, May 21, by C. W. Reynolds, Clk. of Wayne County, for the construction of county bridges as ordered by the County Commissioners during 1915. All bids received in January were rejected. Noted Jan. 14 and Feb. 25.

Medora, N. D.—(Official)—We are advised by Jay W. Bliss, State Engr., that, although plans have been prepared for a bridge across the Little Missouri River at Medora, the estimated cost of which is $17,805, bids for its construction will probably not be asked this year. Noted Apr. 29.

Oregon, Mo.—Bids will be received until 2 p.m., May 21, by the Commissioners of Holt County for the construction of five steel bridges and 16 concrete culverts.

El Paso, Tex.—It is reported that the cities of El Paso and Juarez, Mex., are considering plans for building a free bridge over the Rio Grande River to connect the two towns. George Espy is City Engr.

✚**Lockhart, Tex.**—The Commissioners Court of Caldwell County has awarded the contract for a number of concrete bridges and culverts to AUSTIN BROS., Dallas, at about $15,000.

✚**Silver City, N. M.**—The contract for the construction of a five-span steel bridge across the Gila River has been awarded to the EL PASO BRIDGE & IRON CO., El Paso, Tex., at $14,376.

Globe, Ariz.—The city is receiving bids for the construction of a 184-ft. steel viaduct with 16-ft. roadway and 4-ft. sidewalk. H. C. Hansen is City Clk. R. A. Smith is City Engr. Lanning & Sawyer, Miami, Ariz., is Consult. Engr.

Chehalis, Wash.—It is reported that the Commissioners of Lewis County are receiving bids for the construction of an 800-ft. trestle on the Thomas Deverese Rd.

Seattle, Wash.—Bids will be received until May 17 by the Board of Commissioners of King County for the construction of a 880-ft. trestle on Wells Rd.

✚**Seattle, Wash.**—(Official)—The contract for the construction of a bridge over the Duwamish Waterway at Eighth Ave. S., has been awarded to the J. A. McEACHERN CO., Central Bldg., Seattle, at $24,205. F. A. Rapp is Structural Engr. List of bidders noted Apr. 29.

Tacoma, Wash.—(Official)—We are advised by E. O. Reeder, Asst. Ch. Engr. of the Chicago, Milwaukee & St. Paul Ry., that plans for the new bridge over Bay St. are not yet matured, but no contracts for the work will be awarded. The bridge will be a single-track steel girder span on concrete piers or abutments. Noted Apr. 29.

Lebanon, Ore.—It is reported that the Linn County Court, Albany, has decided to build a steel bridge across the South Fork of the Santiam River near Lebanon. The estimated cost is $15,000.

Portland, Ore.—See item under "Miscellaneous."

✚**Oakland, Calif.**—The Board of Supervisors of Alameda County has awarded the contract for the construction of a reinforced-concrete bridge near Oakland to THOMAS B. RUSSELL, Hayward, at $8590.

San Jose, Calif.—It is reported that bids are being received by the Board of Supervisors of Santa Clara County for the construction of a reinforced-concrete bridge over Los Gatos Creek. H. A. Pfister is Clk. of the Bd.

Stockton, Calif.—(Official)—Bids will be received until 10 a.m., June 8, by the Board of Supervisors of San Joaquin County for the construction of the Old and Middle River Bridges. The work includes two 260-ft. draw spans, two 135-ft. approach spans and three 95-ft. approach spans, with concrete pile or cylinder piers. The estimated cost is $130,000. F. E. Quail is County Surv. Noted Mar. 25.

WATER SUPPLY—IRRIGATION

✚**Boston, Mass.**—The contract has been awarded to JOHN GUARINO at $18,330, for laying water mains in Brighton, Dorchester, Hyde Park, Roxbury and West Roxbury. Noted Apr. 8.

Salem, Mass.—Bids will be received until May 17 by P. J. Kelley, Dir. of Pub. Wks., for constructing a covered concrete reservoir. William S. Johnson, 101 Tremont St., is Consult. Engr.

Shrewsbury, Mass.—All bids received Apr. 24 for the installation of a water system have been rejected as they exceeded the appropriated amount. New bids will soon be called for. Noted Feb. 11, Apr. 24 and May 6.

Hartford, Conn.—The city contemplates installing a purification plant for the water system. Robert Spurr Weston, 14 Beacon St., Boston, Mass., is Consult. Engr., and C. M. Saville is Ch. Engr.

★**Albion, N. Y.**—(Official)—Bids will be received until noon, May 26, by the village for making extensions to the water system. Edward S. Eaton is Village Clk. and the J. F. Witmer Co., Buffalo, is Engr.

Batavia, N. Y.—(Official)—A report is being prepared by Chester & Fleming, Pittsburgh, Penn., for improvements to the water system and changes in the sewerage system and electric-light plant. Noted Apr. 15.

Elmira, N. Y.—The Elmira Water, Light & R.R. Co. has sold its water system to the city at $1,500,000. Harry M. Beardsley, Elmira, is Gen. Mgr.

✚★**Gilbertsville, N. Y.**—(Official)—Bids were received May 6 for constructing a storage reservoir as follows: SUBURBAN ENGINEERING CO., 15 West 38th St., New York, at $17,787 (awarded contract); Charles R. Lewis, Utica, $19,382; Samuel Boon, Syracuse, $19,720; Young & Hyde, Inc., New York, $20,237; and John J. Fitzpatrick, Plattsburg, $20,315. E. M. Holden is Village Clk. Noted Apr. 22 and 29.

New York, N. Y.—(Official)—Bids were received May 4 by the Board of Water Supply for constructing 15 miles of wire fence with concrete posts and guard rails at the Ashokan reservoir as follows: Z. B. Boise, Kingston, $38,680; James McArthur Co., $46,821; Degnon Contracting Co., $45,950; Seabury Northrup, Inc., $47,595; A. N. Harper, $41,470; Ward & Tully, Inc., $44,122; C. J. Carroll, $45,340; Northeastern Construction Co., $45,469; McHarg & Barton, $46,450; and M. T. Moran, $43,055.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received May 7 by the Department of Water, Gas & Electricity for (a) laying water mains in a number of streets and (b) for laying water mains in Grand Blvd. and Concourse as follows: Wilton Contracting Co., (a) $20,970, (b) $7883; L. Capetto, (a) $27,865; Soraci Contracting Co., (a) $25,000, (b) $8250; Louis D. Gregory, (a) $26,400, (b) $7560; Knight & DiMicco, (a) $24,721, (b) $7422; Hanover Contracting Co., (a) $28,968, (b) $9108; Giggiliano Contracting Co., (b) $8100; Rogers & McManus, (a) $28,500, (b) $9000; F. W. Maloney, (a) $25,628, (b) $7787; Brady Oltarsh Construction Co., (a) $27,234, (b) $8065; and Melrose Construction Co., (a) $24,000, (b) $7340.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., May 20, by William Williams, Comr. Water Supply, Gas and Electricity, for laying water mains in various streets.

New York, N. Y.—(Boroughs of Manhattan and the Bronx)—(Official)—John Fox & Co., at $2430 and $2290 for Sections 1 and 2, and the A. P. Smith Mfg. Co., at $4872 and $9807 for Sections 3 and 4, were low bidders for furnishing water pipe and specials. Noted Apr. 8.

Atlantic City, N. J.—(Official)—Bids will be received until noon, May 19, by the Director of Revenue and Finance for the purchase of $125,000 in bonds, the proceeds of which will be used for the extension of the water system.

Irvington, N. J.—The Irvington Town Commission has authorized Alexander E. Potter to continue his investigation of the condition of the Clinton Water Co., from which Irvington draws its supply, for the purpose of getting facts to issue to citizens prior to a referendum on the question of the purchase of the plant by the municipality at the election next November.

Newark, N. J.—The Board of Works has approved the purchase of watershed rights of Lake Wawayanda, in Sussex County, for $142,250, and the matter now goes to the Mayor for his approval. The lake and surrounding drainage covers about 5700 acres. It would add 10,000,000 gal. daily to the Newark water supply. As the outlet of the lake flows into New York State there is some question as to whether there would be objection to the diversion of the water. Noted Apr. 29.

+Mt. Gretna, Penn.—The contract for constructing a 150,000-gal. reservoir on the State Rifle Range has been awarded to EMANUEL KEENER, Colebrook. Noted Apr. 15.

+Erie, Penn.—(Official)—The contract has been awarded by the Commissioner of Water-Works to the PITTSBURGH-DES MOINES STEEL CO. for constructing a 40-ft. extension to the high service standpipe. Chester & Fleming, Pittsburgh, is Engr. Noted May 6.

+Polk, Penn.—(Official)—The contract has been awarded by the State Institution to the ALBERGER PUMP CO. for a motor-driven electric pump for the water department. Chester & Fleming, Pittsburgh, is Engr.

Stroudsburg, Penn.—The Stroudsburg Water Supply Co. will build a dam for the construction of a reservoir at the Neyhart farm.

Wilmington, Del.—The cost of installing water mains and reconstructing some of the present mains in the streets to be paved this summer is estimated at $55,000. Edgar M. Hooper, Jr., is Supt. of Water-Wks.

Maryland—(Official)—During April permits were issued by the State Department of Health for water supply improvements as follows:

Roland Park Water Co.—Use of additional source of supply.

Suburban Water Co., Arlington—Use of additional source of supply.

Boonsboro Water Co.—Development of additional source of supply.

Frederick, Md.—A two mile pipe line will be constructed from Fishing Creek to the city at an estimated cost of $14,905. A plan has been submitted by William H. Boardman, Philadelphia, Penn., for the construction of two storage reservoirs at an estimated cost of $64,000 and $55,000. Noted Oct. 29.

★Frederick, Md.—(Official)—Bids will be received until 2 p.m., May 28, by the Board of Aldermen for laying 12-in. c.-i. water main and specials. William H. Boardman, 426 Walnut St., Philadelphia, Penn., is Engr.

+★Laurel, Md.—(Official)—Contracts have been awarded to the THOMAS HAMPTON CONSTRUCTION CO., Washington, D. C., at $19,168, for laying water mains, constructing a filtration plant and a sewage disposal plant, and to DABBS & MYERS CO., Meridian, Miss., at $25,267, for sewer work. Harry Phelps is City Clk. Noted June 4, 1914 and Jan. 7 and Apr. 15, 1915.

Petersburg, Va.—Bids will be received until May 17 by J. E. Harvell, Chn. Water Comn., for constructing two water tanks and towers. R. D. Budd is City Engr.

+Bridgeport, W. Va.—The contract has been awarded to ANDREW L. NICKOLICH, Fairmont, for installing water and sewer systems. Noted Feb. 4 and Apr. 1.

Wilmington, N. C.—Bids will be received until May 15 by the Oakdale Cemtery Co., for constructing a water system for the cemetery. About 2200 ft. of 4-in., 2000 ft. of 2- to 3-in. and 12,000 ft. of ¾-in. pipe will be required. Walken Taylor is Chn. Water-Works Comn.

Plant City, Fla.—Bids will be received until May 15 by the Board of Public Works for drilling a 12-in. well 300 ft. deep and for c.-i. pipe; and until June 5 for furnishing pumping equipment. E. W. Mays is Supt. of Water-Wks. Noted Oct. 1.

Gadsden, Ala.—A survey has been made by W. W. Johnson, City Engr., for the construction of a new reservoir on Riverview.

Oberlin, La.—The construction of a water system and electric-light system is under consideration by the city. W. D. Stockwell is Mayor.

+Memphis, Tenn.—The contract for constructing a reservoir on Bayou Gayoso has been awarded to KOEHLER BROS., 68 Camp Ave., Memphis, and the FOWLER CONSTRUCTION CO., at $14,162. Bids were opened Apr. 13. Noted Apr. 29.

Cleveland, Ohio—Bids will be received by the Commissioner of Purchases and Supplies, Room 511, City Hall, until noon, May 20, for constructing superstructure and brick chimneys and two steam driven centrifugal feed pumps and a cantilever runway for crib No. 5, water department. Charles F. Schultz, 413 Superior Ave., is Comr.

+Dayton, Ohio—The contract has been awarded to the PLATT IRON WORKS CO., Dayton, at $11,695, for a high-service pump at the central pumping station. Noted Jan. 28.

+Fostoria, Ohio—The contract has been awarded to J. H. JONES, Fostoria, at $50,865, for constructing a 175,000,000-gal. reservoir. Noted Mar. 25 and Apr. 8.

+Rittman, Ohio—(Official)—The Ohio Boxboard Co. has awarded a contract to the BUILDERS' IRON FOUNDRY, Providence, R. I., for four double dial rate of flow and loss of head gages for its filtration plant.

Xenia, Ohio—(Official)—Chester & Fleming, Pittsburgh, Penn., has been retained by the Xenia Water Co. to prepare plans for well connections, a temporary pumping stations and a 16-in. force main.

Indianapolis, Ind.—The Indianapolis Water Co. has been directed by the Board of Works to lay water mains in various streets. Noted Mar. 18.

Lansing, Mich.—Work will start soon on the construction of a belt water main around the city to supply water to the outer sections. The estimated cost is $50,000. Guy C. Crane is Supt. of Water-Wks. Noted Dec. 3.

Saginaw, Mich.—Water mains will be laid in various streets at an estimated cost of $9000. Robert F. Johnson is Supt. of Water-Wks.

+Schoolcraft, Mich.—The contract has been awarded to T. C. BROOKS & SONS CO., Jackson, at $13,191, for the installation of a water system. Smith & Boulay Co., Toledo, Ohio, is Engr. Noted Mar. 18 and Apr. 15.

Berwyn, Ill.—Bids will be received until 8 p.m., May 18, by the Board of Local Improvements for constructing a water supply pipe in Lombard Ave. and other streets. Oscar N. Lindahl is Secy., Bd. of Local Imp.

Carlyle, Ill.—Monie & Dunbar, St. Louis, Mo., was low bidder at $5175, for making extensions to the distributing system and for a pump. Noted Apr. 22.

Paris, Ill.—Bids will be received until 10 a.m., May 18, by the City Clerk for constructing four earth dams, a diversion channel, an intake and a wet well. Fleming, Babbitt & Enger, Urbana, is Engr. Noted Mar. 4.

Bloomington, Wis.—Bids will be received until May 18 by the city for constructing a water system. L. P. Wolf, 1000 Germania Life Bldg., St. Paul, Minn., is Engr. Noted Apr. 1.

+Morning Sun, Iowa—(Official)—The contract has been awarded to the PUBLIC SERVICE CONSTRUCTION CO., Omaha, Neb., at $13,370, for constructing a water system. W. B. Garvin is Clk. Noted July 2, 1914 and Mar. 18 and Apr. 22, 1915.

+Pella, Iowa—(Official)—The contract has been awarded by the city to the P. DINGUNAN & CO., Pella, at 11.9c. per lin.ft., for laying water mains and installing hydrants and valves, pipe furnished by the city. A. C. Kuyp is City Clk. Noted Jan. 28.

McKinley, Minn.—The Village Council plans to build a water system at an estimated cost of $18,000.

South Stillwater, Minn.—Bids will be received until 8 p.m., May 17, by Oscar Huhnke, Village Recdr., for making improvements to the water system. The work includes the construction of a concrete reservoir and the laying of 5150 ft. of 6- to 10-in. water mains. Noted Feb. 25 and Mar. 11.

+Lansing, Kan.—The contract has been awarded to the F. D. MORTON CONSTRUCTION CO., Ft. Scott, at $4967, by the State Board of Corrections for the construction of a pumping station at the State Penitentiary.

Ceresco, Neb.—Bids will be received until May 24 by the City Clerk, for constructing a water system. Grant & Fulton, Lincoln, is Engr. Noted Feb. 25 and Apr, 8.

Irene, S. D.—Bonds for $13,500 have been voted, the proceeds of which will be used for the construction of a municipal water system.

+Sioux Falls, S. D.—The contract has been awarded to the U. S. CAST IRON PIPE & FOUNDRY CO. by the City Commissioners for furnishing water pipe.

Sioux Falls, S. D.—According to press reports the City Commissioners rejected all bids for water connections in Ninth, Tenth and 21st St. Walter C. Leyse is City Audr.

Sykeston, N. D.—(Official)—We have been advised that an election will soon be held to vote on the question of issuing $14,000 in bonds, the proceeds of which will be used for the construction of a pumping plant, tank and water mains. Charles L. Smith is Village Clk. Noted Apr. 29.

Wibaux, Mont.—An election will be held to vote on the question of issuing $40,000 in bonds, the proceeds of which will be used for the construction of a water system.

Honey Grove, Tex.—The Holts Heights Water Co. plans to build a new pumping plant at Honey Grove.

Drumright, Okla.—Bonds for $35,000 have been voted, the proceeds of which will be used for the extension of the water system.

Lehigh, Okla.—(Official)—The Benham Engineering Co., Oklahoma, Okla., has been retained by the city to prepare plans for the extension of the water system. The estimated cost is $40,00, bonds for which have been voted. Noted July 9.

+Ogden, Utah—The contract has been awarded, according to press reports, to the UTAH CONSTRUCTION CO., by the Directors of the Davis & Weber Co. for constructing a dam in East Cañon, Morgan County.

Phoenix, Ariz.—Three electrically driven pumps, each with a capacity of 2500-gal. per minute, will be installed at the water-works.

Colfax, Wash.—An election will be held May 24 to vote on the question of issuing $60,000 in bonds, the proceeds of which will be used for the improvement of the water system.

+Kent, Wash.—(Official)—Bids were received May 3 for laying water mains as follows: W. T. BONIES, Kent, at $5980 (awarded contract); Martin & Dugan, Seattle, $6776; Dickern & Rightmire, Seattle, $6291 and A. H. Cox & Co., $6389. L. E. Price is City Clk. Noted Apr. 15 and 29.

✚Kirkland, Wash.—The contract has been awarded to J. ERICKSON, 5812 Woodlawn Ave., Seattle, at $4995, by the city for constructing a water system. The contract for furnishing pipe was awarded to the AMERICAN WOOD PIPE CO., Tacoma, at $3933. Noted June 18 and Dec. 19, 1914, and Apr. 8, 1915.

Seattle, Wash.—According to press reports T. Ryan, Lowman Bldg., at $13,266, was low bidder for constructing a water main in the siphon tunnel in Third Ave. under Lake Washington Canal. Noted May 6.

✚Portland, Ore.—The contract has been awarded to the NATIONAL METER CO., at $6925, by the Council for furnishing 10 water meters.

Brockville, Ont.—Bids will be received until 5 p.m., May 17, by G. H. Bryson, Town Engr., for constructing a mechanical filtration plant. Noted Feb. 4.

✚Brawley, Calif.—The contract has been awarded to H. R. BOYNTON & CO., Los Angeles, at $10,477, for furnishing pipe for the water department. Noted Nov. 19.

✚Modesto, Calif.—(Official)—The contract has been awarded to PEARL BROS., Oakdale, at $19,493, for constructing an earth fill over the Indian Hill gulch by the Modesto Irrigation District. Other bidders were: San Francisco Bridge Co., $29,515; Tibbitts Pacific Co., $26,667, and the Mesmer & Rice Co., $24,690. C. S. Abbott is Secy. Noted Apr. 29.

✚Palo Alto, Calif. — (Official) — The contract has been awarded to JAMES STANLEY, Sausalito, Calif., at $13,396 for laying water mains. Other bidders were: D. L. Bienfield, $15,900; Pringle, Dunn & Co., $16,448; Michael Murphy, $16,677; Contra Costa Construction Co., $17,181; Cashel Bros., $17,243, and Power Equipment Co., $18,970. Noted Apr. 29.

Orillia, Ont.—Bids will be received until May 17 by F. Gover, Secy.-Treas., Orillia Water, Light & Power Comn., for pumping machinery for the pumping station.

Ottawa, Ont.—(Official)—At a recent meeting of the City Council a bill providing for the construction of a new pipe water supply was passed. The pipe will be 48- to 51-in. in diameter. The work will soon be advertised. Noted Apr. 8.

★Peterborough, Ont.—(Official)—Bids will be received until noon, May 31, by S. R. Armstrong, Secy., Utilities Comn., for installing a complete pumping unit. William Kennedy, Jr., 364 University St., Montreal, Que., is Engr.

Stratford, Ont.—Bids will be received until 5 p.m., May 15, by A. B. Manson, City Engr., for 5460 ft. of 48-in. reinforced-concrete pipe and 6260 ft. of 36-in. pipe .

Transcona, Man.—Bids will be received until noon, May 15, by G. P. Campbell, Secy. and Treas., for furnishing and installing pumping machinery at the water-works.

Weyburn, Sask.—The installation of a 12-in. water main from Second Ave. to the power house is under consideration by the City Council. The estimated cost is $6000. E. H. Phillips is Clk.

Medicine Hat, Alta.—The City Council plans to lay water mains to the factory of the Dominion Harvester Co. The estimated cost is $21,000. R. B. Piper is Engr.

✚Lima, Peru.—The contract has been awarded to BREITUNG & CO., LTD., New York, N. Y., by the president of Peru at about $10,000,000 in bonds, for the construction of an irrigation project and for colonization of about 100,000 acres.

SEWERS

Boston, Mass.—Bids will be received until May 14 by the Department of Public Works for the construction of sewers in Park and Claybourne St., Dorchester District. P. O'Hearn is Acting Comr. of Pub. Wks.

Boston, Mass.—Bids will be received until May 18 by the Department of Public Works for the construction of sewers in Perthshire Rd. and in Metropolitan Terrace, West Roxbury District. P. O'Hearn is Acting Comr. of Pub. Wks.

Buckland, Mass.—Bids will be received until 1 p.m., May 15, by the Board of Selectmen for the construction of 1300 ft. of sewer.

Fitchburg, Mass.—Bids will be received until May 19 by the Sewer Commissioner for the construction of the Bemis Rd. siphon connection with the main sewer, consisting of about 2400 ft. of 16-in. c.-i. pipe. David A. Hartwell is Ch. Engr.

Shelburne Falls, Mass.—Bids will be received until 1 p.m., May 15, by the Board of Selectmen for the construction of 1300 ft. of sewers. A. C. Bray is Clk.

★Greenwich, Conn.—Bids will be received until May 24 by the Sewer Commissioners for the construction of sewage-disposal works in East Port Chester Sewer District No. 9. W. Wilson Heaton is Chn. of Sewer Comrs. Sheldon E. Minor, Trust Co. Bldg., Greenwich, is Engr.

Hamden, Conn.—Plans are being prepared by Clyde Potts, 30 Church St., New York, N. Y., for the construction of a sewer system and sewage disposal works.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., May 19, by L. H. Pounds, Borough Pres., for repairing the mechanical equipment of the pumping station, Gowanus flushing tunnel and the Douglass St. and Gowanus Canal.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., May 26, by L. H. Pounds, Borough Pres., for the construction of the complete superstructure for the sewage pumping station, Section No. 2, and the construction of sewers in Ave. V.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received May 5 by L. H. Pounds, Borough Pres. for (a) constructing a sewer in Ave. H, from East 35th St. to Brooklyn Ave.; (b) for constructing sewer basins in Flatlands Ave. on 41st St. and Troy Ave.; East 45th St.; East 46th St.; Ave. L and East 45th St.; in Flatlands Ave., north side; in Flatlands Ave., south side; at the intersection of the northerly curb line of Flatlands Ave. and the southerly curb line of Ave. L; at the intersection of the southerly curb line of Flatlands Ave. and the northerly curb line of Ave. L; (c) constructing a sewer in East 31st St., from Farragut Rd. to the line of the Flatbush water works, and sewer basins at all four corners of East 31st St. and Foster Ave.; (d) constructing a sewer in East 35th St. from Farragut Rd. to the line of the Flatbush water works, as follows: (a) Bachrass & Gelardi, 96%. (a) Pasquale Tomasetti, 91.99%; (a) F. Merrindino, Inc., 100%; (a) E. Gelardi Contracting Co., 98%; (a) Victory Contracting Co., 107%; (a) Murphy Bros., 100%; (a) Joseph Jennings, 134.76%; (a) B. Paconi & Son, 91%; (b) S. Paconi & Son, 100%; (b) F. Merrindino, Inc., 84%; (b) E. Gelardi & Son, Inc., 79.97%; (b) Victory Contracting Co., 89%; (b) Murphy Bros., 78%: (b) Joseph Jennings, 96.46%; (b) B. Paconi, 75%; (b) Pasquale Tomasetti, 68%; (b) Bachrass & Gelardi, 79%; (b) Angelo Soriano, 97%; (c) Bachrass & Gelardi, 90%; (c) Pasquale Tomasetti, 62%; (c) F. Merrindino & Co., Inc., 70%; (c) S. Paconi & Sons, 80%; (c) Victory Contracting Co., 83%; (c) B. Paconi & Son, 65%; (c) Murphy Bros., 61%; (c) E. Gelardi Contracting Co., Inc., 79,90%; (c) Joseph Jennings, 80.84%; (d) F. Merrindino, Inc., 98%; (d) Pasquale Tomasetti, 68.49%; (d) Bachrass & Gelardi, 91; (d) Murphy Bros., 79%; (d) Vectory Contracting Co., 99%; (d) B. Paconi & Son, 69%; (d) Joseph Jennings, 110.70%; (d) E. Gelardi Contracting Co., Inc., 90%. Noted Apr. 28.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received May 6 by Douglas Matthewson, Borough Pres., for (a) constructing sewers and appurtenances in Plimpton Ave., between Boscobel Ave. and Featherbed Lane; (b) constructing sewers and appurtenances in West 234th St., between Spuyten Duyvil Rd. and Kingsbridge Ave.; Corlear Ave. between West 232d St. and the Summit North of West 234th St.; (c) constructing sewers and appurtenances in West 238th St., between Broadway and Putnam Ave. W.; Review Pl., between West 238th St. and West 239th St., as follows: (a) Tony Lapadula, $9798; (a) Lawrence Contracting Co., $10,604; (a) Amanna & Sullivan, $10,975; (a) Anita Construction Co., $12,964; (a) Kingsbridge Contracting Co., $13,113; (a) Briggs & O'Loughlin, $10,980; (a) O'Rourke Contracting Co., $12,293; (a) B. J. Brennen, $10,579; (a) W. F. McAroy, $10,088; (b) O'Rourke Contracting Co., $13,097; (b) Briggs & McLoughlin, $11,719; (b) Harris Rose Contracting Co., $11,444; (b) Amanna & Sullivan, $1,062; (b) Melrose Construction Co., $13,097; (b) Michael Marrone, $10,875; (b) Kingsbridge Contracting Co., $14,198; (b) Anita Construction Co., $13,919; (b) Casperini & De Blasio, $11,670; (c) Estates Contracting Co., $12,293; (c) O'Rourke Contracting Co., $3161; (c) D. J. Donlin, $3008; (c) Amanna & Sullivan, $3343; (c) Kingsbridge Contracting Co., $3750; (c) Briggs & McLoughlin, $3385; (c) Anita Construction Co., $3678; (c) Charles E. Farrell Contracting Co., $3126; (c) Michael Marrone, $3728; (c) Estates Contracting Co., $3449; (c) Casperini & De Blasio, $4290. Noted Apr. 29.

New York, N. Y.—(Borough of Queens)—(Official)—Bids were received May 5 by Maurice E. Connolly, Borough Pres., for constructing sewers and appurtenances (a) in Canal, Shaw, Snediker and Jamaica Ave. and in Syossett, Unum and Yarmouth St., Fourth Ward, (b) in Orchard St., First Ward, (c) in Guion, Beaufort and Napier Ave., Fourth Ward as follows: Clancy & Nuhn, (a) $48,599, (b) $1995; Joseph L. Ligretto, (a) $48,352, (c) $7278; Rosenthal Engineering & Contracting Co., (a) $48,648, (c) $7853; James O'Leary, (a) $54,695; Stanhope Contracting Co., (a) $54,786, (c) $7656; H. J. Mullen, (a) $43,819, (c) $8039; Peace Bros., (a) $52,492, (b) $1710, (c) $9423; Angelo Paino, (a) $44,966, (c) $7027; L. E. Kelly, (a) $57,735; James Johnson, (b) $2208, (c) $7370; Green Contracting Co., (b) $1844, (c) $6498; Evergreen Contracting Co., (b) $2016, (c) $8908; C. E. Farrell, (b) $3588; T. Lapadula, (c) $8184; Harry Britton, (c) $6495. Noted Apr. 29.

New Rochelle, N. Y.—The city has appropriated $6700 for the construction of a sewer in Clove Rd. from Eastchester Rd. to Parcot Ave.

✚Yorkville, N. Y.—(Official)—Bids were received Apr. 30 by the Board of Trustees for the construction of 3684 lin.ft. of 12-in. and 2050 lin.ft. of 8-in. pipe sewer, nine manholes and three lampholes as follows: N. D. PETERS & CO., Utica, $5116 (awarded contract); Ralph F. Relly, St. Johnsville, $5505; D. Peritano, Utica, $5816; W. S. Cookinham, Utica, $6022; Frank M. Johnston, Utica, $6079; A. L. Nixdorf, Oneida, $6771. W. G. Stone & Son, Utica, is Engr. Noted Dec. 31 and Apr. 22.

Camden, N. J.—The city contemplates constructing sewers in various streets.

Glen Gardner, N. J.—Plans are being prepared for the construction of a sewage-disposal plant. The estimated cost is $20,000.

Verona, N. J.—At a recent election the citizens voted to issue $175,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

★Downingtown, Penn.—(Official)—Bids will be received until 8 p.m., June 7, by the Borough Council for the construction of a sewage disposal works and a sewer system. Herbert W. Hatton is Consult. Engr.

Ebensburg, Penn.—Bids will be received until May 24 by the Borough Council for the construction of a sewage disposal plant and approximately 5000 ft. of 15-in. sewers. G. A. Flink, Commonwealth Trust Bldg., Harrisburg, is Consult. Engr. J. L. Elder & Son, Ebensburg, is Borough Engr.

✚Indiana, Penn.—(Official)—The contract for constructing one mile of 8-in. and ½ mile of 6-in. pipe sewers has been awarded to BENNETT & SHEARER, Indiana, at $5367. Thomas Pealer is Engr.

✚Reading, Penn.—(Official)—Bids were received Apr. 30 by Charles Marks, City Clk., for the construction of a sewer in Elm and West Elm St. from Schuylkill Canal to Rose St., as follows: CANTRELL CONSTRUCTION CO., $64,632 (awarded contract); Fehr & O'Rourke, $75,206; James Ferry & Sons, Inc., $76,791; Union Paving Co., $90,086; Heyman & Goodman Co., $104,082. E. Bulrich is City Engr. Noted Sept 17, Oct. 1 and Apr. 22.

✚Reading, Penn.—The contract for the construction of a sewage filter on Fritz's Island has been awarded to P. L. SCHOLL, Reading, at $39,564. Noted Sept. 17, Oct. 1 and Apr. 22.

Reading, Penn.—The Board of Public Works has approved plans for the construction of the Michigan St. sewer. Bids will be received about May 15. The estimated cost is $50,000.

York, Penn.—It is reported that the City Council will issue $100,000 in bonds for the construction of a sewer system and sewage-disposal plant. George A. Warner is City Engr.

+Baltimore, Md.—The contract for the construction of lateral sewers in North Ave. has been awarded to CAROZZA BROS. & CO., 606 Munsey Bldg., Baltimore, at $92,239.

Maryland—(Official)—During April permits were issued by the State Department of Health for sewer construction, as follows:

Mt. Washington—Extension of sewer system.
Baltimore—Sewage treatment works at the water filtration plant.
Buckeystown—Sewage-disposal plant at Buckingham Industrial School.
Roland Park—Extension of sewer system.
Cambridge—Extension of sewer system.
Crisfield—Extension of storm sewer. Robert B. Morse is Ch. Engr.

+★Laurel, Md.—(Official)—See item under "Water Supply—Irrigation."

Ravenswood, W. Va.—Bids will be received by the city until May 14 for the construction of 3200 ft. of 6-in., 10,450 ft. of 8-in., 1510 ft. of 10-in. and 600 ft. of 12-in. sanitary sewers. Ira S. Bartlett is Mayor. J. V. Dunbar is Engr.

Durham, N. C.—Bids will be received until May 17 by W. G. Bradshaw, Chn. Street Com., for the construction of 1900 ft. of 8-in. and 6000 ft. of 12-in. outfall sewers.

+Durham, N. C.—Bids were received Apr. 28 for constructing 5½ miles of vitrified pipe sewers as follows: C. C. JACOB, Durham, $12,217 (awarded contract); E. M. Sheflow, Elgin, Ill., $13,938; Mischler & Flynn, Chattanooga, Tenn., $14,475; I. J. Smith Co., Richmond, Va., $17,741.

+Birmingham, Ala.—The contract for the construction of sanitary sewers in North Birmingham has been awarded to the AMERICAN CAST IRON PIPE CO., Birmingham, at $10,700. Julian Kendrick is City Engr.

New Orleans, La.—Hampton Reynolds, New Orleans, submitted the lowest bid at $43,850, for constructing additions to the pumping plant, Station No. 2, Contract 72-D. The lowest bid submitted for building sluice gates for Station No. 2, Contract 73-D, was that of the Chapman Valve Co., Indian Orchards, Mass., at $6465. Noted Mar. 4. Bids opened Apr. 19.

Cincinnati, Ohio—Bids will be received until noon, May 21, by Philip Fosdick, Dir. of Pub. Ser., for the construction of main and lateral sewers and drains in Erie Ave. and in Herschel Ave.

Cleveland, Ohio—Bids will be received by the Commissioner of Purchases and Supplies, City Hall, until noon, May 20, for the construction of the Dugway Brook branch sewer between Dugway Brook and Lakeview Rd. Robert Hoffman is City Engr.

Coshocton, Ohio—Bids will soon be received for the construction of a sewage-disposal plant. The estimated cost is $60,000. Chester & Fleming, Union Bank Bldg., Pittsburgh, Penn., is Engr.

+Kent, Ohio—The contract for the construction of a sewer system has been awarded to W. H. HUNT & SON, Akron, at $59,481. Noted May 6.

+Lima, Ohio—The contract has been awarded to SUMMERS & HARDIN, Lima, at $7500, for the construction of 2625 ft. of 4-in. concrete sewer and two retaining walls. John K. Brice is Engr.

+Salem, Ohio—The contract for the construction of the intercepting sanitary sewer in McKinley Ave. has been awarded to the CENTRAL OHIO CONSTRUCTION CO., Salem. Noted Mar. 25.

Toledo, Ohio—Bids will be received until June 9 by A. W. Boardman, Dir., Bd. of Pub. Ser., for the construction of local sewers Nos. 1249 and 1252.

Gary, Ind.—The lowest bids received for the construction of District Sewer No. 24 were as follows: W. F. Brunt, $4215; Shea & Co., $4759; S. A. Smith, $4918. W. J. Smith is City Engr. Noted Mar. 8 and Apr. 1.

New Albany, Ind.—Plans are being prepared by S. T. Mann, City Engr., for the construction of vitrified pipe sewers. Bids will soon be received by W. Taylor, City Clk.

+New Albany, Ind.—The contract for the construction of a vitrified pipe sewer in Depauw Pl. has been awarded to M. C. UNDERWOOD, 917 West High St., New Albany.

Indianapolis, Ind.—Bids will be received until 10 a.m., May 14, by the Board of Public Works, for the construction of a sewer in Chester St. from Michigan to Walnut St.

+Aurora, Ill.—The contract for constructing sewers in various streets has been awarded to R. P. KEUHN, Aurora, at $4406.

Berwyn, Ill.—Bids will be received until 8 p.m., May 18, by the Board of Local Improvements for constructing sewers. N. Lindahl is Secy., Bd. of Local Imp.

Bloomington, Ill.—(Official)—The city contemplates the construction of one mile of 12-in. pipe sewer. E. H. Parkard is City Engr.

Chicago, Ill.—Bids will be received until May 14 by the Board of Local Improvements for constructing tile-pipe sewers in Aberdeen, West Congress and other streets.

Glencoe, Ill.—Bids will be received until 8 p.m., May 18, by the Board of Local Improvements for constructing 10,588 ft. of 8-in. vitrified pipe sewers. Windes & March, Winnetka, Ill., is Engr.

Normal, Ill.—(Official)—Plans are being prepared for the construction of a septic tank. George C. Broyhill is Engr.

+Ottawa, Ill.—The contract for the construction of a sewer system in the northern part of the city has been awarded to GREEN & SONS, Ottawa, at $87,037.

Peoria, Ill.—(Official)—The contract for the construction of a sewer system will be awarded this fall. The estimated cost is $235,000. L. D. Jeffries is City Engr. Noted Sept. 3.

Wenoma, Ill.—(Official)—Bids will be received about June 15 by the Board of Local Improvements for the construction of a sewer system with septic tanks. The estimated cost is $25,000. F. H. Ong is City Clk. Noted May 6.

Delavan, Wis.—Bids will be received in about two months by H. J. Doane, City Clk., for the construction of storm and sanitary sewers. P. J. Hurtgen, Burlington, is Engr.

Green Bay, Wis.—Bids will be received until 10 a.m., May 18, by the Sewerage Committee for constructing sewers in Van Buren and Baird St. and in Webster Ave.

Kenosha, Wis.—(Official)—All bids received by B. C. Brennan, City Engr., Apr. 23, for the construction of 1500 ft. of 84-in., 2700 ft. of 66-in. and 1200 ft. of 36-in. sewers have been rejected. New bids will be received until May 21. Noted May 21.

+Milwaukee, Wis.—Contracts have been awarded by the Department of Public Works for sewer construction to T. HERMAN, 965 27th St., Milwaukee, at $8389, and F. N. NAKIELSKI, Hawley Rd., Milwaukee, at $9850.

Randolph, Wis.—The city has commissioned G. R. Bascom, University of Wisconsin, Madison, to prepare a preliminary report on the construction of sewers and a sewage-disposal plant.

Wausau, Wis.—Plans are being prepared for the construction of one mile of 15- to 48-in. vitrified pipe sewers. B. C. Gowan is City Engr.

+Wausau, Wis.—The contract for the construction of 3600 ft. of 10- to 15-in. vitrified pipe sewer has been awarded to CARL KOTZ, 634 Grand Ave., Wausau. F. KRAUSE, 1018 Third Ave., Wausau, has been awarded the contract for constructing 2000 ft. of 10- to 12-in. vitrified pipe sewer.

West Allis, Wis.—Bids will be received until June 1 by the Board of Public Works for the construction of 800 ft. of 10-in., 300 ft. of 12-in., 900 ft. of 15-in., 300 ft. of 18-in. vitrified pipe storm sewer, and 1600 ft. of 42-in. concrete segment-block sewers. E. G. Orbert is City Engr. Noted Apr. 29.

+Ames, Iowa—The contract for constructing sanitary sewers and sub-drains has been awarded to COLE BROS. A. B. Maxwell is City Clk. Noted Apr. 22.

+Des Moines, Iowa—The contract for the construction of a sewer system in the State Fair Grounds has been awarded to F. C. YOUNG, Iowa City, at $8957. Noted Mar. 18.

Hartley, Iowa—Bids will be received until May 18 by the City Clerk for the construction of sewers. The estimated cost is $35,000. Bruce & Standeven, Omaha, Neb., is Engr. Noted Apr. 1.

+Jewell Junction, Iowa—(Jewell post office)—(Official)—Contracts have been awarded for sewer construction to the DEARBORN CONSTRUCTION CO., Waterloo, at $1468, the ADAMS MARTIN CO., Centerville, at $3597, and the DEARBORN CONSTRUCTION CO., Waterloo, at $9014. Noted Apr. 1 and 22.

+Sioux City, Iowa—The contract for the construction of the North Riverside sewer system has been awarded to WARD & WRIGHTON, Sioux City. The estimated cost is $12,000. Noted May 6.

Tripoli, Iowa—Bids will be received until 2 p.m., May 25, by H. W. Bockhaus, City Clk., for the construction of a sewer system and sewage-disposal plant. M. Ischirgi & Sons, Cedar Rapids, is Engr. Noted Mar. 11 and Apr. 22.

Eveleth, Minn.—Plans are being prepared by Edward Bass, Consult. Engr., State University, Minneapolis, for the construction of a septic tank. The estimated cost is $20,000. Noted Apr. 22.

+New Ulm, Minn.—(Official)—The contract has been awarded to the DEARBORN CONSTRUCTING CO., Waterloo, Iowa, at $19,575, for constructing sewers in various streets. F. D. Minium is City Engr. Noted Apr. 29.

+St. Paul, Minn.—The contract for the construction of the Grantham St. sewer has been awarded to J. J. CONNOLLY, at $11,925.

St. Paul, Minn.—Plans are being prepared by Oscar Claussen, City Engr., for the construction of the Como-Snelling sewer system in the State Fair grounds. The project is estimated to cost $289,000. Noted Apr. 22.

Junction City, Kan.—Bids will be received until 9 a.m., May 14, by T. W. Dorn, City Clk., for constructing 3½ miles of sanitary sewers. W. V. Buck is City Engr.

Topeka, Kan.—A. R. Young, City Engr., will prepare plans for the construction of a sewer in East Topeka.

+Lincoln, Neb.—The contract for constructing sewers has been awarded to J. M. DEFFENBOUGH, Lincoln, at $8350. T. H. Bery is City Clk.

+Sioux Falls, S. D.—(Official)—The contract for sewer construction has been awarded to MYRINO BROS., Sioux Falls. S. B. Howe is City Engr. Noted Apr. 22.

Watertown, S. D.—Bids will be received until May 17 by T. W. Shreiber, City Engr., for the purchase of $88,000 in bonds, the proceeds of which will be used for the construction of a sewer system. Noted May 6.

Bozeman, Mont.—Bids will be received until 5 p.m., May 20, by A. M. Brandenburg, City Clk., for the construction of 1560 lin.ft. of 6- to 10-in. storm sewers with appurtenances and branches.

St. Louis, Mo.—The Board of Public Service contemplates constructing a relief sewer in the Ferry St. Sewer District. The estimated cost is $71,000.

Austin, Tex.—An election will be held June 2 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for the construction of sanitary sewers.

Seattle, Wash.—Bids have been received for the construction of sewers in Leary Ave., as follows: Benjamin, Hawkey & Gartner, Seattle, $18,974; L. R. Ellis, Seattle, $19,739; Calasurdo & Co., Seattle, $20,081; G. Aggenteri, Seattle, $20,937. A. H. Dimock is City Engr.

Astoria, Ore.—The city contemplates the construction of a 12-in. sewer in 45th St., an 8-in. lateral sewer in Bonds St. and the construction of sewers in various other streets. Olof Anderson is Audr.

North Bend, Ore.—Bids will soon be received for the construction of a sewer system. The estimated cost is $25,000. Noted May 6.

Arlington, Calif.—(Riverside post office)—An election will soon be held to vote on the question of issuing $40,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

✚Calistoga, Calif.—The contract for the construction of a sewer system has been awarded to BORDWELL & ZIMMERMAN, Calistoga, at $14,248. Other bids were: D. L. Beinfield, $16,495; L. L. Page, $17,482; John H. May, $14,563; Schuyler & Edwards, $16,600; Harry Thorsen, $18,900. W. H. Castner is City Engr. Noted Apr. 29.

✚Sacramento, Calif.—(Official)—Bids were received Apr. 29 for the construction of Unit No. 3 of the reinforced-concrete trunk line sewer as follows: JAMES KENNEDY, Los Angeles, $81,052 (awarded contract); Peterson & Grier, San Francisco, $123,820; Graff Construction Co., Sacramento, $115,608; Tibbetts Pacific Co., San Francisco, $94,697; Clinton Fireproofing Co. of California, $81,013; Edward Malley, San Francisco, $118,190; Williams & Belsar, San Francisco, $143,727; Carl Ehrhart, San Francisco, $108,939; Teichert & Ambrose, Sacramento, $104,608; Ross Construction Co., Sacramento, $122,326; McGillvery Construction Co., Sacramento, $98,607; Carnahan & Mulford, San Francisco, $123,690; F. Rolandi, San Francisco, $91,548; Contra Costa Construction Co., Berkeley, $149,633; Matthews Construction Co., Sacramento, $99,768; Thomas S. Hutton, San Francisco, $132,204; Wrightson, Anderson & Yost, Sacramento, $113,291.

✚Los Angeles, Calif.—The contract has been awarded to ADAM DALMATIN, Los Angeles, at $6300, for the construction of a sewer in Mission Rd. from Baldwin St. to North Boardway. Noted May 6.

✚Los Angeles, Calif.—The contract for the construction of a sewer in Medford St. from Soto to Murchinson St. has been awarded to J. J. PAPAC, Los Angeles, at $5448. Noted May 6.

Joliette, Que.—(Official)—The Town Council will construct sewers, estimated to cost $16,000, by day labor. J. A. Martin is Engr. Noted May 6.

Nelson, Ont.—The city has been granted a permit by the Provincial Board of Health for the construction of a sewage-disposal plant. The estimated cost is $150,000.

Stratford, Ont.—Bids will be received until 5 p.m., May 15, by A. B. Mason, City Engr., for 5460 ft. of 48-in. and 6200 of 36-in. reinforced concrete sewer tile.

GARBAGE

New York, N. Y.—(Official)—Bids will be received until 10:30 a.m., May 21, by S. S. Goldwater, Pres., Dept. of Health, under proposition "A," also "B," for the removal of night soil and dead animals from the several boroughs for a period of five years beginning July 1, 1915.

New York, N. Y.—(Borough of Queens)—(Official)—The low bidder for Section 544, of the disposal of garbage, rubbish and ashes in the fifth ward for the summer months was C. R. Van Netton, at $10,940.

Duluth, Minn.—The city contemplates installing an incinerating plant.

STREETS AND ROADS

★Augusta, Maine—(Official)—Bids will be received until 11 a.m., May 19, by the State Highway Commission, for constructing roads in various towns. Lyman H. Nelson is Chn. of the Comn.

✚Boston, Mass.—The contract for the construction of 15,000 in.ft. of state road in Salem and Swampscott has been awarded to M. McDONOUGH Co., Swampscott, at $21,403. Other bids were: J. B. Grue, $18,865; D. J. Sheehan, Lynn, $23,110; Antony Pallotto, Lowell, $20,683; F. E. Ellis, Melrose, $29,549; P. A. Moynihan, South Hamilton, $23,893; A. G. Tomasello, Boston, $24,965; Rim Contracting Co., Boston, $25.795. Noted Apr. 29.

Boston, Mass.—Bids will be received until May 17 by Public Works Department for bitulithic pavements in Raven St. and Powellton Rd., Dorchester District. Patrick O'Hearn is Acting Comr.

✚Boston, Mass.—The contract for the construction of 8000 lin.ft. of state road in Raynham has been awarded by the State Highway Commission to SNOW & FARRINGTON, Wrentham, at $11,068. Other bids were: H. L. Thomas, Middleboro, $11,325; Andrew M. Cusack, Boston, $11,428; C. I. Alger, Paunton, $11,445; Z. L. Conedy, Myricks, $11,743; D. J. Sheehan, Lynn, $11,892; J. M. McCormick, Providence, R. I., $12,115; R. F. Hudson, Melrose, $12,641; O. W. Ruckle, Providence, R. I., $12,847; A. Williams, Boston, $13,172; C. F. Kelly, Somersville, $13,881; Small & Ingalls, Bar Harbor, Maine, $14,112. Arthur W. Dean, 15 Ashburton Pl., is Ch. Engr. Noted Apr. 15.

✚Boston, Mass.—Bids were received Apr. 27 and contracts awarded for constructing (a) 8100 lin.ft. of state road in Somerset and Swansea, (b) 6260 lin.ft. of state road in Rehoboth, (c) 5500 lin.ft. of state road in Reading, (d) 6200 lin.ft. of state road in Dighton and Taunton, (e) 4700 lin.ft. of state road in Beverly, (f) 7400 lin.ft. of state road in Somerset as follows: HAMILTON FLOOD, Quincy, (a) $11,128, (d) $7710 (awarded contract); J. M. McCORMICK, East Providence, R. I., (a) $12,213, (d) $8689, (f) $9887 (awarded contract); O. W. Ruckle, Providence, R. I., (a) $12,289, (b) $7862, (d) $9204, (f) $10,560; H. E. CUSHING, Seekonk, (b) $7085 (awarded contract); Z. L. Conedy, Myricks, (b) $7267, (f) $9917; E. J. Rourke, Abington, (b) $7593; B. E. Savage, Worcester, (b) $8553; J. A. GAFFEY, Medford, (c) $13,220, (e) $6783 (awarded contract); P. A. Moynihan, South Hamilton, (c) $13,615, (e) $7367; R. P. Hudson, Melrose, (c) $13,880; Anthony Palloto, Lowell, (c) $15,261, (b) $7702; F. E. Ellis, Melrose, (c) $15,851, (e) $7187; A. Williams & Co., Boston, (c) $15,880, (c) $40,887, (f) $16,494; D. J. Sheehan, Lynn, (c) $16,075, (e) $7927; Daniel O'Connell's Sons, Holyoke, (c) $18,755; J. H. Kerr, Rumford, Maine, (c) $18,800; J. E. Watkins, Hudson, (e) $7037; A. G. Tomasello, Boston, (e) $7037. Noted Apr. 22.

✚Boston, Mass.—Bids were received May 4 for constructing (a) 10,900 lin.ft. of state road in Abington, Brockton and Whitman, (b) 6500 lin.ft. of state road in Deerfield as follows: E. J. ROURKE, Abington, (a) $13,760 (awarded contract); Z. L. Conedy, Myricks, (a) $14,860; F. E. Ellis, Melrose, (b) $7917; O. W. Ruckle, Providence, R. I., (b) $5945; Daniel O'Connell's Sons, Holyoke, (b) $6896. Noted Apr. 29.

✚Boston, Mass.—Bids were received May 4 for constructing (a) 10,100 lin.ft. of state road in Shrewsbury, (b) 10,400 lin.ft. of state road in Lawrence as follows: D. E. SAVAGE, Worcester, (a) $9550 (awarded contract); C. E. Horne, Millbury, (a) $10,182, (b) $29,292; Rowe Contracting Co., Boston, (a) $11,583; R. F. Hudson, Melrose, (a) $12,290; Joseph Wagenbach & Son, Lawrence, (b) $23,299; Merrimac Construction Co., Boston, (b) $23,701; O. W. Ruckle, Providence, R. I., (b) $23,554; C. H. Kelly, Somerville, (b) $27,792. Noted Apr. 29.

Boston, Mass.—Bids will be received until May 18 by the State Highway Commission for the construction of 6500 lin.ft. of road, two concrete bridges in Williamstown, and for 6400 lin.ft. of road in Wrentham.

✚Manchester, Mass.—A contract for building two miles of macadam roadway has been awarded to R. F. HUDSON, Melrose, at $22,229. The town will furnish the asphalt at a cost of $4220.

Providence, R. I.—The City Council has authorized the paving of Eddy St., at a cost of $30,000, and Benefit St., at $64,000.

★Albany, N. Y.—(Official)—Bids will be received until 1 p.m., June 1, by Edwin Duffey, State Highway Comr., for repair work in various counties.

✚★Albany, N. Y.—(Official)—Bids were received May 5 by Edwin Duffey, State Highway Comr., for improving highways in various counties as follows:

Road No. 1259, Allegany County, 4 miles: W. J. FOX, Oramel, N. Y., $36,624 (awarded contract); Sullivan Construction Co., Syracuse, $39,705; O. M. Severson Co., Erie, Penn., $38,008; Bison City Engineering & Contracting Co., Inc., Buffalo, $38,997; John Johnson Construction Co., Buffalo, $39,300; McNerney Construction Co., Canton, Penn., $39,059; Busch & Percival, Buffalo, $36,937; Greece Construction Co., Rochester, $34,946; F. H. Higgins, Olean, $39,094; Michael Murphy, Rochester, $36,995.

Road No. 1260, Allegany County, 8.64 miles: Sullivan Construction Co., Syracuse, $98,581; O. M. Severson & Co., Erie, Penn., $97,961; P. H. Murray, Rochester, $97,619; Busch & Percival, Buffalo, $95,710; McNerney Construction Co., Canton, Penn., $97,674; John Johnson Construction Co., Buffalo, $96.323; Bradley & Nolan, Corning, $101,012; Michael Murphy, Rochester, $101,084; BISON CITY ENGINEERING & CONTRACTING CO., INC., Buffalo, $95,636 (awarded contract); F. H. Higgins, Olean, $100,764.

Road No. 1254, Cattaraugus County, 4.43 miles: Lake Shore Construction & Supply Co., Dunkirk, $57,130; Gleason & Davitt, Albany, $55,433; McNerney Construction Co., Canton, Penn., $57,428; H. J. GRATHWOL, Hammondsport, $52,694 (awarded contract); S. T. Benson & Co., Jamestown, $55,352; John W. Landel, Tonawanda, $57,083.

Road No. 1026, Chautauqua County, 3.99 miles: S. T. Benson & Co., Jamestown, $102,289; D. D. Dugan & Son, Olean, $97,034; THOMAS MAHONEY, Jamestown, $96,461 (awarded contract); Gleason & Davitt, Albany, $101,559; Parker-Hassam Paving Co., Worcester, Mass., $106,750; Brady Oltarsh Construction Co., New York, $99,241.

Road No. 1062, Chautauqua County, 1.59 miles: Dunkirk Construction Co., Dunkirk, $48,802; O. M. Severson & Co., Erie, Penn., $50,503; John Johnson Construction Co., Buffalo, $52,246; J. B. HURLEY CO., INC., Fredonia, $47,670 (awarded contract); Lake Shore Construction & Supply Co., Dunkirk, $48,278; Gleason & Davitt, Albany, $51,424; George Holler, Albany, $52,645; Parker-Hassam Paving Co., Worcester, Mass., $52,882; I. B. Contracting Corporation, New York, $51.966.

Road No. 5549, Dutchess County, 0.88 mile: Samuel Beskin, Beacon, $54,111; George Holler, Albany, $57,092; Nordone & Petrillo, James Garafano & Son, Inc., Mt. Vernon, $51,594; John I. McDonald Contracting Co., Poughkeepsie, $55,125; Cornelius Vanderbilt, West Brighton, $59,490; John L. Hayes Construction Co., Yonkers, $54,854; Gifford Construction Co., Jamaica, $54,544; Topeka Paving Co., Inc., New York, $58,448. Award withheld.

Road No. 5552, Franklin County, 8.81 miles: DE GRAFF & HOGEBOOM, Kingston, $86,661 (awarded contract); James Garafano & Son, Inc., Mt. Vernon, $91,574; Weed & Walsh, Mechanicsville, $92,261; Ross-Hallenbeck Construction Co., Copenhagen, $88,183; Dana W. Robbins Co., Inc., New York, $91,179; A. J. Rockwood, Rochester, $88,258; W. T. Thayer & Co., Chateaugay, $89,880; James E. Martin, Utica, $89,909.

Road No. 1258, Hamilton County, 5.01 miles: Fulton Engineering Co., Inc., Albany, $62,875; HIGHWAY ENGINEERING CO., INC., Albany, $59,991 (awarded contract); J. D. Moynihan Co., Inc., Taharvus, $78,508; I. B. Contracting Corporation, New York, $66,716; E. J. Anderson, Albany, $74,287, Langan Construction Corporation, Albany, $64,374; Conners & Nixdorf, Oneida, $64,998.

Road No. 1257. Herkimer County 1.81 miles: R. D. Cooper, Little Falls, $23,889; JAMES GARAFANO & SON, INC., Mt. Vernon, $20,087; Elmer J. Latus, Albany, $21,272; Flood & Van Wirt Co., Hudson Falls, $20,794.

Roads Nos. 471 and 830, Herkimer County, 3.60 miles: W. J. Kennedy, Utica, $35,467; Bison City Engineering & Contracting Co., Inc., Buffalo, $35,166; Ahearn Construction Co., Willimantic, Conn., $35,743; P. J. Kennedy, Utica, $36,074; Flood & Van Wirt Co., Hudson Falls, $31,530; E. J. Anderson, Albany, $34,583; Alonzo Schaupp, Guilderland, $31,997; Harold J. Sheilds (unsigned), Albany, $35,766. Award withheld.

Road No. 831, Herkimer County, 5.53 miles: B. F. S. Co., Herkimer, $54,912; Conroy & Nixdorf, Oneida, $59,539; Brown & Lowe Co., Schenectady, $59,824; James Garafano & Son, Inc., Mt. Vernon, $58,797; James E. Martin, Utica, $61,610; E. J. Sanderson, Albany, $55,354; M. BENNETT & SONS, Indiana, Penn., $49,829 (awarded contract); Ahearn Construction Co., Willimantic, Conn., $59,330; Harold J. Shields, Albany, $61,044; C. S. Mathusa, Albany, $58,029.

Road No. 5548, Jefferson County, 7.27 miles: William H. Ring Contracting Co., Ogdensburg, $146,828; Stanley Construction Co., Buffalo, $152,338; James E. Martin, Utica, $148,426; Frank Nordone, Mt. Vernon, $152,790; James Rossney, Buffalo, $141,931; Bison City Engineering & Contracting Co., Inc., Buffalo, $147,984; Gleason & Davitt, Albany, $146,484; Martin Murray & Co., Troy, $140,993; PATHFINDER CONSTRUCTION CO., INC., Fulton, $139,993 (awarded contract).

Road No. 1247, Livingston County, 3.51 miles: I. M. Ludington Sons, Inc., Rochester, $50,820; Freeman & Cunningham, Watervliet, $51,968; John Johnson Construction Co., Buffalo, $53,694; P. H. MURRAY, Rochester, $47,561 (awarded contract); James Garafano & Son, Inc., Mt. Vernon, $49,798; Busch & Percival, Buffalo, $55,752; Thomas Grady, Rochester, $56,486; Greece Construction Co., Rochester, $51,312; Ribstine-Holter Co., Inc., Rochester, $51,773.

Road No. 1248, Livingston County, 3.196 miles: Busch & Percival, Buffalo, $45,468; I. M. Ludington Sons, Inc., Rochester, $44,801; RIBSTINE-HOLTER CO., INC., Rochester, $43,607 (awarded contract).

Road No. 1249, Livingston County, 2.18 miles: Bison City Engineering & Contracting Co., Inc., Buffalo, $18,729; John M. Fitzwater, Rush, $18,318; Thomas Hucknall & Co., Albion, $17,725; Bert Warren and J. J. Gleason, Honeoye Falls, $19,509; P. H. Murray, Rochester, $18,604; HAROLD J. SHIELDS, Albany, $17,539 (awarded contract); Schroeder-Hicks Contracting Co., Inc., Rochester, $19,053; Ribstine-Holter Co., Rochester, $19,106.

Road No. 1261, St. Lawrence County, 5.66 miles: Thomas O'Brien, Watertown, $72,970; Burns Bros. & Haley, Watertown, $76,901; Parker-Hassam Paving Co., Worcester, Mass., $81,806; A. J. Rockwood, Rochester, $74,848; De Graff & Hogeboom, Kingston, $73,127; Dana W. Robbins, Inc., New York, $71,564; J. B. Contracting Corporation, New York, $73,626; J. H. Weidman, Syracuse, $76,193; Ross-Hallenbeck Construction Co., Copenhagen, $68,690; Monroe Roads Co., Pittsford, $76,059; Henry P. Burgard, Buffalo, $75,307. All bids were rejected.

Road No. 1263, St. Lawrence County, 10.85 miles: Brady Oltarsch Construction Co., New York, 0129,156 James E. Martin, Utica, $128,548; Burns Bros. & Haley Watertown, $133,969 Eggleston & Garthwaite, Yonkers, $117,336; I. B. Contracting Corporation, New York, $125,103; De Graff & Hogeboom, Kingston, $129,879; E. J. Anderson, Albany, 0125,240; Bison City Engineering & Contracting Co., Inc., Buffalo, $124,738; Thomas Grady, Rochester, $116,760; A. J. ROCKWOOD, Rochester, $116,760 (awarded contract); Del Engineering Co., Utica, $119,444; Monroe Roads Co., Pittsford, $122,764.

Road No. 1264, St. Lawrence County, 9.09 miles: Fulton Engineering Co., Albany, $88,805; I. B. Contracting Corporation, New York, $88,621; Dana W. Robbins, Inc., New York, $95,356; P. J. Kennedy, Utica, $85,400; Richard Hopkins, Troy, $99,669; De Graff & Hogeboom, Kingston, $93,988; A. J. ROCKWOOD, Rochester, $85,792 (awarded contract); Burns Bros. & Haley, Watertown, $99,785.

Road No. 5545, Schenectady County, 5.62 miles: F. A. Biggi, Brooklyn, $50,955; Thomas H. Karr, Troy, $53,065; Michael O'Brien, Cortland, $51,818; C. S. Mathusa, Albany, $53,779; William Green, Schenectady, $51,139; THE CURREN CORPORATION, Middletown, Conn., $44,222; Brown & Lowe Co., Schenectady, $58,360; E. J. Anderson, Albany, $51,754; J. J. Malloy, Schenectady, $49,919.

Road No. 1234, Schoharie County, 4.99 miles: De Graff & Hogeboom, Kingston, $49,088; John A. Jova, Inc., Newburgh, $46,315; Lane Construction Corporation, Meriden, Conn., $48,599; Belmar Contracting Co., Inc., Troy, $46,562; C. S. MATHUSA, Albany, $46,266 (awarded contract).

Buffalo, N. Y.—Bids will be received until 11a.m., May 21, by F. G. Ward, Comr. of Pub. Wks., for repaving Eagle, Pratt, Grider, West and Caldwell St.

+Buffalo, N. Y.—The contract for paving Wyandotte Ave. with asphalt has been awarded to HENRY P. BURGARD CO., at $12,030.

+Newburgh, N. Y.—(Official)—The contract for paving Cochecton Turnpike has been awarded to JAMES L. KEHOE, 64 Second St., Newburgh, N. Y. Noted Apr. 29.

New York, N. Y.—(Borough of Bronx)—(Official)—All bids received Apr. 2 for repairing asphalt block pavement and setting curb where necessary, were rejected. Noted Apr. 22 and May 6.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., May 19, by L. H. Pounds, Borough Pres., for improving a number of streets.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received May 5 for improving (a) Belmont Ave. from Van Sinderen to Snediker Ave. and from Alabama to Pennsylvania Ave., (b) Lincoln Pl. from Underhill to Washington Ave., (c) 21st Ave. from 60th to 64th St., as follows: Uvalde Asphalt Paving Co., (a) $4739, (b) $6203, (c) $8569; Topeka Paving Co., Inc., (a) $4719, (b) $5522, (c) $7467; Brooklyn Alcatraz Co., (a) $4520, (b) $6022, (c) $7999; Sicilian Asphalt Paving Co., (a) $4557, (b) $6422, (c) $8634; Barber Asphalt Paving Co., (a) $5357, (b) $6927, (c) $10,249. Noted Apr. 29.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received May 6 for paving (a) East 174th St., from Southern Blvd. to Bryant Ave., (b) for improving Exterior St. from East 151st St. to Jerome Ave., and (c) Overing St. from Westchester to Walker Ave. as follows: Municipal Asphalt Paving Co., (a) $4414; Asphalt Construction Co., (a) $4325, (b) $15,392; Cleveland Trinidad Paving Co., (a) $5649; Uvalde Asphalt Paving Co., (a) $4987; Barber Asphalt Paving Co., (a) $6959; P. J. Kearns Contracting Co., (b) $17,855; J. Leopold, (b) $14,598; Joseph L. Brennen, (b) $16,788; F. Cotter Contracting Co., (b) $16,256; Degnon Contracting Co,. (b) $19,426; Patrick H. Kelly, (a) $17,691; Matthew Beard Contracting Co., (b) $16,120; Burnside Contracting Co., (b) $16,249; W. H. Callahan Contracting Co., (c) $5413; Scott Bros., (c) $5392; Peter Krameh, (c) $5143; Salvador Purificato, (c) $5507; Di Minna & Di Blasio, (c) $5070. Noted Apr. 29.

New York, N. Y.—(Borough of Manhattan)—(Official)—The city plans to pave West 24th St. from Sixth to Seventh Ave. and from Eighth to 10th Ave., East 54th St. from Third to Lexington Ave.

Oswego, N. Y.—(Official)—Bids will be received until 2 p.m., May 14, by Charles W. Linsley, Comr. of Pub. Wks., for laying vitrified brick pavement.

Troy, N. Y.—(Official)—Bids will be received until 11 a.m., May 14, by the Board of Contract and Supply for putting a binder course of bituminous concrete on the Oil Mill Hill Roads. John J. McLaughlin is Secy. of Bd.

Atlantic City, N. J.—(Official)—Bids will be received until noon, May 19, by B. M. Townsend, City Comptroller, for the sale of $101,000 and $32,000 in bonds, the proceeds of which will be used for paving.

+Cliffside Park, N. J.—(Cliffside post office)—The town has awarded the contract to the VALVOLINE OIL CO., Edgewater, N. J., for oiling the streets and roads in the town, at 6½c. per gal.

Freehold, N. J.—Bids have been received for the construction of Riverside Drive in Middletown Township, Monmouth County, as follows: J. Walter Butcher, $15,957; Charles E. Burdge, Red Bank, $16,758; Burke & Bonham Co., Plainfield, $16,667; Martin Griffin, Red Bank, $17,245; Frank C. Byram, Red Bank, $17,777; Weldon Construction Co., Rahway. Noted Apr. 8.

+Jersey City, N. J.—The contract for repaving Tuers and Clinton Ave. with wood block has been awarded to RUDOLPH SAN GIOVANNI. Noted Apr. 22.

Jersey City, N. J.—The Board of Commissioners plans to improve Linden Ave. between Hudson County Blvd. and Fowler Ave. Michael I. Fagen is City Clk.

New Brunswick, N. J.—Bids will be received until May 17 by the Board of Freeholders for 100,000 sq.yd. of road oil dust layer and 50,000 sq.yd. of asphalt binder and screenings, to be used on the county roads. Alvin B. Fox, Perth Amboy, is County Engr.

Westfield, N. J.—Bids will be received until May 17 by the Town Council for improving portions of Edgewood Parkway, Chestnut and Maple St. Charles Clark is Town Clk.

West Orange, N. J.—The Borough Council is considering the improvement of Valley Rd. with permanent pavement.

West New York, N. J.—Plans have been completed for paving Fifth St. from Bergenline Ave. to Hudson County Blvd. with granite block on a 5-in. concrete foundation. The work will also call for bluestone flagging and curbing. James L. Wolfe is Town Clk.

+Franklin, Penn.—The contract for paving Elk St. with brick has been awarded to the NORTHWESTERN CONSTRUCTION CO., Franklin.

Philadelphia, Penn.—The Highway Committee of the City Council contemplates an expenditure of $200,000 for paving streets.

+Wilkinsburg, Penn.—(Official)—The contract for improving South Ave., Hay St. and Vincent Way has been awarded to MATTHEW OTT & CO., 414 Warrington Ave., Pittsburgh, at $8489. Noted Apr. 15.

★Wilmington, Del.—(Official)—Bids will be received until 4 p.m., May 28, by the Board of Directors of the Streets and Sewer Department for paving work.

+Baltimore, Md.—The contract for repaving German St. from Hopkins Pl. to Paca St. has been awarded to SLACK & SLACK, at $38,000.

Betterton, Md.—Bids will be received until May 15 by A. H. Supplee, Secy. of City Comrs., for constructing concrete sidewalks. Kastenhuber & Anderson, Easton, Md., is Engr.

Culpeper, Va.—An election will be held May 29 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for constructing roads in Cedar Mountain District, Culpeper County.

Clarksburg, W. Va.—According to press reports, the Commissioners of Harrison County plan to hard-surface roads. Approximately $80,000 is available.

Fairmont, W. Va.—The Commissioners of Marion County will spend the remainder of a $300,000 bond issue to complete the brick, bituminous and concrete roads in Mannington District which were begun last season. Noted July 10, 1913, Feb. 12 and Apr. 3, 1914.

Fairmont, W. Va.—The Commissioners of Marion County will spend the remainder of a $400,000 bond issue and will vote on the question of issuing an additional $100,000, the proceeds of which will be used to complete the brick, bituminous and concrete roads in Fairmont District. The roads were begun last season. Noted Apr. 9, 1914.

Huntington, W. Va.—Bids will be received until 1:30 p.m., May 21, by the Board of City Commissioners for paving a number of streets.

Moundsville, W. Va.—Bids will be received until May 28 by the Commissioners Court of Marshall County for grading a portion of Reilly Hill Rd., grading and macadamizing Fairmont Pike and Boggs Run Hill Rd. in Union District. T. J. Bartrug, Alexander Bldg., Moundsville, W. Va., is Engr.

New Cumberland, W. Va.—The Commissioners of Hancock County contemplate an expenditure of $40,000 for constructing brick roads.

Pineville, W. Va.—The Commissioners of Wyoming County contemplate improving a number of roads.

Princeton, W. Va.—An election will be held May 15 to vote on the question of issuing $350,000 in bonds, the proceeds of which will be used for constructing roads in Mercer County.

St. Marys, W. Va.—Press reports state that the Commissioners of Pleasants County will spend approximately $30,000 on completing concrete roads in Washington District. The roads were begun last year.

Stealey Heights, W. Va.—(Clarksburg post office)—Bids will be received until noon, May 25, for the sale of $30,000 in bonds, the proceeds of which will be used for paving. M. B. Newlon is Town Recdr.

Wheeling, W. Va.—The Commissioners of Ohio County plan an expenditure of $165,000 for resurfacing and constructing roads.

Marshall, N. C.—Bids will be received until May 25 by the Highway Commission of Madison County for grading and draining about 1.7 miles of highway. J. B. Clingham is County Rd. Engr.

Quitman, Ga.—An election will be held May 29 to vote on the question of issuing $400,000 in bonds, the proceeds to be used for constructing roads in Brooks County.

+Gulfport, Fla.—A contract for paving 19,000 sq.yd. has been awarded to the GULFPORT CEMENT WORKS, Gulfport.

Tavares, Fla.—All bids received Apr. 15 for constructing and paving a number of roadways have been rejected. Bids will be readvertised. Noted Mar. 18.

+Birmingham, Ala.—The contract for paving Alabama Ave. from 14th to 16th St. has been awarded to H. N. BOWDRY, Birmingham, at $5060.

+Clanton, Ala.—The contract for the construction of 25 miles of road from Clanton to Maplesville has been awarded to W. H. WYNNE, Birmingham.

Evergreen, Ala.—Bids will be received until May 24 by the Commissioners of Conecuh County for grading, draining and surfacing a portion of the Evergreen and Andalusia Rd. and the Evergreen and Belleville Rd. The estimated cost of the work is $11,159. W. S. Keller, Montgomery, is State Highway Engr.

Haynesville, Ala.—Bids will be received until May 31 by the Commissioners of Lowndes County for improving a part of the Selma and Montgomery Rd. near Benton.

Huntsville, Ala.—Bids will be received until May 22 by the County Commissioners for constructing a macadam road, estimated to cost $4800. W. S. Keller, Montgomery, is State Highway Engr.

Charleston, Miss.—At a recent election the question of issuing $25,000 in bonds, the proceeds of which was to be used for constructing roads in Tallahatchie Supervisor's District No. 2, was defeated.

+Abbeville, La.—A contract for constructing nine miles of road in Vermilion Parish has been awarded to SCHACKELFORD & CO., Bayou Sara, La.

Alexandria, La.—Bids will be received until May 19 by I. W. Sylvester, City Engr., for paving Boulton Ave. from Gould Ave. to Lee St.

Baton Rouge, La.—Bids will be received until June 20 by the Commission Council for laying approximately 170,000 sq.yd. of bituminous gravel pavement, with concrete curb and gutter; also 22,000 sq.yd. of hard-surface pavement. This is an extension from May 12. Noted Apr. 29.

Convent, La.—At a recent election the citizens of St. James Parish voted in favor of issuing $200,000 in bonds, the proceeds of which will be used for improving and constructing roads.

+Lake Charles, La.—The contract for constructing 40 miles of road has been awarded to the WORTHINGTON CONSTRUCTION CO., Lake Charles. Noted Apr. 22.

+Mandeville, La.—A contract for paving a number of streets has been awarded to T. M. THORNTON.

Thibodeaux, La.—The citizens of La Fourche Parish Road District No. 2 voted in favor of issuing $80,000 in bonds, the proceeds to be used for constructing about 20 miles of hard-surface roads, from Therior Canal near Raceland to the upper end of the parish. Noted Mar. 25.

+Clarksville, Tenn.—A contract for constructing gravel surfaced roads in Montgomery County has been awarded to BLACKFORD & JANES, Cunningham, Tenn.

Waverly, Tenn.—At a recent election the citizens of Humphreys County voted in favor of issuing $250,000 in bonds, the proceeds of which will be used for constructing roads.

Catlettsburg, Ky.—At a recent election the question of issuing $500,000 in bonds, the proceeds of which was to be used for constructing roads, was defeated. Noted Apr. 3.

Dayton, Ky.—(Official)—Bids will be received until 8 p.m., May 17, by the City Council for improving Walnut St. from Second to Fourth Ave. William C. Martin is City Clk.

Hazard, Ky.—Bonds for $12,000 were sold May 1, the proceeds of which will be used for street improvements.

New Castle, Ky.—The Fiscal Court of Henry County has authorized the reconstruction of the road between New Castle and Eminence, a distance of about 3½ miles. The approximate cost of the work is $14,000.

Cleveland, Ohio—The S. H. Kleinman Co., Williamson Bldg., Cleveland, Ohio, real estate dealer, has purchased a 100-acre tract of land at the junction of Kinsman Rd. and South Kinsman Rd. The company plans to grade and drain streets and construct sidewalks and otherwise improve it. The estimated cost of the work is $65,000.

Cleveland, Ohio—(Official)—Bids will be received until noon, May 19, by the Commissioner of Purchases and Supplies for paving East 65th St. from Broadway to Heisley Ave. and East 138th St. from St. Clair to Woodworth Ave.

+Columbus, Ohio—Contracts have been awarded for paving as follows: Tenth Ave. from Cleveland to Washington Ave. to A. G. PUGH. $10,699; 15th Ave. from High to Indianola Ave. to the ANDREWS ASPHALT PAVING CO., $6460; Oakwood Park Ave. from High to Indianola Ave. to B. V. PATTERSON, $35,632; Forest St. from Stelzer to Parsons Ave. to the CLEVELAND TRINIDAD ASPHALT CO., $15,668.

Columbus, Ohio—(Official)—Bids will be received until 2 p.m., May 14, by the State Highway Commissioner for constructing roads in various counties.

Elyria, Ohio—Bids will be received until 2 p.m., May 17, by John Langton, Clk., for grading Schadon Rd.

+Ironton, Ohio—The contract for paving Center St. has been awarded to MAHL BROS., at $27,500.

+Marble Cliff, Ohio—The contract for paving Cambridge Pl. has been awarded to D. E. SULLIVAN & SON, Columbus, at $15,183. Noted Apr. 8.

Oak Hill, Ohio—The city will construct approximately 4000 lin.ft. of combined curb and gutter of concrete and 2000 sq.yd. of waterbound macadam pavement. The contract will be awarded about July 1. A. E. Campbell, Jackson, is Engr.

Steubenville, Ohio—Bids will be received until June 4 by the Commissioners of Jefferson County for the construction of the Irondale and Yellow Creek Free Turnpike. John L. Means is County Audr.

Struthers, Ohio—Bids will be received until June 9 by Jonah Richards, Village Clk., for paving Broad St. and Poland Ave. with brick.

+Urbana, Ohio—The contract for paving South Main St. has been awarded to the JOHNSON CONSTRUCTION CO., Chicago, Ill., at $38,800.

Wooster, Ohio—Bids will be received until noon, May 25, by Peter C. Given, City Clk., for grading, curbing, draining and paving with brick a portion of North Beaver St.

Indiana—(Official)—Bids will be received for road improvements in Indiana as follows: Terre Haute, until 11 a.m., May 15, by the Commissioners of Vigo County, for constructing gravel roads in Fayette and Riley Townships; New Albany, until 10 a.m., May 22, by the Commissioners of Floyd County, for constructing a road in New Albany Township; Covington, until 2 p.m., June 8, by the Commissioners of Fountain County, for constructing a gravel road in Jackson Township.

+Jackson, Mich.—(Official)—A contract for repaving approximately 15,000 sq.yd. on Main St. and 3600 sq.yd. on Seymour St. has been awarded to WILLIAM RYAN, Lansing, at $1.94 sq.yd. Noted Apr. 22.

Manistique, Mich.—At a recent election the citizens of Schoolcraft County voted in favor of issuing $75,000 in bonds the proceeds of which will be used for constructing roads.

Atlanta, Ill.—The City Council will pave five blocks with brick. The estimated cost is $16,000.

Dixon, Ill.—The city will lay brick pavement on a number of streets this spring. The estimated cost is $50,000.

Springfield, Ill.—(Official)—Bids will be received by the State Highway Commission until 11 a.m., May 20, for constructing roads in various counties.

Beloit, Wis.—Press reports state that, at a recent election, the citizens voted in favor of issuing $48,000 in bonds, the proceeds of which will be used for paving streets.

Madison, Wis.—Bids will be received until May 20 by the Board of Public Works for paving portions of First, Second, Fourth, Fifth, Mifflin, Winnebago, Railroad, Main, Buell, Dewey, Williamson, Spring, Emerald, Adams, Harrison and Kendall St. O. S. Norsman is City Clk.

+Marshfield, Wis.—(Official)—The contract has been awarded to the C. PETERSON CONSTRUCTION CO., Kenosha, for approximately 24,000 sq.yd. of pavement. W. F. Reichardt is City Engr.

+Milwaukee, Wis.—A contract for paving 20th St. with bituminous concrete on old macadam has been awarded to HASE & WEIHER, Milwaukee, at $8937.

+Sheboygan, Wis.—(Official)—Contracts have been awarded for paving as follows: Erie Ave., JOHN BRAUN, Sheboygan, $22,850; South Ninth St. and Indiana Ave., MURPHY CONSTRUCTION CO., $11,358 and $12,150, respectively; North Second St., G. H. STANCHFIELD, Fond du Lac, $15,087. Noted Apr. 29.

+Three Lakes, Wis.—The Board of Supervisors of Oneida County, Rhinelander, has awarded the contract for constructing the Three Lakes-Sugar Camp Rd. to JOHN CHICHANOWSKI, Three Lakes, at $4390.

+West Bend, Wis.—The contract for paving Main St. has been awarded to FRED EUL, Menasha, Wis., at $22,081. Noted Apr. 8.

Mankato, Minn.—According to press reports the city plans to pave 16 blocks in the business section.

+Newton, Kan.—(Official)—A contract for constructing 33,000 sq.yd. of brick, asphaltic concrete, tar concrete, bitulithic and rock asphalt pavement has been awarded to A. JAICKS CO., Chicago, Ill., at $40,082. Other bids were: J. R. Ramsey & Co., $45,279; Heaney Construction Co., $40,412; Municipal Engineering & Construction Co., $44,076. Noted Apr. 22.

Kearney, Neb.—(Official)—We have been advised by T. N. Hartzell, City Clk., that the city is considering street paving later.

Anaconda, Mont.—Press reports state that the City Council voted to pave Commercial and Main St., at an estimated cost of $100,000.

Kansas City, Mo.—Bids will be received until May 20 by the Board of Public Works for constructing approximately 11,000 sq.yd. of concrete pavement.

+St. Joseph, Mo.—Contracts have been awarded for paving Antonie St. and Prospect Ave. to DUBOIS & PETERS, at $6131; Augusta, Antonie and Poulin St. to A. M. HAFFTER, at $8352, and ½ mile of Garfield Ave. to OLSON & SCHMIDT, at $7613.

Slaton, Tex.—The City Council plans to pave sidewalks in the business and residential districts.

Longmont, Colo.—Bids will be received about June 1 for paving Main, Fourth and other streets with concrete. The estimated cost is $14,000. R. E. Richardson is City Engr. George H. Stonex is City Clk. Noted July 16, 1914.

+Phoenix, Ariz.—The lowest bid submitted for paving Madison St. with bitulithic was that of the California-Arizona Construction Co., at $2.10 per sq.ft.

Oregon City, Ore.—The City Council will soon receive bids for paving Main St. The estimated cost of the improvement is $15,500.

+Portland, Ore.—The City Commission has awarded a contract for the paving of a section of East 15th St. to the OREGON INDEPENDENT PAVING CO., at $5093.

Portland, Ore.—Proceedings have been started for hard-surfacing Shaver St., from Commercial St. to Capital Ave., the estimated cost of which is $36,497.

Alameda, Calif.—Bids will be received until May 11 by the City Council for the sale of $200,000 in bonds, the proceeds to be used for paving and improving streets.

+Lindsay, Calif.—The City Council has awarded a contract for the paving of 1750 lin.ft. on Sweet Briar Ave. to the

WORSWICK STREET PAVING CO., Fresno, Calif., at 15 cents per sq.ft.

Long Beach, Calif.—The city contemplates an expenditure of $250,000 for street improvements.

Los Angeles, Calif.—Bids will be received until 2 p.m., May 17, by the Board of Supervisors of Los Angeles County for improving a portion of La Ballon Rd., in County Road District No. 4.

+Pasadena, Calif.—The contract for improving Arroyo Drive from Westminster Drive to Grand Ave. has been awarded to ANDREW HOLLOWAY, 471 South Broadway, at $18,806.

+Riverside, Calif.—(Official)—The contract for improving Seventh St. from Comer to Kansas Ave. has been awarded to the STAR CEMENT CO., 217 Loring Blk., Riverside. Noted Apr. 22.

+Riverside, Calif.—(Official)—The contract for improving a portion of Fairmount Blvd. has been awarded to the JOHNSON-SHEA CO., Riverside, at $11,397.

+Sacramento, Calif.—The City Commission has awarded a contract for the paving of D St., between 11th and 15th, to the McGILLIVRAY CONSTRUCTION CO., at $8499.

Sacramento, Calif.—(Official)—Bids will be received until 2 p.m., May 24, by the State Highway Commission, 515 Forum Bldg., for constructing state highways, as follows: Tehama County, from Red Bluff to the northern boundary, 12.7 miles; Tehama County, from Proberta to Red Bluff, 6.5 miles; Kings County, from Hanford to the eastern boundary, 8.9 miles; Los Angeles County, from Saugus to Castaic, 4.2 miles. Austin B. Fletcher is Highway Engr.

+Sacramento, Calif.—The State Highway Commission has awarded contracts for highway construction as follows: Sonoma County, from Willow Brook to southerly boundary, to TWOHY BROS., San Francisco, at $39,729; Contra Costa County, from Richmond to Pinole, to BATES, BORLAND & AYER, Oakland, at $28,082; Monterey County, from Salinas to Lagunitas, to T. M. BURNS, Sacramento, at $30,662; Monterey County, from Bradley to San Ardo, to the FRANK H. SMITH CO., Eureka, at $92,435. Noted Apr. 15 and May 6.

Montreal, Que.—Concrete and asphalt sidewalks, costing $611,616, will be laid this season, of which one-half the cost will be paid by the city and the other half by the property owners benefited.

INDUSTRIAL WORKS

Boston, Mass.—The United States Radiator Corporation, 234 Congress St., Boston, Mass., will build two warehouses.

+Boston, Mass.—The contract for the construction of a one-story, brick, public garage on Hyde Park Ave. and Everett St., for A. Waterman, has been awarded to S. L. MILTON, 44 Bromfield St.

Salem, Mass.—The factory of the Cunney Leather Co., Proctor St., which was recently destroyed by fire, will be rebuilt. It will be occupied by the Acme Leather Co., Peabody, Mass.

Southbridge, Mass.—Bids will be received until May 14 for the construction of a two-story, 70x90-ft., reinforced-concrete and terra cotta building for L. E. Bradley, on Crane St. Roger E. Coolidge is Arch.

+Worcester, Mass.—The contract for the construction of a three-story, 46x112-ft., reinforced-concrete and terra cotta garage for the H. H. Bigelow Estate, has been awarded to W. M. BAILEY, 141 Milk St., Boston, Mass. Noted Nov. 19, 1914.

+Bridgeport, Conn.—The Bridgeport Projectile Co. has awarded a contract to the SAMUEL AUSTIN & SON CO., for the construction of a 100x400-ft. forge shop, a 60x550-ft. machine shop, a 60x150-ft. power plant, and a 50x100-ft. accumulator building.

+New York, N. Y.—(Borough of Brooklyn)—The contract for the construction of a five-story smoke-house on Degraw St. for the International Provision Co., has been awarded to the LUSTBADER CONSTRUCTION CO., 163 East 82nd St., (Borough of Manhattan). Charles Werner, 316 Flatbush Ave., is Arch. It will cost about $25,000.

+New York, N. Y.—(Borough of Brooklyn)—JOHN THATCHER & SON, 60 Park Ave., has been awarded the contract for the construction of a two-story, 100x120-ft. foundry for M. H. Hamsley, foot of 26th St. The estimated cost is $40,000. William Higginson, 13 Park Row (Borough of Manhattan), is Arch.

+New York, N. Y.—(Borough of Queens)—The contract has been awarded to EDWARD J. ALQUIST, 312 West 42nd St. (Borough of Manhattan), for the construction of a three-story, 50x87-ft., brick factory on Beebee Ave. and William St., Long Island City, for the American Clip Co., 366 Gerard Ave. (Borough of Manhattan). It will cost $10,000. R. H. Morris, 949 Broadway (Borough of Manhattan), is Arch.

+New York, N. Y.—(Borough of Queens)—(Official)—The Courtney Developing Co., 1123 Broadway, New York, N. Y., has awarded the contract to the TURNER CONSTRUCTION CO., for the construction of a one- and two-story, 235x265-ft., reinforced-concrete building on Annabel Ave., Long Island City. Timmis & Chapman, 315 Fifth Ave., New York, N. Y., is Engr. Noted May 6.

+Bayonne, N. J.—(Official)—The Vacuum Oil Co. has awarded the contract to the TURNER CONSTRUCTION CO., 11 Broadway, New York, N. Y., for the construction of six reinforced-concrete buildings. E. B. Van Leuvan is Engr.

Camden, N. J.—William F. Taubel, Riverside, N. J., will build a hosiery mill at Eighth and Spruce St.

Oil City, Penn.—Bids have been received for the construction of a one-story, 38x150-ft., brick and reinforced-concrete car-barn, with a 16x100-ft. wing, for the Citizens Traction Co. Day & Zimmerman, 611 Chestnut St., Philadelphia, is Arch. Noted Apr. 8.

Philadelphia, Penn.—Bids are being received for the construction of a three-story, 50x85-ft., brick warehouse at 38th and Powelton Ave. for the Powelton Storage Co., 38th and Powelton Ave. H. B. Peterson, 34 South 17th St., is Arch. Noted Apr. 15.

+Philadelphia, Penn.—(Official)—The contract has been awarded to the FREUND-SIEDENBACH CO., Bulletin Bldg., at $25,000, for the construction of a one-story, 80x115-ft. garage for Samuel Sternberger, Tenth & Filbert St. Sauer & Hahn, 112 Chestnut St., is Arch. Noted May 6.

Philadelphia, Penn.—(Official)—William Steele & Sons, Arch., 1600 Arch St., advises us that bids will be received until May 15 by the Estate of C. J. Milne, 11th and Washington St., for the construction of a three-story, 59x76-ft., reinforced-concrete garage, to cost about $25,000. Noted May 6.

+Baltimore, Md.—(Official)—The Canton Co., Commerce and Water St., has awarded the contract to the BURNS & RUSSELL CO., for the construction of a four-story, brick building, and a one-story building. F. L. Simon, care of Canton Co., is Engr. Noted May 6.

Richwood, W. Va.—The Cherry River Extract Co. will build a $500,000 plant. The main building will be of reinforced concrete, 100x300 ft .

Charlotte, N. C.—According to press reports, the Gulf Refining Co., Frick Annex, Pittsburgh, Penn., will build a $50,000 plant.

Laurinburg, N. C.—R. E. Lee and James A. Jones plan the construction of a $200,000 yarn mill.

Decatur, Ala.—The plant of the Lynnville Mill & Elevator Co., which was recently destroyed by fire, will be rebuilt at a cost of $75,000.

+Fort Payne, Ala.—W. B. Davis & Son has awarded the contract to GEORGE A. BUSHONG, for the construction of a one-story, 60x150-ft., and a three-story, 60x150-ft. addition to its hosiery mill.

North Birmingham, Ala.—(Birmingham post office)—It is reported that Armour & Co., Union Stock Yards, Chicago, Ill., has purchased a 60-acre site, and will build a $500,000 packing plant.

Chattanooga, Tenn.—The Andrews Paper Box Co. will build a three-story, 80x80-ft. addition to its factory. It will also build an office building. The total cost will be $30,000.

+Cleveland, Ohio—The contract for the construction of a seven-story warehouse at East 23rd and Lakeside Ave. for the Fischer Bros. Co., has been awarded to the F. W. MARK CONSTRUCTION CO., 314 Leader News Bldg. The Forest City Engineering Co., Hippodrome Bldg., is Arch. The estimated cost is $150,000. Noted Apr. 15.

Cleveland, Ohio—F. G. Walker, Arch. of the National Acme Mfg. Co., Stanton Rd., has prepared plans for the construction of a one-story, 67x216 ft., and a seven-story, 50x216 ft. addition to its plant.

Mansfield, Ohio—The Henry Burkhardt Packing Co. will build a four-story, brick and concrete cold-storage plant on Irwin St. The estimated cost is $20,000.

Steubenville, Ohio—The Steubenville Stone Co. will build a four-story, 21x140-ft. warehouse.

Youngstown, Ohio—The Youngstown Sheet & Tube Co. will soon award contracts for the proposed addition to its rolling mills to cost $2,000,000.

Detroit, Mich.—O. A. Green, 79 Alexandrine Ave. E., has obtained a permit, and will build a one-story garage on Hunt Ave., to cost $12,000.

Chicago, Ill.—(Official)—The proposed central produce market will include an eight-story cold-storage warehouse and freight station, three-story market, office building, auction building, river-front freight-house and dock, garage, and a power house, all of reinforced concrete. The plan will cost $20,000,000. Anderson Pace, 84 South Water St., is Secy. Noted Mar. 11.

Chicago, Ill.—The Erie Artificial Ice Co., 4600 West Erie St., will build a one-story, brick addition to its plant to cost $13,500. Bernard Berthel is Arch.

Omaha, Neb.—(Official)—The Herald Building Co. will start work soon on the construction of an eight-story, 66x132-ft., reinforced-concrete and brick building, to cost about $300,000. Thomas R. Kimball, 503 McCoyne Bldg., is Arch. Noted Apr. 29.

Billings, Mont.—The H. H. Franklin Mfg. Co., will build a three-story addition to its plant, to cost $25,000. Gordon Wright is Arch.

+Houston, Tex.—The Western Newspaper Union, 1120 Franklin Ave., W. M. Harper, Mgr., has awarded the contract for the construction of a two-story building on Walker Ave. to G. C. STREET, JR. G. W. Collignon is Arch.

Eagle, Idaho—The Boise Valley Packing Co. has been incorporated with a capital of $20,000, and will build a meat packing plant.

Seattle, Wash.—(Official)—Bebb & Gould, Arch., Denny Bldg., advises us that construction will start in June on a one-story, 120x160-ft., reinforced-concrete printing plant for Tucker Hanford Co. Noted Apr. 29.

+Spokane, Wash.—The contract for the concrete work on the construction of the Spokane Union Stock Yards has been awarded to C. M. PAYNE, at approximately $15,000.

Tacoma, Wash.—(Official)—E. A. Sims, Port Townsend, Wash., advises us that no construction work will be started as yet on the proposed cold-storage plant. Noted Apr. 29.

+Portland, Ore.—The contract for the construction of a four-story garage at Broadway and Davis St., has been awarded by Gay Lombard to A. C. MEYER, at approximately $40,000.

Oakland, Calif.—The Pacific Coast Shredded Wheat Co. will build a factory to cost between $350,000 and $500,000. F. M. Clough, Syndicate Bldg., is Secy. and Treas.

+San Francisco, Calif.—Charles F. Hanlon has awarded the contract for the construction of a three-story, concrete garage at Bush St. and St. George Alley, to P. A. PALMER, Monadnock Bldg., at $32,000.

San Francisco, Calif.—The Lewis Packing Co. will construct a three-story factory at Columbus Ave. and Chestnut St.

FEDERAL GOVERNMENT WORK

★Dredging—Portland, Maine—Bids will be received until noon, May 25, by Maj. F. A. Pope, U. S. Engineers Office, 537 Congress St., Portland, for dredging in Portland Harbor.

Repairing Wharf—New London, Conn.—Bids will be received until 2 p.m., May 22, by J. T. Yates, Lighthouse Inspector, Tompkinsville, N. Y., for repairing the U. S. lighthouse service wharf at New London.

✚Residence—Cape Vincent, N. Y.—The contract has been awarded to J. A. SCOBELL, Cape Vincent, at $7495, for constructing a residence at the U. S. fisheries station. Noted Apr. 15.

★Dredging—New York, N. Y.—Bids will be received until 2:30 p.m., May 18, by Frederic C. Howe, Comr. of Immigration, Ellis Island, New York Harbor, for dredging at the U. S. immigration station, Ellis Island.

Plumbing System—New York, N. Y.—Bids will be received until 3 p.m., June 2, by James A. Wetmore, Acting Superv. Arch., Treasury Dept., Washington, D. C., for installing a new plumbing system in the U. S. post office and courthouse, New York.

★Sea Wall—New York, N. Y.—Bids will be received until 2:30 p.m., May 18, by Frederic C. Howe, Comr. of Immigration, Ellis Island, New York Harbor, for constructing a sea wall at the U. S. immigration station.

✚Building—Beltsville, Md.—The contract has been awarded to the J. L. ROBINSON CONSTRUCTION CO., Baltimore, at $5000, for constructing a brick and concrete building for the Agricultural Department. Noted Apr. 22.

✚Swimming Pools—Washington, D. C.—The contract has been awarded to A. S. GASKINS & SONS, Washington, D. C., at $13,900, by the Commissioners of the District of Columbia, for constructing swimming pools in playgrounds.

Shipbuilding Cranes—Norfolk, Va.—Bids will be received until 11 a.m., June 12, by H. R. Stanford, Ch. of Bureau of Yards and Docks, Washington, D. C., for shipbuilding cranes for the Norfolk Navy Yard. Noted May 6.

Locks—Ravenswood, W. Va.—The Ohio River Board of Engineers has approved plans for the construction of locks for Ohio River dams Nos. 21 and 22.

Attendants' Quarters—Tampa, Fla.—Bids will be received until 3 p.m., June 14, by James A. Wetmore, Acting Superv. Arch., Treasury Dept., Washington, D. C., for constructing complete attendants' quarters, disinfecting shed, oil house and wharf at the quarantine station at Tampa Bay.

★Guard Gate—Louisville, Ky.—Bids will be received until noon, June 4, by Maj. J. C. Oakes, U. S. Engineer Office, Louisville, for erecting one Miering guard gate of two leaves for lock No. 41, Ohio River.

Coast Guard Station—Milwaukee, Wis.—Bids will be received by Capt. E. P. Bertholf, Washington, D. C., until May 27, for constructing a coast guard station at Milwaukee.

✚★Dipper Dredge—Duluth, Minn.—The contract has been awarded to the HARTMAN-GREILING CO., Green Bay, Wis., at $104,400, for constructing and delivering the steel-hull dipper dredge "Col. D. D. Gaillard." Noted Feb. 25 and Apr. 22.

Water System—Rosebud, Mont.—Bids were received May 1 for installing a water system at the Custer Cemetery, Crow Agency, as follows: W. D. Lovell, Minneapolis, Minn., $6000; Billings Engineering & Contracting Co., Billings, $8960, and E. Lingstrom, Billings, $9200. Noted Apr. 8.

Dormitory—Cherokee, Okla.—Bids were received May 5 by the Commissioner of Indian Affairs, Washington, D. C., for the construction of a dormitory at the Cherokee Indian School as follows: A. F. Krumrei Construction Co., Muskogee, $17,975; W. D. Lovell, Minneapolis, Minn., $19,550; Horton & Smith, Montezuma, Iowa, $22,770. Noted Apr. 22.

Post Office—Cuero, Tex.—Bids will be received until 3 p.m., June 21, by James A. Wetmore, Acting Superv. Arch., Treasury Dept., Washington, D. C., for constructing complete the U. S. post office at Cuero.

Building—Marlin, Tex.—Bids will be received until 3 p.m., June 14, by James A. Wetmore, Acting Superv. Arch., Treasury Dept., Washington, D. C., for constructing complete a one-story and basement and mezzanine brick and stone building for the U. S. post office at Marlin.

★Electric-Light and Refrigerating Plant—Ft. Huachuca, Ariz.—Bids will be received until 1 p.m., June 9, by the Constructing Quartermaster, Ft. Huachuca, for constructing complete an electric-light and refrigerating plant and for a wiring system.

Stone—Lone Tree, Wash.—Bids were received Apr. 28 by Maj. J. B. Cavanaugh, Burke Bldg., Seattle, for furnishing 200,000 tons of stone for the Lone Tree jetty as follows: Hercules Sandstone Co., Tenino, Wash., Class A or B, $1.55 per ton, $310,000; McCormick Lumber Co., Seattle, $1.75 per ton, $350,000; Owens & Eden, Seattle, $1.93, $386,000; J. M. Clapp, Seattle, $1.71, $342,000; Cascade Construction Co., Seattle, $1.65, $330,000. Noted Apr. 22.

MISCELLANEOUS

✚Dredging—Scituate, Mass.—The contract for dredging in Scituate Harbor has been awarded by the State Harbor and Land Commission to the BAY STATE DREDGING CO., Boston, at 26.9c. per cu.yd., ordinary dredging; $10 per cu.yd., for ledge, and 46c. per cu.yd. for rip-rap. William F. Williams, State House, Boston, is Ch. Engr.

★Razing Power House—Albany, N. Y.—(Official)—Bids will be received by the Trustees of Public Buildings until 4 p.m., May 18, for the demolition of the power house. Lewis F. Pilcher, Capitol Bldg., is State Arch.

Pavilion—New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received by S. S. Goldwater, Pres., Board of Health, Centre and Walker St. (Borough of Manhattan), until 10:30 a.m., May 27, for constructing a contract pavilion at the Riverside Hospital, North Brother Island.

Screens—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by John A. Kingsbury, Comr., Dept. of Public Charities, Municipal Bldg., until 10:30 a.m., May 19, for constructing and installing fly screens on windows, transoms and doors of certain buildings of the various institutions under the jurisdiction of the Department of Public Charities, as specified under title "A" and title "B."

✚Corporation Yard—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for the construction of a corporation yard under the Manhattan Bridge, between Madison and Monroe St., has been awarded to the J. KRESSE CO., 1133 Broadway, New York, N. Y., at $10,800. Noted Mar. 25 and Apr. 29.

Screen Work—New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until 10:30 a.m., May 18, by John A. Kingsbury, Comr., Dept. of Charities, Municipal Bldg., (Borough of Manhattan), for the installation of certain screen work on the windows and balconies of various buildings of the Sea View Hospital.

Piles—Ridgefield Park, N. J.—Bids will be received by the Board of Village Commissioners until May 18, for excavating testpits and driving test piles. M. D. Starker is Village Clk.

★✚Levee Work—Augusta, Ga.—The contract for the construction of an earth levee along the Savannah River below the City of Augusta, has been awarded as follows: Sections 5 and 6 to the GLOBE DREDGING CO., Savannah, and C. E. GLOVER, Augusta, at about $124,000. Nisbet Wingfield is Ch. Engr. Noted Apr. 8.

Docks—Mobile, Ala.—The city has asked the Legislature for permission to vote on a $500,000 bond issue, for a municipal dock system.

✚★Doors—New Orleans, La.—The contract for furnishing and installing fire doors and steel rolling doors, etc., for the cotton warehouses and terminal now under construction on the east bank of the Mississippi River, has been awarded to the KINNEAR MFG. CO., at $86,430. Noted Apr. 22.

★Chimney and Foundation—New Orleans, La.—(Official)—Bids will be received until 8 p.m., May 19, by the Board of Commissioners of the Port of New Orleans for the construction of a tapering reinforced-concrete chimney and foundation for the cotton warehouses and terminal.

Drainage—Jackson, Miss.—(Official)—Bids will be received by J. W. Power, Secy. of State, until May 17, for concrete work, tile drainage, etc., according to plans on file in the Secretary's office.

✚Elimination of Grade Crossing—Louisville, Ky.—The contract for the construction of an underpass beneath the Louisville & Nashville R.R. tracks, between Brook and Floyd St. has been awarded to GEORGE M. EADY, at $8293. Other bidders were: H. H. Snyder, $16,539; G. R. Gregg, $10,258; J. H. Cahill, $9396; Durham Construction Co., $9634; L. W. Hancock Co., $10,236; Henry Bickel Co., $8332; William Koppelman, $8396; J. W. O'Shea Co., $10,344.

✚Ditch—Bucyrus, Ohio—The contract for constructing Mud Run Ditch has been awarded as follows: Section 1, C. B. WESTON, Marion, at $5875; Section 2, J. E. HOUSE, Wapakoneta, at $5359; tile to V. H. McDOUGAL and N. ROBINSON, at $5800. L. P. Michaelis is County Surveyor. Noted Apr. 15.

Pavilion—Cleveland, Ohio—Bids will be received by the Commissioner of Purchases and Supplies, City Hall, until noon, May 21, for the construction of a pavilion in Washington Park. Specifications may be obtained from F. H. Betz, City Arch., 420 City Hall.

Dredging—Lorain, Ohio—Bids will be received by the City Council about July 15 for dredging in the Ohio River. The work requires the removal of about 110,000 cu.yd. of silt and clay. C. M. Osborn is City Engr.

Motor Fire Apparatus—Martins Ferry, Ohio—Bids will be received by the Director of Public Safety until noon, May 29, for furnishing to the Fire Department, two combination auto hose and chemical fire engines of not less than 55 hp., A.L.A.M. rating; and hose-body having the capacity to carry not less than 1000 ft. of hose; bids to cover same with or without booster pump. The chemical tank of each engine shall be not less than 40 gal. capacity. George H. Harris is Clk.

✚River Improvement—Tiffin, Ohio—The contract for improvements in the Sandusky River has been awarded to LOUIS JONES, Fostoria, Ohio, at $61,120. Noted Dec. 31, Feb. 18 and Apr. 8.

Ditch—Anderson, Ind.—Bids will be received by the County Surveyor until 10 a.m., May 29, for constructing an open dredge ditch with five tributaries, three to be of tile and two open. William F. McVaugh is Drainage Comr.

Drainage—Corunna, Mich.—Bids will be received until May 19 by the Commissioners appointed by Judge of Probate, Matthew Bush, for constructing the Scribner and Neil drain.

Drainage—Davison, Mich.—(Official)—Bids will be received by A. H. Reid, County Drain Comr., Davison, until 10 a.m., May 28, for constructing the Dumanor's Drain.

Drainage—Flint, Mich.—(Official)—Bids will be received by A. H. Reid, County Drain Comr., Court House, Flint, until May 21, for the construction of the Soper and Extension drain.

✚Flood Protection—Indianapolis, Ind.—The contract for flood protection along the west bank of the White River, has been awarded to the CLEARY WHITE CONSTRUCTION CO., Chicago, Ill., at $458,065. B. J. T. Jeup is City Engr. Noted Mar. 18 and May 6.

✚Drainage—Danville, Ill.—The contract for about 12,000 cu.yd. of open work and 58,650 ft. of tile work, in the Jamesburg Drainage District, has been awarded to the NATIONAL DRAIN TILE CO., Terre Haute, Ind., at $41,500.

Drainage—Oak Creek, Wis.—Bids will be received by D. T. Gerber, Chn., Town Bd., until 10 a.m., June 5, for constructing the Oak Creek drain.

Street Signs—El Paso, Tex.—(Official)—The city contemplates installing new street signs throughout the city. C. W. Fassett is City Clk.

Drainage—Paris, Tex.—Plans are being formulated for organizing a drainage district on both sides of the Sulphur River in this county. Bonds will be issued and a complete system of drainage constructed.

✚Sprinkler System—Sugar Land, Tex.—The contract for the construction of an automatic sprinkler system, in the plant of the Imperial Sugar Co. has been awarded to the PHILLIPS CO., Chicago, Ill., at about $50,000.

Reclamation Work—Lordsburg, N. M.—Milton McWhorter and J. F. Winner, Oakland, Calif., are interested in a development company, recently incorporated at Playas, N. M., for the purpose of reclaiming several thousand acres of land in the Playas Valley.

Drainage—Corinne, Utah—E. W. Dunn, Brigham, is Secy. of the proposed drainage district to cost about $100,000. D. F. Brayton, Salt Lake City, is Attorney.

+Dam—Ogden, Utah—It is reported that the contract for constructing the dam for the Davis & Weber Counties Canal Co. in East Cañon Creek, has been awarded to the UTAH CONSTRUCTION CO., Ogden. The estimated cost is $150,000. J. C. Nye is Secy. Noted May 6.

+Dikes—Raymond, Wash.—The contract for constructing dikes on 200 acres of tideland along the Willapa River has been awarded by W. A. Potter, Sacramento, Calif., to the WASHINGTON DIKING CO.

Underground Work—Seattle, Wash.—Application has been made to the City Council, by A. P. Gillies, promoter of the local terminal and tunnel project under way, for a franchise for the underground portion of the work, estimated to cost $15,000,000. The entire project will entail an expenditure of approximately $50,000,000. The proposition will be financed by the Union Terminals Co., Ltd., Seattle.

+Motor Fire Apparatus—Fresno, Calif.—The AMERICAN LA FRANCE CO. was awarded the contract at $9500 for furnishing a 135-hp. motor driven fire engine.

+Steel Doors—San Francisco, Calif.—The Board of State Harbor Commissioners has awarded a contract for the installation of rolling doors for Pier 24, to C. JORGENSEN, at $10,450.

Harbor Improvement—Toronto, Ont.—According to press reports, the Toronto Harbor Commissioners have decided to spend about $2,000,000 in harbor improvements.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Augusta, Maine—Bids have been received by T. G. O'Connell, Arch., 18 Boylston St., Boston, Mass., for the construction of a one-story, 54x127-ft. church for St. Augustine Congregation. Rev. J. B. Decory is pastor. The estimated cost is $50,000.

Biddeford Pool, Maine—T. B. Linehan, Biddeford, Maine, is receiving revised bids for the construction of a one-story church to cost $40,000. T. G. O'Connell, 18 Boylston St., Boston, Mass., is Arch.

+Brunswick, Maine—The contract for the construction of a two-story, 67x129-ft. school has been awarded to GEORGE H. WILBER & SON, Bangor, Maine. Allen & Curtis, 40 Central St., Boston, Mass., and Felix A. Burton, Brunswick, Maine, are Archs. Noted Mar. 1.

Nahant, Mass.—Bids will be received until May 20 by the School Building Committee for the construction of the Wilson High School on Nahant Rd. Samuel Hammond is Chn. of Bldg. Com. Elmer S. Bailey, 33 Cornhill St., Boston, Mass., is Arch.

New London, Conn.—The city of New London, B. F. Mahan, Mayor, City Hall, will build a three-story, 68x118-ft. almshouse to cost $40,000. James Sweeney, Arch., 140 State St., is receiving bids.

+Buffalo, N. Y.—J. HENRY MILLER, INC., Eutaw and Franklin St., Baltimore, Md., has been awarded the contract for the construction of a terminal for the Lehigh Valley R.R. Estimated cost, $600,000. Noted Jan. 28.

Harriman, N. Y.—Bids will soon be received by the Board of Education for the construction of a two-story, 50x100-ft. school. Estimated cost, $40,000. Peabody, Wilson & Brown, 389 Fifth Ave., New York, is Arch. Noted Oct. 1.

+Ithaca, N. Y.—The MATHEWS CONSTRUCTION CO., Princeton, N. J., has been awarded the contracts for unit A and D of the dormitories to be constructed at the Cornell University. The estimated cost is $350,000. Noted Aug. 6, Oct. 1 and Apr. 29.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 10:30 a.m., May 27, by the Board of Health, Department of Health, Centre and Walker St., New York, for the construction of a concrete dormitory building for females at the Riverside Hospital, North Brother Island. Noted Apr. 29, Feb. 11, under Borough of Manhattan.

New York, N. Y.—(Borough of Bronx)—Plans have been prepared by A. F. Schmitt, Arch., 604 Courtland Ave., for the construction of a church at 138th St. near St. Ann's Ave. for St. Luke's Church. The estimated cost is $100,000.

New York, N. Y.—(Borough of Brooklyn)—The Bay Ridge Theater Corporation, recently incorporated with a capital of $250,000, plans to construct a 100x175-ft. motion-picture theater on 72d St. and Third Ave.

New York, N. Y.—(Borough of Manhattan)—The Trustees of Columbia University, in conjunction with the Presbyterian Hospital, plan the construction of a medical college and hospital at Broadway, 165th to 168th St. and Ft. Washington Ave. Estimated cost is $7,500,000.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 10:30 a.m., May 20, by the Department of Public Charities, Municipal Bldg., for underpinning the foundations of the dormitory for females, at the Metropolitan Hospital, Blackwells Island. John A. Kingsbury is Comr.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until noon, May 17, by the Board of Trustees, Staff Room of Bellevue Hospital, 415 East 26th St., for completing the abandoned contract of the Tower Construction Co. The contract calls for the alterations to the power house and ambulance station of the Harlem Hospital, Lenox Ave., 136th and 137th St.

New York, N. Y.—(Borough of Manhattan)—William H. Barnum and William Everdell, Jr., plan to construct a 12-story building on Broadway between 35th and 36th St. The estimated cost is $2,000,000. Clinton & Russell, 32 Nassau St., is Arch.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by William H. Birkmire, Arch., 1133 Broadway, for the construction of a 12-story loft building at 38th St. near Eighth Ave. for the Birwin Realty Corporation, 1133 Broadway. The estimated cost is $400,000.

+New York, N. Y.—(Borough of Manhattan)—The contract for the construction of a three-story, 175x262-ft. university hall for Columbia University, 116th St. and Amsterdam Ave., has been awarded to M. REID & CO., 114 West 39th St. Noted Apr. 15.

New York, N. Y.—(Borough of Manhattan)—Bids will be received about May 15 by the Manhattan Construction Co., Marbridge Bldg., for the construction of a 12-story, 54x120-ft. store and office building at 278 Madison Ave., for Lilla B. Hyde, 437 Fifth Ave. Estimated cost, $300,000. Noted Apr. 22.

New York, N. Y.—(Borough of Queens)—Plans have been prepared by A. Wallace McCrea, for the construction of a one-story, 25x100-ft. bank building at the Queensboro Bridge Plaza, Long Island City, for the Bank of Long Island. Estimated cost, $50,000. Noted Apr. 22.

New York, N. Y.—(Borough of Richmond)—Plans have been prepared for the construction of a store and apartment building at Mariner's Harbor, S. I., for the Bradley Impovement Co.

Orchard Park, N. Y.—Plans are being prepared by Robert North, Arch., Prudential Bldg., Buffalo, for the construction of a two-story school, to cost about $50,000.

Port Chester, N. Y.—Plans are being revised by Hewitt & Bottomley, Arch., 527 Fifth Ave., New York, for the construction of a three-story high school. The estimated cost is $125,000. C. D. Camp, 394 Irving Ave., is Clk., Bd. of Education.

Scarsdale, N. Y.—The Union Free School District No. 1 plans to construct two school buildings. Estimated cost, $130,000. Thomas F. Burgess, care of General Chemical Co., 25 Broad St., New York, is Clk.

Schenectady, N. Y.—The American Locomotive Co., North Jay St., plans to construct an office building on Maxon Rd. between Nott and Peek St. The building will be used as the general offices of the company now at 30 Church St., New York. Estimated cost, $200,000. W. L. Reid is Gen. Mgr.

Syracuse, N. Y.—Bids are being received for the construction of a five-story Masonic Temple for the Syracuse Masonic Temple Association. W. F. Conough, 601 Kirk Bldg., is Pres. of Bldg. Com. The estimated cost is $200,000. Noted Feb. 4.

Hackensack, N. J.—Haenke & Sherman, Arch., 15 Broad St., New York, N. Y., has been retained to prepare plans for the construction of an addition to the Bergen County Jail at Hackensack. The Board of Chosen Freeholders of Bergen County will be in charge of the work. Charles N. Cumberland is Chn. of Bldg. Com.

Newark, N. J.—Fred Falzler & Co., 810 Broad St., Newark, at $62,874, submitted the lowest bid for the construction of an addition to the Oliver St. School. Noted Feb. 18.

Palisades Park, N. J.—Bids will be received for the construction of addition to the three-story school. Estimated cost, $95,000. W. R. Romain is Clk., Bd. of Education.

West Hoboken, N. J.—Plans have been approved by the National Building Co. of New Jersey, for the construction of a five-story building at the Hudson County Blvd. and Angelique St. The estimated cost is $65,000.

+West New York, N. J.—The Church of Our Lady Help of Christians has awarded the contract for the construction of a two-story school on Polk St. to JULIUS VROMAN, at $40,160.

Ebensburg, Penn.—Bids will be received about May 20 by the Cambria Title Savings & Trust Co., Ebensburg, for the construction of a four-story bank and office building. Estimated cost, $60,000. Hersh & Hersh, Central Trust Bldg., Altoona, is Arch.

Erie, Penn.—Bids are being received for the construction of a three-story clubhouse for the Fraternal Order of Moose. Estimated cost, $50,000. D. W. Wright is Member of Bldg. Com.

+Johnsonburg, Penn.—HYDE-MURPHY CO., Ridgway, at $44,543, has been awarded the contract for the construction of a two-story school. Clyde S. Adams, 1233 Arch St., Philadelphia, is Arch. Noted Feb. 11.

+Meadville, Penn.—The contract for the construction of the Carnegie Hall of Chemistry at the Allegheny College has been awarded to CUTHBERT BROS. & CO., Pittsburgh, at $40,253. Noted Mar. 18.

+Philadelphia, Penn.—FREUND SEIDENBACK CO., Bulletin Bldg., Philadelphia, has been awarded the contract for the construction of a one-story bank building for the State Bank of Philadelphia, 603 Chestnut St. Estimated cost, $40,000.

+Philadelphia, Penn.—The contract for the construction of a 13-story apartment house at Walnut and Moravian St. has been awarded to CRAMP & CO., Denckla Bldg., Philadelphia. Frederick Webber, Arch., 403 Morris Bldg., prepared the plans. Noted Mar. 11 and Apr. 15.

+Pittsburgh, Penn.—BOOTH & FLINN, at about $100,000, was awarded the contract for the excavation of the Frick Arcade at Fifth Ave., Grant St., Oliver Ave. and William Penn Pl. for Henry Clay Frick. The entire cost is estimated at $2,000,000. Noted Mar. 4 and Apr. 8.

Pittsburgh, Penn.—H. E. Kennedy & Co., Arch., Home Trust Bldg., is preparing plans for the construction of a two-story motion picture theater for the Nicola Land Co., Farmers' Bank Bldg. The estimated cost is $100,000.

Pottstown, Penn.—Hoffman & Co., Arch., Globe Theater Bldg., Philadelphia, is preparing plans for the construction of a three-story theater for Philip Brenneman, Pottstown. Estimated cost, $75,000.

+Baltimore, Md.—The contract for the construction of an office building for the Crown Cork & Seal Co., Guilford Ave., has been awarded to R. B. MASON, 308 West Madison St., Baltimore. Otto G. Simonson, Maryland Casualty Tower, is Arch.

Clifton Forge, Va.—Bids will be received until noon, May 17, by W. T. Oppenheimer of the Chesapeake & Ohio Ry., Room 1304, First National Bank Bldg., Richmond, for the construction of a hospital. Charles M. Robinson, 508-12 Times Despatch Bldg., Richmond, is Arch.

+Berkeley Springs, W. Va.—The contract for the construction of a four-story, fireproof hotel for the Berkeley Corporation has been awarded to JAMES H. WELLS, 1215 Filbert Bldg., Philadelphia, Penn. Estimated cost, $100,000. Noted Oct. 8.

Clarksburg, W. Va.—Plans have been prepared by C. D. Cooley Co., Arch., Century Bldg., Pittsburgh, Penn., for the construction of a three-story dormitory at the Springfield School for Girls. Estimated cost, $60,000.

Fairmont, W. Va.—J. L. Crouse, Greensboro, N. C., submitted the lowest bid for the construction of a two-story building at the State Normal School. Estimated cost, $125,000. Noted Feb. 25.

+Grafton, W. Va.—(Official)—ROCHER-BRUNER CO., 609 Johnston Bldg., Cincinnati, Ohio, at $74,622, has been awarded the contract for the construction of a high school. Other bids were: F. C. Wolf, Elyria, Ohio; King Lumber Co., Charlottesville, Va.; Potter Lumber Co., East Liverpool, Ohio; Holbert & Spedden, Fairmont, W. Va.. W. M. Watkins is Secy., Bd. of Education. Noted Apr. 22 and 29.

Salem, W. Va.—The Independent School District will hold an election May 25 to vote on the question of issuing $60,000 in bonds for the construction of a high school.

+Wheeling, W. Va.—The W. BELTZ & SONS' CO. has been awarded the contract for the construction of a building near Edgington Lane for the Carmelite Home. Fred Faris is Arch. Estimated cost, $40,000.

+Savannah, Ga.—A. A. ARTLEY, at about $52,000, was awarded the contract by the Board of Education for the construction of a two-story, 96x160-ft. school on Waters Ave.

New Orleans, La.—Plans have been prepared by S. S. Labouisse, Arch., for the construction of a 13-story building for the New Orleans Cotton Exchange. The estimated cost is between $500,000 and $750,000.

Lawrenceburg, Ky.—Joseph & Joseph, Arch., 809 Great Southern Bldg., Louisville, is preparing plans for the construction of a two-story courthouse for Anderson County. J. S. O'Dell, Judge of Fiscal Court, is Chn. Estimated cost, $60,000.

Louisville, Ky.—Arthur Loomis and Julius Hartman, Todd Bldg., are preparing plans for the construction of a four-story mercantile building on Fourth Ave. near Walnut St. This is one of a group of buildings which will be constructed at an estimated cost of $200,000.

Akron, Ohio—The Akron City Hospital plans the construction of additions and improvements to the hospital. Estimated cost, $75,000. C. B. Raymond, is Pres., Bd. of Hospital Trustees.

Barberton, Ohio—Harpster & Bliss, Arch., Nantucket Bldg., Akron, is preparing plans for the construction of a three-story high school. The estimated cost is $150,000. J. M. Hessler, 622 North Third St., Barberton, is Clk., Bd. of Education.

Bloomdale, Ohio—(Official)—At a recent election the citizens voted against the question of issuing $60,000 in bonds, the proceeds of which was to have been used for the construction of a school. Edward Brown is Clk. Noted May 6.

Cleveland, Ohio—According to press reports Charles W. Somers, Harvey Bros., and the First National Bank are interested in a project to reconstruct the Lennox Block, East Ninth St. and Euclid Ave. The estimated cost of the entire project is $3,000,000.

Cleveland, Ohio—Work will soon be started on the construction of a fireproof market house at Euclid Ave., opposite East 46th St. A. B. Smythe, Pres. of Glengariff Realty Co., Swetland Bldg., is interested. The estimated cost is $500,000. Noted Mar. 25.

Cleveland, Ohio—Bids are being received by Richardson & Yost, Arch., 354 Rockefeller Bldg., for the construction of a two-story theater on Superior Ave. for the Mall Building Co. Estimated cost, $60,000. Noted Mar. 4.

Cleveland, Ohio—Plans have been prepared by, Franz C. Warner, Arch., Hippodrome Bldg., for the construction of a four-story, fireproof dental school building, at 10,940 Euclid Ave., for the Western Reserve University, Cleveland. Noted Aug. 27 and Oct. 15.

Findlay, Ohio—The citizens of Hancock County have voted in favor of issuing $100,000 in bonds, the proceeds to be used for the construction of infirmary buildings. Noted Apr. 15.

Lancaster, Ohio—Bids will be received until noon, May 17, by H. B. Peters, Clk., Hospital Comn., for the construction of a municipal hospital. W. T. Mills, Columbus, is Arch. Noted Feb. 25.

Newark, Ohio—F. S. Gleichauf, Arch., 4729 Franklin Ave., Cleveland, has received bids for the construction of a two-story parochial school for St. Francis Church. Estimated cost, $60,000.

Niles, Ohio—Bids are being received by the National McKinley Birthplace Memorial Association for the construction of a building to cost about $500,000. Plans prepared by J. Vanderbret, Arch., Youngstown, have been approved by the association. Noted Sept. 10 and Apr. 15.

Toledo, Ohio—Bates & Gamble, Arch., is preparing plans for remodeling the Produce Exchange at Madison and St. Clair St. The estimated cost is $100,000.

Toledo, Ohio—Bids will be received until noon, May 17, by George L. McKesson, Dir. of Schools, for the construction of the Walbridge School. Edwin M. Gee, Board of Education Bldg., is Arch. Noted Mar. 18 and Apr. 15.

Toledo, Ohio—The Board of Education will authorize the sale of $1,000,000 in bonds, the proceeds to be used for the construction of additional schools.

Wilmington, Ohio—Plans are being prepared by Weber, Werner & Adkins, Arch., 1206 Mercantile Library Bldg., Cincinnati, for the construction of a three-story courthouse and jail for Clinton County. The estimated cost is $300,000. Harry Gastl, Wilmington, is Audr. Noted Mar. 4.

Woodsfield, Ohio—At a recent election the citizens voted in favor of issuing $50,000 in bonds, the proceeds to be used for the construction of a school.

Ann Arbor, Mich.—Plans have been prepared by Pond & Pond, Arch., 64 East Van Buren St., Chicago, Ill., for the construction of a four-story clubhouse and dormitory building at the University of Michigan. The estimated cost is $600,000.

Muskegon, Mich.—The Board of Education contemplates the construction of a high school. Estimated cost, $200,000. Robinson & Co., 449 Houseman Bldg., Grand Rapids, is Arch.

Port Huron, Mich.—The City Commissioners are considering the question of issuing $100,000 in bonds, the proceeds to be used for the construction of a high school.

Saginaw, Mich.—Cowles & Mutscheller, Arch., Chase Bldg., is preparing plans for the construction of a three-story lodge for the Eagles Temple. Estimated cost, $60,000. L. M. Lempke, North Franklin St., is interested.

Chicago, Ill.—The West Chicago Park Commissioners, Union Park, contemplate the construction of a two-story fieldhouse containing a gymnasium and swimming pool. Estimated cost, $150,000.

Chicago, Ill.—Plans are being prepared by Shattuck & Hussey, Arch., 19 South La Salle St., for the construction of a five-story, 43x150-ft. Y. W. C. A. building. The estimated cost is $100,000. Mrs. Thomas J. Dee, 318 South Ashland Blvd., is Pres.

Chicago, Ill.—The Chicago Hebrew Institute, 1258 West Taylor St., will construct an administration and school building, to cost about $300,000. Jacob M. Loeb is Pres.

Chicago, Ill.—Kusel & Harris, 30 North La Salle St., has purchased a site at 5746 Prairie Ave. for the construction of a theater and office building. Estimated cost, $65,000. Noted Sept. 17.

Chicago, Ill.—Thomas D. O'Hern, 4751 Champlain Ave., plans to construct an apartment house at 56th St. and Drexel Ave. The estimated cost is $75,000.

El Paso, Ill.—The Board of Education contemplates the construction of a $60,000 high school. F. B. Stitt is Pres. and Aaron T. Simmons, 401 First National Bank Bldg., Bloomington, is Arch.

+Palestine, Ill.—(Official)—H. B. KRAUEL, Danville, has been awarded the contract for the construction of a two-story high school. Estimated cost, $50,000. Hewitt & Emerson, 321 West Main St., Peoria, is Arch. Noted May 6.

Rock Island, Ill.—Bids will soon be received by the County Board of Supervision for the construction of a city and county jail. Estimated cost, $75,000. C. D. McLane, 301 Robinson Bldg., is Arch. Noted Mar. 4 and Apr. 29.

Stevens Point, Wis.—Plans are being prepared by Van Ryn & De Gelleke, 726 Caswell Blk., Milwaukee, for the construction of a three-story dormitory for women at the Stevens Point Normal School. The estimated cost is $85,000. William Kittle, Madison, is Secy., Bd. of Normal Regents. Noted Jan. 14.

Wausau, Wis.—The Wausau Hospital, recently incorporated, plans to construct a hospital. Otto C. Lemke is interested.

Ft. Dodge, Iowa—C. P. Bratnober, Waterloo, plans to construct an eight-story, 100x140-ft. building on Central Ave. between 10th and 11th St. The estimated cost is $220,000.

Hibbing, Minn.—Plans are being prepared by Halstead & Sullivan, Arch., 410 Palladio Bldg., Duluth, for the construction of a two-story, 90x120-ft. courthouse. The estimated cost is $125,000. D. D. Haley is Clk. Noted Dec. 31.

+Kenyon, Minn.—(Official)—The STANDARD CONSTRUCTION CO., Minneapolis, at $45,230, has been awarded the contract for the construction of a two-story school. J. C. E. Holmen is Clk., Bd. of Education. Noted Jan. 14 and May 6.

Milaca, Minn.—(Official)—Bids will be received about June 1 by Kirby T. Snyder, Arch., Plymouth Bldg., Minneapolis, for the construction of a high school. The estimated cost is $70,000. Noted Apr. 29.

Proctor, Minn.—Bids will soon be received for the construction of a two-story high school to cost about $50,000. Vernon J. Price & Co., 608 Palladio Bldg., Duluth, is Arch. Noted Feb. 25.

Hayti, S. D.—Plans are being prepared by Rose & Peterson, Arch., Barker Bldg., Kansas City, Kan., for the construction of a three-story courthouse and jail for Hamlin County. The estimated cost is $70,000.

Ellendale, N. D.—G. R. Horton, Arch., Jamestown, is preparing plans for the construction of a fireproof grade and high school. The estimated cost is $45,000.

Havre, Mont.—Bids will be received until May 24 by the Commissioners of Hill County for the construction of a courthouse and jail. The estimated cost is $125,000. J. H. De Vine is Clk. of Bd. and F. F. Bossout is Arch. Noted Dec. 31 and Apr. 29.

Little Rock, Ark.—Frank M. Blaisdell,, Arch., Bankers' Trust Bldg., has prepared plans for the construction of buildings at Prospect Ave. for the Little Rock College. About $100,000 will be expended this year.

Austin, Tex.—An election will be held about June 2 to vote on the question of issuing $250,000 in bonds. The proceeds will be used for the construction of public schools.

+Cleburne, Tex.—The City School Board has awarded the contract for the construction of schools at Cleburne to H. D. McCOY, at $96,672. Noted Mar. 25.

Cleveland, Tex.—The citizens have voted in favor of issuing $40,000 in bonds, the proceeds to be used for the construction of a school.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

RAILWAYS

West Virginia—Kanawha, Glen Jean & Eastern R.R.—(Official)—This company is making preliminary arrangements to start work soon on the construction of its line to the Laura, Red Star and Harvey Coal Mines. Plans have also been prepared for an extension from Tamroy to Skelton. William McKell is Pres. and V. S. Veazley, Ch. Engr., both of Glen Jean, W. Va. Noted May 6.

✚West Virginia—Norfolk & Western Ry.—(Official)—This company has awarded the contract for the construction of an extension from the Williamson & Pond Creek Ry., near Williamson, W. Va., to the Leckies Mines, to H. M. WAUGH, Williamson.

West Virginia—West Virginia Midland R.R.—According to press reports this company will convert its line from narrow to standard gage. The line extends from Webster Springs to Holly Junction, about 30 miles. Clyde Lewis, Grafton, W. Va., is Ch. Engr.

North Carolina—Georgetown & Western Ry.—The railway owned by this company has been purchased by the Carolina, Atlantic & Western Ry. Co. The new owner contemplates several extensions to the line, including one from Poston to Conway and one from Poston to Timmonsville. William Moncure, Hamlet, N. C., is Ch. Engr. of the Carolina, Atlantic & Western Ry.

✚Kansas—Salina Northern Ry.—This company has awarded a contract to the KEYSTONE CONSTRUCTION CO., Salina, for the construction of its proposed line from Salina to Osborne, Kan., about 80 miles. Noted Jan. 7 and Apr. 29.

Arkansas—Missouri & North Arkansas R.R.—Plans are being prepared by this company for an expenditure of $400,000 for the improvement of its lines near Harrison, Ark. E. M. Wise, Harrison, is Gen. Mgr.

✚Texas—Glen Rose & Walnut Springs Ry.—(Official)—This company has awarded the contract for the completion of its railway from Glen Rose to Walnut Springs, from Glen Rose to Ft. Worth and from Walnut Springs to Eagle Pass, about 340 miles, to the RAILROAD CONSTRUCTION CO., 80 Fifth Ave., New York, N. Y. Noted under Electric Railways May 13.

Texas—Red River & Gulf Ry.—This company has been incorporated to construct a railway from the ore mines in Marion County north to the Red River southeast of Hugh, Okla., about 75 miles. The incorporators are: T. C. Morgan, G. A. Bodenheim, R. N. Kelly, C. F. Miles, J, C. Turner, L. L. Featherstone and L. P. Featherstone, all of Longview, Tex.; Joseph A. Bradford and R. N. Taylor, Daingerfield, and W. D. Myers, Houston, Tex.

Texas—Roby — Northern R.R—This company has been incorporated to construct a railway from Roby, Tex., to connect with the Texas Central at North Roby, about five miles. C. L. White, Hillsboro, is Pres., L. C. Eastland, Hillsboro, Vice-Pres., and J. C. McWhirter, Roby, Secy.

Texas—Texas State R.R.—The Legislature has passed a bill granting permission to this company to extend its line from Palestine to Corsicana and Dallas, Tex., about 90 miles. Charles Hurdleston, Rusk, Tex., is Mgr.

Washington—Surveys are being made by the Doty Lumber & Shingle Co. for the construction of a five-mile extension to its railway from Doty, Wash. W. D. Bunker, Doty, is interested.

✚Washington—The Hercules Sandstone Co. has awarded the contract for the construction of a seven-mile standard gage railway from Tenino, Wash., to the quarries of the company, to DIBBLE & HAWTHORNE, Tenino, Wash.

✚California—San Diego & Arizona Ry.—ROBERT SHERER & CO., Pacific Electric Bldg., Los Angeles, has been awarded the contract for grading about five miles of this company's line near San Diego, Calif. The work will be of heavy character, involving deep cuts through decomposed granite and rock. The estimated cost is $500,000.

Alberta—Entwistle & Alberta Southern Ry.—This company has been incorporated to construct a railway from Entwistle, Alta., to the Saskatchewan River, about 60 miles. The incorporators include: C. L. Hervey, D. A. O' Meara, Montreal, Que.; T. A. Burgess, L. A. Cote and R. H. Pringle, Ottawa, Ont. Noted Mar. 18.

ELECTRIC RAILWAYS

Brockton, Mass.—The Bay State St. Ry. Co. contemplates the extension of its line in Brockton from Perkins Ave. to East St. J. T. Conway, Brockton, is Gen. Supt.

Providence, R. I.—Plans are being considered by the Newport & Providence Ry. Co. for the extension of its line to Coaster's Harbor Island. G. M. Towle, Newport, is Supt. and Gen. Mgr.

New Haven, Conn.—The Connecticut Co. has applied for a franchise to double-track its line on George St. from Norton to Broad St. F. P. Harlan is Mgr. of New Haven Division.

West Hartford, Conn.—The Connecticut Co. contemplates double-tracking its line in West Hartford on Farmington Ave. from the end of the present loop near Troop B Armory to West Hartford Center. W. P. Bristol, Hartford, is Local Mgr.

Albany, N. Y.—The United Traction Co. plans to retrack its line on South Pearl St. James F. Hamilton, Albany, is Gen. Mgr.

Buffalo, N. Y.—The International Ry. Co. plans to construct an extension to its line which will be known as the Abbott Rd. line. The new line will extend from Pearl to Erie St. and Abbott Rd. and Woodside Ave. in Buffalo. G. C. Chambers is Gen. Agt.

★New York, N. Y.—(Borough of Queens)—(Official)—Bids are being received by the New York Connecting R.R. Co. for the grading and masonry of a portion of Section 2 of its proposed line, extending from a point near Bowery Bay Rd. to the south side of Fremont St., in the Borough of Queens, about 4.21 miles. Plans, specifications, form of contract, proposal blanks and instructions to bidders may be had by addressing A. C. Shand, Ch. Engr., Southern Division, The New York Connecting R.R. Co., Broad St. Station, Philadelphia, Penn.

Johnstown, Penn.—According to press reports the Somerset St. Ry. Co. is making surveys for the construction of an extension from Johnstown to Rockwood, about 36 miles. G. C. Winslow is Gen. Mgr.

Phoenixville, Penn.—The Chester & Lancaster Ry. Co. is making surveys for the construction of an electric railway from the Lancaster County line to Phoenixville, about 16 miles. The company also plans to construct a line from Pughstown to Pottstown, about eight miles. John F. Shea and John J. Deery, Philadelphia, are interested.

Durham, N. C.—The Durham Traction Co. will soon award contracts for the extension of its line on Holloway St. for a distance of two miles. R. L. Lindsay, Durham, is Gen. Mgr. and Pur. Agt. Noted Apr. 29.

Furman, S. C.—The Furman & Yemassee R.R. Co. has been incorporated to construct an interurban railway from Furman to Yemassee, about 20 miles. The incorporators are J. H. Adams, W. B. Ellis and H. Weindal.

Jacksonville, Fla.—The Jacksonville & Florida Ry. Co. has been incorporated to construct an electric railway from Jacksonville to Providence, about 60 miles. A. W. Mackinlay is Pres. and Gen. Mgr.

Lynn Haven, Fla.—Richard Tillis, Montgomery, Ala., is interested in the construction of an electric railway from Lynn Haven to Panama City.

Oakwood, Ohio—The Oakwood St. Ry. Co. has been granted a franchise by the City Council for the construction of an electric railway in Oakwood. Noted Apr. 29.

Springfield, Ohio—Plans are being prepared by the Springfield Ry. Co. for the extension of several of its lines in Springfield. George C. Towle, Dayton, is Gen. Mgr.

Springfield, Ohio—The City Council has granted a franchise to the Ohio Electric Ry. Co. to construct an electric railway in Springfield. A. Benham, Springfield, is Gen. Mgr.

Ft. Wayne, Ind.—The Ft. Wayne & Northern Indiana Traction Co. has applied to the City Council for a franchise to extend its line on State St. Samuel W. Greenland, Ft. Wayne, is Gen. Mgr. and Pur. Agt.

Wheaton, Ill.—Plans are being prepared by the Aurora, Elgin & Chicago Ry. Co. for double-tracking its line on North Lake St. in Wheaton. Edwin C. Faber, Wheaton, is Vice-Pres. and Gen. Mgr.

Marinette, Wis.—The Marinette & Menominee Light & Traction Co. is considering the extension of its line in Marienette from Pierce Ave. to 11th St. A. W. Raichie, Menominee, Mich., is Pur. Agt.

Price, Utah—J. H. Manson, Price, is interested in the construction of an electric railway to connect Price with various towns in Emery County.

Los Angeles, Calif.—The City Council has granted a franchise to Lewis Ginger for the construction of an incline railway in Griffith Park.

Los Angeles, Calif.—The City Council has authorized the sale of two franchises in Los Angeles; one for the construction of an electric railway to extend from 13th St. and San Pedro St., out San Pedro St. and South Park Ave. to Slauson Ave., and the other to extend over the same line to Manchester Ave.

Sacramento, Calif.—The Pacific Gas & Electric Co. will reconstruct its tracks on J and P St. and Cypress Ave. ,at a cost of about $75,000. C. W. McKillip is Local Mgr.

Ottawa, Ont.—Preliminary arrangements are being made by the Ottawa Electric Ry. Co. for laying new tracks on Banks St. The estimated cost of the improvement is $40,000. W. H. Baldwin, Ottawa, is Ch. Engr.

LIGHT, HEAT AND POWER

Boston, Mass.—Bids will be received until June 1 by the Children's Institution Department for furnishing a 15-kw. direct-connected engine and electric generator at Rainsford Island. John O'Hare is Comr.

Cambridge, Mass.—The Cambridge Electric Light Co. has applied to the Board of Gas and Electric Light Commissioners for authority to issue $100,000 in additional capital stock, of which a part of the proceeds will be used to enlarge and improve the plant. W. E. Holmes, Newton, is Treas. and Gen. Mgr.

Sterling, Mass.—At a recent town meeting, an appropriation of $5900 was made for extending the transmission lines of the municipal electric-light plant as follows: Camp grounds at Sterling Junction, $2600; Rowley Hill district, $2000, and to the Chocksett district, $1300. H. W. Rugg is Mgr. and Supt.

Buffalo, N. Y.—(Official)—Bids will be received until 4 p.m., May 25, by the State Board of Armory Commissioners, Capitol, Albany, for gasoline engine-driven electric generating sets for Troop I Armory, Buffalo. Franklin W. Ward is Secy., State Armory Comn.

✚New York, N. Y.—(Borough of Brooklyn)—The Department of Education opened bids May 10 for installing heating and ventilating apparatus in Public School 18, Maujer and Leonard St., Borough of Brooklyn, from: E. Rutzler Co., $24,632; Leslie & Tracy, $24,400; Grimshaw & Star, $24,444; William J. Olvany, $25,210; JAMES CURRAN MFG. CO., 512 West 36th St., New York (awarded contract); Raisler Heating Co., $25,749.

Camden, N. J.—It is reported that the Public Service Electric Co. will soon begin laying underground conduit lines in the principal streets of the city. About $25,000 will be spent this year for this improvement.

Harrison, N. J.—Press reports state that the Crucible Steel Co. of America will build a new power station on Cumberland St. in connection with extensions to its plant. The company also plans to establish a new substation.

Hightstown, N. J.—It is reported that Bert D. Thomas, Mayor, will soon submit a report to the City Council on the feasibility of installing a municipal electric-lighting system.

Jersey City, N. J.—The Hudson Ice Co., 130 Oakland Ave., contemplates the construction of a 100-ton ice plant at Central and Jefferson Ave., Jersey City. S. H. McKnight is Pres.

Millville, N. J.—The Council has engaged W. S. Temple, Philadelphia, Penn., to prepare plans for the construction of a municipal electric-light plant for Millville.

Patton, Penn.—It is reported that the Town Council is considering the installation of a municipal electric-light plant. Service is now furnished by the Penn Central Light & Power Co., Altoona.

Asheville, N. C.—According to press reports, the North Carolina Electrical Power Co., Asheville, plans to build a steam-driven auxiliary electric plant on the French Broad River, estimated to cost about $150,000. Generating equipment for 4000 hp. will be installed this year. W. T. Weaver, Asheville, is Pres. and Mgr.

Ft. Meade, Fla.—(Official)—Bids will be received until June 15 by the Board of Bond Trustees, City Hall, for the purchase of $25,500 in bonds, the proceeds of which will be used for the purchase or construction of a municipal electric-light plant. G. L. Brodrick is Town Clk.

Chalmers, Ind.—At a recent election, the citizens voted in favor of installing an electric-lighting system. It is reported that the plant will be financed by a stock company, to be purchased eventually by the town. T. C. Smith, Chalmers, is Engr.

Columbus, Ind.—The Board of Commissioners of Bartholemew County plans to install a new steam-heating plant in the County Courthouse at Columbus. The estimated cost is $15,000.

Normal, Ill.—(Official)—Bids will be received until 1 p.m., May 24, by the State Board of Education for the construction of a boiler house and stack for the heating plant of the State Normal University at Normal. James B. Dibelka, 130 North Fifth Ave., Chicago, is State Arch.

Springfield, Ill.—It is reported that the House of Representatives has passed a bill appropriating $140,000 for the purpose of installing new lighting and heating equipment in the State Capitol building.

Primghar, Iowa—(Official)—Bids will be received until noon, June 15, by the Board of Supervisors of O'Brien County for heating and plumbing systems for the new county court house at Primghar. J. B. Stamp is County Audr.

Shellsburg, Iowa—The City Council is considering the establishment of a municipal electric-light plant. The estimated cost is $10,000. It is reported that the Cass Interurban Co. has made an offer to furnish electricity to Shellsburg from its power station at Urbana.

Vinton, Iowa—Bids will be received until May 27 by the Board of Supervisors of Benton County for the construction of a new building at the County Home. Separate contracts will be awarded for heating and plumbing equipment and for electric-light wiring. J. G. Ralston, Waterloo, is Arch.

✚Wellman, Iowa—The Wellman Light & Power Co. has awarded the contract for the construction of a power plant to the ELECTRIC CONSTRUCTION & MACHINERY CO., Third Ave., Rock Island, Ill. B. N. Jessen is interested in the Wellman company.

Marietta, Minn.—The town is considering the installation of a municipal electric-light plant.

Russell, Minn.—The City Council has appropriated $7000 for the installation of a municipal electric-light and power plant.

Ceresco, Neb.—Bids will be received until 2 p.m., May 24, by Gus Johnson, Village Clk., for the installation of an electric-light plant. Noted Apr. 1 and May 13.

✚Valentine, Neb.—Press reports state that the C. H. Cornell Hydro-Electric Co. has awarded the contract for the construction of a hydro-electric plant to the STEINMEYER-RYONS CONSTRUCTION CO., Beatrice.

Dallas, Tex.—The Lone Star Gas Co., Ft. Worth, will soon begin laying a natural gas main pipe-line from its fields at Petrolia, Tex. The estimated cost of the work is $500,000.

Del Rio, Tex.—The Texas Southern Electric Co., Victoria, has purchased the electric-light and ice factory of the City Ice & Electric Co. The reported purchase price is $90,000. The property will be improved.

McGregor, Tex.—The Texas Power & Light Co., Dallas, has purchased the local electric-light plant, and will build a transmission line from Waco by way of Eddy and Moody. Some improvements will be made to the system in McGregor.

Reno, Nev.—It is reported that the City Council is co sidering a bond issue of $750,000 for the purpose of co structing a municipal electric-light plant and water-wo system. J. C. Parry is City Clk.

Morton, Wash.—The plant of the Morton Electric C owned by F. M. Broadbent, has recently been sold to C. Smith, Pe Ell, Wash. The reported price is approximat $20,000. The new owner plans to enlarge and improve t plant at once.

Dinuba, Calif.—The Alta District Gas Co. plans to insta new equipment at once, and to extend its lines to neighborin towns. R. K. Madsen is Pres. and Gen. Mgr.

Quebec, Que.—It is reported that the Canadian Pacific R contemplates the construction of a central-power station a St. Paul and Henderson St., Quebec. The estimated cost i $1,000,000. Bids will be asked for the construction of th building, installation of boilers and other equipment. H. E Prindle, 915 New Birke Bldg., Montreal, is Arch.

Sherbrooke, Que.—It is reported that the city of Sherbrooke will purchase electric meters, controllers, etc., to the amount of about $27,000. No bids will be asked. W. E. C. Gatien is City Clk.

Listowel, Ont.—Construction will soon be started on a new municipal hydro-electric plant. A distribution and street-lighting system will also be installed. The total cost is estimated at $40,000. H. R. Stafford is Supt. of the Light Comn.

Niagara Falls, Ont.—It is reported that the Canadian Niagara Power Co. contemplates extensive improvements to its plant. Philip P. Barton, Niagara Falls, is Gen. Mgr. Noted Mar. 18.

Winnipeg, Man.—Bids will be received until 10 a.m., June 5, by M. Peterson, Secy., Bd. of Control, for one 150-kw. motor generator and exciter set to be installed in the generating station at Point du Bois. Plans are on file at the City Light and Power Department, 54 King St., Winnipeg.

BRIDGES

Boston, Mass.—The Spring St. Bridge connecting Dedham with this city is to be rebuilt and widened. The estimated cost is $30,000. Patrick O'Hearn is Acting Comr. of Pub. Wks.

Lawrence, Mass.—The Commissioners of Essex County opened bids on May 10 for the construction of a bridge over the Shawsheen River at Merrimac St. from: W. N. Pike & Son, $21,621; Bruno & Petitti, $26,500; George M. Bryne, $29,003; George T. Rendle & Co. and James B. Rendle, $32,490; Coleman Bros., $35,647. Moody Kimball, Salem, is Chn. of Comrs. Noted May 6.

✚★Central Falls, R. I.—The joint commission of the City Council of Central Falls, and the Town Council of Cumberland has awarded the contract for the construction of a reinforced-concrete arch over the Blackstone River to the McKINNON CONSTRUCTION CO., East Providence, at approximately $59,000. Noted June 18 and 25, Oct. 1, 1914; Jan. 21 and Feb. 18.

★✚Canton,, N. Y.—(Official)—Bids were received May 5 for the construction of a concrete-steel arch over the Grasse River in the Town of Canton from the following: FLOOD & VAN WIRT CO., Hudson Falls, $25,500 (awarded contract); Lou B. Cleaveland, $28,406; E. T. Eggleston, $24,719 (irregular); Scott Bros., $32,400; I. B. Contracting Corporation, $25,526; Interstate Construction Co., $36,189. Noted Apr. 15 and May 13.

Jay, N. Y.—Bids will be received until May 22 by Fred A. Torrance, Town Supt., for the construction of a 125-ft. steel bridge over the Ausable River at Upper Jay.

✚Syracuse, N. Y.—The Board of Contract and Supply has awarded the contract for the construction of the Spencer St. bridge to the C. T. HOOKWAY CONSTRUCTION CO., at $11,400.

Watertown, N. Y.—It is reported that the Board of Public Works is considering the construction of two bridges to cost $25,000 and $82,500. The Concrete-Steel Engineering Co., Park Row Bldg., New York, has submitted plans. Earl W. Sayles is City Engr.

Freehold, N. J.—(Official)—Bids will be received until 11 a.m., May 27, by the Board of Chosen Freeholders of Monmouth County for the construction of a wooden bridge in Ocean Township, known as the "Manahasset Bridge." George D. Cooper, 60 Broad St., Red Bank, is County Engr. J. M. Corlies is Dir. Bd. of Freeholders.

Keyport, N. J.—(Official)—We are advised by C. E. Close, Clk. of the Bd. of Chosen Freeholders of Monmouth County, that plans and specifications for a new drawbridge over Matawan Creek near Keyport are now being prepared, but no definite time for receiving bids has been set. Noted May 13.

★New Gretna, N. J.—(Official)—Bids will be received until noon, June 9, by the Boards of Chosen Freeholders of Atlantic and Burlington Counties at G. A. R. Hall, Atlantic City, for the construction of a bridge over the Mullica River at Chestnut Neck near New Gretna. It will be 742 ft. long, composed of creosoted pile trestle approaches, steel trusses and bascule draw span, with wood block floor. A. H. Nelson, Guarantee Trust Bldg., Atlantic City, is Engr. of Atlantic County. James Loganis Engr. of Burlington County.

★New Gretna, N. J.—(Official)—Bids will be received until noon, June 9, by the Boards of Chosen Freeholders of Atlantic and Burlington Counties at G. A. R. Hall, Atlantic City, for repairing the substructure of the Mullica River Bridge at Chestnut Neck near New Grena. John K. Johnson is Chn. Alantic County Bridge Com. John R. Loveland is Chn. Burlington County Bridge Com.

Beaver, Penn.—Press reports state that the Commissioners of Beaver County are receiving bids for the construction of a reinforced-concrete bridge over Block House Run in Pulaski Township.

Charleroi, Penn.—It is reported that the Mercantile Bridge Co. will spend about $35,000 in repairing the Monessen-Charleroi Bridge within the next few weeks. D. G. Callihan will have charge of the work.

Mont Clare, Penn.—The Commissioners of Montgomery County, Norristown, and Chester County, West Chester, plan to replace the inter-county bridge over the Schuylkill River between Mont Clare and Phœnixville, and which was totally destroyed by fire on May 9, as soon as possible with a larger structure. The estimated cost is $80,000, of which each county will pay half .

✚Reading, Penn.—(Official)—The Board of Commissioners of Berks County has awarded the contract for the construction of the Leesport Bridge over the Schuylkill River to WHITAKER & DIEHL, Harrisburg at $17,747. Other bidders were: Reading Contracting Co., $17,500; Rennell Construction Co., $17,587; N. R. Porterfield, $19,220; L. H. Focht & Son, $18,998; Carl R. Camp, $21,800. D. K. Hoch is County Controller. Noted Dec. 17, Jan. 7, Feb. 25 and May 6.

Sunbury, Penn.—It is reported that the proposed new bridge over Shamokin Creek in Sunbury will be located at 10th St. The estimated cost of the structure is $14,000. George F. Keefer is City Engr.

York, Penn.—The Board of Commissioners of York County has decided to replace the present wooden bridge over Red Run on the York-Shippensburg Rd. in Washington Township with a steel structure. Bids will soon be asked for. F. S. Bartenschlager is County Controller.

✚York, Penn.—(Official) — The Commissioners of York County have awarded contracts for the construction of five county bridges to the following: G. A. and F. M. WAGMAN, Dallastown, at $694 and $3699 respectively, for Bridges Nos. 1 and 5; S. A. ARNOLD, Windsor, at $2012 for Bridge No. 2; NESS BROS., Dallastown, $900 for Bridge No. 3; WALTER DRAWBAUGH, Dover, Del., $2250 for Bridge No. 4. Noted May 6.

Georgetown, Del.—Bids will be received until June 1 by Morgan T. Gum, County Road Engr. of Sussex County, for the construction of a bridge over Marshy Hope Creek. The estimated cost is $5000.

Christiansburg, Va.—(Official)—Bids will be received until noon, May 25, by the Clerk of the Circuit Court of Montgomery County for the construction of a steel bridge over Toms Creek. Bids will be received at the same time for about 2291 cu.yd. approach fill. G. P. Coleman, Richmond, is State Highway Comr.

✚Elkins, W. Va.—The Board of Commissioners of Randolph County has awarded the contract for the construction of six reinforced-concrete bridges to the LUTEN BRIDGE CO., Clarksburg, W. Va., at $7400; the contract for the construction of the Stone House Bridge was awarded to the FARRIS BRIDGE CO., Pittsburgh, Penn., at $6430. Noted Jan. 28, Mar. 25 and Apr. 29.

Fairmont, W. Va.—It is reported that the City Council is considering the construction of two bridges, one, a 388-ft. span over Coal Run, and the other, about 1450 ft. long, over the Monongahela River. The estimated cost is $400,000. S. M. Miller is City Engr.

Lacombe, La.—Bids will be received until June 7 by the Board of State Highway Commissioners, New Orleans, for the construction of a steel swing bridge over Bayou Lacombe near Lacombe, St. Tammany Parish. The bridge will be 150 ft. long and 16 ft. wide. The estimated cost is $7000. C. C. Sandoz is Secy. State Highway Comrs.

Henderson, Ky.—(Official)—Bids will be received until 10 a.m., May 25, by S. A. Young, County Judge, for the construction of 11 reinforced-concrete bridges and one concrete culvert in Henderson County. S. H. Kimmel, Henderson, is County Road Engr. Noted Apr. 22.

✚Alliance, Ohio—(Official)—The Board of Commissioners of Stark County, Canton, has awarded the contract for an extension to the Ryan Run Culvert in Lexington Township, to FRANK L. COX, Kensington, Ohio. Noted Apr. 29.

Cambridge, Ohio—It is reported that the County Engineer is preparing plans for three new concrete bridges, bids for which will probably be asked about July 1. T. C. White is Audr. of Guernsey County.

Chesapeake, Ohio—(Official)—Bids will be received until 10 a.m., June 7, by the Commissioners of Lawrence County, Ironton, for the construction of a floor in the bridge over Symmes Creek at Chesapeake. S. A. Bowman is County Audr.

Cincinnati, Ohio—(Official)—Bids will be received until noon, June 1, by Philip Fosdick, Dir. of Pub. Ser., for the construction of a bridge over Kemper Lane at the Park Ave. entrance to Eden Park. It will be 360 ft. long and 65 ft. wide, consisting of one 180-ft. three-ribbed arch and approaches. The work includes 26,000 cu.yd. grading, 9000 cu.yd. trench excavation, 6800 cu.yd. reinforced concrete, 9000 sq.yd. bituminous macadam paving, 1600 sq.yd. wood block pavement and miscellaneous street work. The estimated cost is $165,000. Frank L. Raschig is Prin. Asst. Engr. in charge of Div. of Structures. Noted Nov. 26 and Dec. 10, 1914; Feb. 11 and Mar. 25.

Cincinnati, Ohio—(Official)—Bids will be received until noon, June 11, by the Board of Commissioners of Hamilton County for widening the road and constructing a concrete culvert on Three-Mile Rd. in Anderson Township, Specification No. 774. Fred E. Wesselman is Pres. of the Bd.

Hamilton, Ohio—(Official)—Bids will be received until 10 a.m., June 9, by W. W. Crawford, Audr. of Butler County, for the construction of a steel or concrete bridge over the Miami River at the intersection of Wood and Chestnut St., Hamilton.

Lorain, Ohio—(Official)—Bids will be received until 1 p.m., June 2, by the Board of Commissioners of Lorain County for the construction of the substructure of the Cowle-Miller Bridge on the Pitts Rd. in Wellington Township. F. P. Crosse is County Surv. F. L. Ellenberger is County Surv.

✚Struthers, Ohio—(Official)—The Board of Commissioners of Mahoning County, Youngstown, has awarded the contract for a 70-ft. reinforced-concrete bridge across Yellow Creek at Struthers, to HARVEY & WATSON, Pittsburgh, Penn., at $4351. Noted Apr. 29.

Zanesville, Ohio—(Official)—Bids will be received until 11 a.m., June 7, by the Board of Commissioners of Muskingum County for the superstructure of the Meadow Farm Bridge over Thompson's Creek in Springfield Township. Fred C. Werner is Clk. of Comrs.

✚Conrad, Ind.—The Board of Commissioners of Newton County has awarded the contracts for a bridge at Conrad to G. A. WEBBER, Morocco, at $3400 for concrete abutments, and the ELKHART BRIDGE CO., at $2197, for the superstructure.

Sullivan, Ind.—The Board of Commissioners of Sullivan County will advertise for bids early in June for the construction of five or six reinforced-concrete bridges with concrete floors. W. S. Bicknell is County Audr.

Grand Haven, Mich.—(Official)—Bids will be received until noon, May 28, by the Board of County Road Commissioners of Ottawa County for the construction of a bridge over the Grand River at Eastmanville. It will consist of five 85-ft. pony trusses, one movable truss, two reinforced-concrete abutments and five plain concrete piers. Austin Harrington is Chn. of Rd. Comrs. Jacob Glerum is County Clk.

✚Jackson, Mich.—The City Commissioners have awarded the contract for the construction of a reinforced-concrete bridge at Mechanic St. to NORTH & BRADSHAW, Jackson, at $4300. Bids were opened Apr. 27. Noted Mar. 4, Apr. 1 and 15.

Pontiac, Mich.—Bids will soon be received by C. L. Groesbeck, City Clk., for the construction of two reinforced-concrete bridges.

★Chicago, Ill.—(Official)—Bids will be received until noon, June 1, by the Union Station Co., 521 West Adams St., for the construction of a trunnion bascule bridge over the south branch of the Chicago River at West Monroe St. The work includes the substructure, superstructure and the electrical equipment for the bridge. Thomas Rodd is Ch. Engr. of the Union Station Co.

Dixon, Ill.—(Official)—We are advised by M. Johnson, Engr. of Bridges and Bldgs. for the Illinois Central R.R., that, while a new bridge over the Rock River at Dixon is under consideration, no definite plans have been decided upon as yet. Noted May 6.

✚Council Bluffs, Iowa—The Board of Supervisors of Pottawattomie County has awarded the contract for the construction of five bridges to the LANA CONSTRUCTION CO., Council Bluffs, at $18,917. Bids were received May 7. Noted May 6.

✚Forest City, Iowa—(Official)—The Board of Supervisors of Winnebago County has awarded the contract for the construction of two reinforced-concrete bridges to the IOWA BRIDGE CO., Des Moines, at $4350. The Engineer's estimate was $6288. Noted May 6.

Mt. Pleasant, Iowa—The Board of Supervisors of Henry County has authorized the immediate construction of 42 concrete bridges in the county.

✚Oskaloosa, Iowa—The Board of Supervisors of Mahaska County has awarded the contract for the construction of 41 steel and concrete bridges in the county to H. E. WHITLATCH, Beacon, and W. F. ORR, Lacey, at $20,500. The county will furnish all concrete and structural steel for I-beam bridges. Noted Apr. 1.

West Union, Iowa—Bids will be received until 1 p.m., May 27, by the Board of Supervisors of Fayette County for the construction of five county bridges. C. F. Chambers is County Audr.

✚Leavenworth, Kan.—(Official)—The City Council has awarded the contract for the construction of two culverts over Three-Mile Creek at Second and Third St. to the LEAVENWORTH BRIDGE CO., Leavenworth, at a cost not to exceed $25,500. Other bidders were; Missouri Valley Bridge Co., Leavenworth, $28,418; C. B. S. Construction Co., Kansas City, Mo., $28,159. Harry A. Perkins is City Engr. Noted May 6.

✚Marysville, Kan.—(Official)—The Board of Commissioners of Marshall County has awarded the contract for the construction of four county bridges to the TOPEKA BRIDGE & IRON CO., Topeka, at $10,700. Ralph Gallup is County Engr. Noted Apr. 29.

✚Beatrice, Neb.—(Official)—The Board of Supervisors of Gage County has awarded the contract for the construction and repair of all county bridges during the year to the STANDARD BRIDGE CO., City National Bank Bldg., Omaha. Noted Apr. 29.

✚Neligh, Neb.—The Board of Commissioners of Antelope County has awarded the contract for the construction of all county bridges for the year to the WESTERN BRIDGE & CONSTRUCTION CO., Omaha.

Roundup, Mont.—Press reports state that the Commissioners of Musselshell County will soon ask bids for the construction of a bridge across the Musselshell River.

✚Houston, Tex.—It is reported that the City Council has awarded the contract for the construction of a reinforced-concrete bridge across Harris Bayou on Main St. Blvd. to the EUREKA PAVING CO., Carter Bldg., Houston, at about $13,000.

St. Jo, Tex.—Bids will be received until June 7 by the City Council for the construction of a steel or concrete bridge across Elm Creek on Williams St. D. C. Berry is Chn. Street Com.

✚Watonga, Okla.—(Official)—The Commissioners of Blaine County have awarded the contract for the construction of a steel bridge in Lawton Township to the OREGONIA BRIDGE CO., Lebanon, Ohio, and Oklahoma. Noted Apr. 29.

Challis, Idaho—The State Highway Commission has agreed to appropriate $6000 for the construction of bridges on North and South Rd., providing that Custer County, at the election to be held May 29, votes in favor of issuing $35,000 in bonds to be used for the same purpose. Edward S. Smith, Boise, is State Highway Engr.

Grand View, Idaho—It is reported that the Commissioners of Ada County, Boise, and Owyhee County, Silver City, contemplate the constructionof a bridge across the Snake River at Grand View. The estimated cost is $20,000.

✚**Sandpoint, Idaho**—It is reported that the Commissioners of Bonner County have awarded the contract for a bridge across Meadow Creek to C. PETERSON at an estimated cost of $17,000.

Montesano, Wash.—Bids will be received until 1:30 p.m., May 24, by W. D. Campbell, Audr. of Chehalis County, for building three highway bridges over the Whishkah River. Noted Feb. 4.

✚**Olympia, Wash.**—The Commissioners of Thurston County have awarded the contract for a steel bridge over Perry Creek on the Olympia-Shelton Rd. to the COAST BRIDGE CO., Portland, Ore., at $8400. Noted Mar. 18 and Apr. 15.

Olympia, Wash.—It is reported that the State Highway Commission has completed plans for the La Salle Bridge near Olympia, and bids will soon be asked. It will be a steel structure, and the estimated cost is $20,000. William R. Roy. Olympia, is State Highway Comr.

Seattle, Wash.—Official)—We are advised by W. H. Tiedeman, Prin. Asst. City Engr., that the reconstruction of the West Garfield St. Bridge has not yet been ordered by the City Council. The work contemplated includes re-piling with creosoted piles, repairing bracing, etc., at an estimated cost of $20,000. Noted May 6.

✚**South Prairie, Wash.**—(Official)—The Board of Commissioners of Pierce County, Tacoma, has awarded the contract for the construction of the South Prairie Creek Bridge to the OMAHA STRUCTURAL STEEL WORKS, 605 Bankers' Trust Bldg., Tacoma. Noted Apr. 8 and 22.

Spokane, Wash.—(Official)—We are advised by Morton Macartney, City Engr., that it will be about 60 days before any definite plans can be given out for constructing a reinforced-concrete approach at the south end of the Monroe St. Bridge. Noted Apr. 29.

Tumwater, Wash.—It is reported that bids will be received until May 31 by the Commissioners of Thurston County, Olympia, for the construction of a concrete bridge across the Des Chutes River on the Pacific Highway near Tumwater. The estimated cost is $10,000. Noted Mar. 4.

Portland, Ore.—All bids received May 3 by the Commissioners of Multnomah County for the construction of a reinforced-concrete viaduct on the Columbia Highway near Eagle Creek were rejected. The work will be readvertised. Plans were prepared by the State Highway Commission. Noted Apr. 29.

✚**Auburn, Calif.**—(Official)—The Board of Supervisors of Placer County has awarded the contract for the construction of a reinforced-concrete bridge over the Bear River on the State Highway near Sheridan to JENKINS & WELLS, Sacramento, at $13,800, exclusive of the cement used. About 12 other bids were received. M. Z. Lowell is County Clk. Noted Apr. 29.

Sacramento, Calif.—Bids will be received until 2 p.m., May 24, by the State Highway Commission for the construction of an 80-ft. plate girder bascule bridge with reinforced-concrete approaches near the easterly side of the Yolo bypass in Yolo County. A. B. Fletcher is State Engr.

✚**Sacramento, Calif.**—(Official)—The Boards of Supervisors of Sacramento and Solano Counties have awarded the contract for the construction of a road trestle on Wood Island to M. L. ISHAM, Rio Vista, at 25.5c. per lin.ft. Noted Apr. 29.

Santa Barbara, Calif.—It is reported that the Board of Supervisors of Santa Barbara County will shortly advertise for bids for two reinforced-concrete bridges on the State Highway at Dos Pueblos and Eagle Cañon. The estimated cost is from $8000 to $12,000. Owen H. O'Neill is County Surv.

Santa Cruz, Calif.—Bids will be received until May 26 by the Board of Supervisors of Santa Cruz County for the construction of bridges in the San Lorenzo Road District. A. H. Miller is Clk. of the Bd.

Watsonville, Calif.—(Official)—Bids will be received until 2 p.m., May 24, by the County Clerk of Monterey County, Salinas, and the City Clerk, Watsonville, for the construction of a reinforced-concrete bridge with a 20-ft. approach at each end, across the Pajaro River at Watsonville. The estimated cost is $34,250. Leonard & Day, Rialto Bldg., San Francisco, is Consult. Engr. H. B. Kitchen is City Engr. of Watsonville. Noted Apr. 8.

✚**Portneuf, Que.**—The contract for the construction of a reinforced-concrete bridge has been awarded to ARTHUR GAUTHIER, Portneuf, at about $4500.

Chippawa, Ont.—Bids will be received until noon, May 25, by J. A. Plylev, Township Clk., Chippawa, for the construction of three bridges in Willoughby Township.

✚**Kingston, Ont.**—(Official)—The Department of Public Works, Ottawa, has awarded the contract for the construction of three bridges over the Cataraqui River at Kingston, to the HAMILTON BRIDGE WORKS CO., LTD., Hamilton. Two of the bridges are steel through-truss spans, while the third is a single-leaf Strauss trunnion bascule bridge. Noted Mar. 11.

Swan River, Man.—Bids will be received until May 26 by Joseph Armstrong, Secy. and Treas., Box 153, Swan River, for the construction of two steel bridges, the Clarke Bridge over the Roaring River, and the Corbett Bridge over the Swan River.

WATER SUPPLY—IRRIGATION

Belchertown, Mass.—James L. Tighe, Hydraulic Engr., Holyoke, has submitted estimates to the Water Committee for the construction of either a gravity water system at an estimated cost of $36,779, or a pumping system at $76,234. Noted Apr. 15.

Boston, Mass.—Bids will be received until May 24 by the Supply Department for furnishing 150 tons of c.-i. special castings for the high pressure fire service. D. Frank Doherty is Supt.

Boston, Mass.—Bids were received May 10 by the Metropolitan Water and Sewerage Board for constructing a 60-in. pipe under portion of Section No. 5 of the Weston Aqueduct supply mains as follows: Charles A. Kelley, 25 Cherry St., Somerville, $27,177; John P. Cavanaugh Co., Boston, $27,282; James L. Pierce & Co., $27,526; The Henry Sprague Contracting Co., $28,515; M. Russo & Son Co., $29,283; James J. Conway, $29,874; Bruno & Petitti, $30,675 and Hugh Nawn Contracting Co., $30,688. Dexter Brackett is Ch. Engr. Noted May 6.

✚**Gardner, Mass.**—The contract has been awarded to the M. W. ALLEN CONSTRUCTION CO., Walpole, at about $10,000, by the Water Commissioners for constructing a 5,000,000-gal. reservoir on Reservoir Hill. Noted May 6.

✚**Needham, Mass.**—The contract for the construction of a steel standpipe with a capacity of 750,000 gal. has been awarded to the HODGE BOILER WORKS, Boston, at $7710. Other bidders were: Chicago Steel & Iron Works, $7650; New England Iron Works, $8940; Petroleum Iron Works, $9500; Riter-Conley Co., $9815 and the Walsh Steam Boiler Works, $10,585.

Shrewsbury, Mass.—(Official)—George S. Stone, Town Clk., advises us that the building of the water system is being held up while investigations of the price of pipe are being made, and pending the decision of the Water Commissioners as to shortening the lines. Noted Feb. 11, Apr. 24 and May 6 and 13.

Exeter, R. I.—Bids will be received until 10 a.m., May 27, by the Board of Contract and Supply for making extensions to the water and sewer systems at the Rhode Island School for the Feeble Minded. Gilbert R. Parker, 18 State House, Providence, is Secy.

★**Hartford, Conn.**—(Official)—Bids will be received until 3 p.m., June 2, by the Board of Water Commissioners for the construction of the east dike, Nepaug reservoir, in Canton. under Contract No. 9. Fred D. Berry is Secy., Bd. of Comrs.

✚**Batavia, N. Y.**—The contract has been awarded to J. H. BRADISH, Batavia, at $23 per ton for 10,000 ft. of 6-in. and 800 ft. of 8-in. Class B c.i. pipe. S. J. Carmichael is City Clk.

Canton, N. Y.—An election will be held June 2 to vote on the question of issuing $60,000 in bonds, the proceeds of which will be used for the installation of a filtration plant. Clarence S. Cook is a Trustee.

✚**New York, N. Y.**—(Official)—The contract has been awarded to Z. P. BOICE, Kingston, $38,680, for constructing 15 miles of wire fence with concrete posts and guard rails at the Ashokan reservoir. Noted May 13.

✚**New York, N. Y.**—(Borough of the Bronx)—(Official)—Contracts have been awarded to LOUIS CAPETTO at $27,865, and to the MELROSE CONSTRUCTION CO. for laying water mains in Grand Blvd. and the Concourse and in a number of streets. Noted May 13.

✚**New York, N. Y.**—(Boroughs of Manhattan and the Bronx)—(Official)—Contracts have been awarded to JOHN FOX & CO., at $2430 and $2290, for Sections 1 and 2 and to the A. P. SMITH MFG. CO., at $4872 and $9807, for Sections 3 and 4 for water pipe and specials. Noted Apr. 8 and May 13.

Atlantic Highlands, N. J.—Bids will be received until May 2. by W. T. Franklin, Borough Clk., for constructing 1½ miles of 4-in. to 8-in. c.-i. water mains.

Trenton, N. J.—The Hamilton Township Committee has voted in favor of extending the local water system to a point beyond Mercerville.

Wildwood, N. J.—The citizens voted in favor of purchasing the plant of the Wildwood Water Co., at $554,000. The city will install a fire main in Park Blvd., and fire hydrants. Noted Oct. 15 and Apr. 8.

Mifflinburg, Penn.—The citizens plan to build a 5,000,000-gal, reinforced-concrete reservoir. Alexander Potter, New York, N. Y., is Engr.

★**Ridgway, Penn.**—(Official)—Bids will be received until noon, June 1, by G. F. Greiner, Secy. of Council, for enlarging the filtration plant. F. W. Ward is Borough Engr.

Annapolis, Md.—The Annapolis Water Co. plans to construct a filtration plant, costing $29,000.

✚**Baltimore, Md.**—The contract has been awarded to the AMERICAN STEEL & WIRE CO., 30 Church St., New York, N. Y., at $11 per ton, for furnishing 2000 tons of sulphate of iron for the water department. Noted Apr. 29.

Covington, Va.—An election will be held June 5 to vote on the question of issuing $25,000 in bonds, the proceeds of which will be used for the construction complete of two reservoirs and for the extension of the distributing system. E. B. Butler is Mayor.

✚**Galax, Va.**—The contract has been awarded to R. L. BLEVINS, Bristol, Tenn., at $16,000, for pumps, a reservoir and 45 hydrants. B. D. Beamer is City Clk. Noted Apr. 22.

Grantsville, W. Va.—Bids will be received until 7 p.m., June 7, by S. T. Waldo, Recdr., for the purchase of $10,000 in bonds, the proceeds of which will be used for the construction of water and sewer systems. Noted Mar. 11.

✚**Ravenswood, W. Va.**—(Official)—The contract has been awarded to the H. C. BROOKS CO., Martinsburg, at $11,750, for constructing a water system. M. E. Gunther is Recdr.

✚★**Durham, N. C.**—Contracts have been awarded for constructing a water system as follows: CHRISTIAN CONSTRUCTION CO., Durham, at $32,977, for constructing a river station, city station and filter house; CHAPMAN VALVE MFG. CO., Indian Orchard, Mass., $2094, for gate valves; ALLIS-CHALMERS CO., Milwaukee, Wis., at $18,000, for pumping engines; DeLAVAL STEAM TURBINE CO., Trenton. N. J., at $11,200, for pumps and to the D. M. DILLON STEAM BOILER WORKS CO., at $7087, for boilers. Gilbert C. White Charlotte, is Engr. Noted Jan. 21 and Apr. 1.

Sylva, N. C.—Parker, Parker & Houser, Asheville, has been retained by the city to make surveys for the construction of the proposed water system.

✚**Jefferson, Ga.**—The contract has been awarded to CASE & COTHRAN, 1507 Chandler Bldg., Atlanta, for constructing a water system. Solomon-Norcross Co., Atlanta, is Engr. Noted Mar. 18.

Stone Mountain, Ga.—An election will be held June 5 to vote on the question of issuing $12,000 in bonds, part of which will be used for the construction of a water system.

Tallapoosa, Ga.—The citizens contemplate spending $40,000 for the construction of water and sewer systems.

Thomasville, Ga.—An election will probably be held to vote on the question of issuing $30,000 in bonds, the proceeds of which will be used for the extension of the water and electric-light systems.

Ft. Meade, Fla.—(Official)—Bonds for $7500 have been voted by the citizens, the proceeds of which will be used for the extension of the water and sewer system. G. L. Brodrick is Town Clk. Noted Sept. 10.

Lakeland, Fla.—Bonds for $135,000 have been sold, the proceeds of which will be used for the extension of the water and electric-light systems. Noted Oct. 22 and Feb. 18.

Phenix City, Ala.—(Phœnix post office)—Bonds for $16,000 have been voted by the citizens, the proceeds of which will be used for the extension and completion of the water system. Noted Apr. 29.

Pass Christian, Miss.—The City Council contemplates issuing $20,000 in bonds, part of which will be used for the extension of the water system.

Milan, Tenn.—Bonds for $12,000 have been voted by the citizens, the proceeds of which will be used for the improvement of the water and electric-light systems.

Shelbyville, Ky.—Bids will be received about June 1, according to press reports, for the installation of a rapid sand filtration plant for the water system. The estimated cost is between $12,000 and $14,000. Noted Apr. 29.

Marietta, Ohio—The city contemplates constructing a 6,000,000 gal. reservoir at an estimated cost of $50,000. E. F. Gates, Front St., is City Engr.

Wellington, Ohio—Bonds for $35,000 have been voted by the citizens, the proceeds of which will be used for the improvement of the water system. A reservoir and filtration plant will be constructed. Noted Apr. 1.

Westerville, Ohio—The citizens defeated the bond issue for $20,000, the proceeds of which was to have been used for the extension of the water system. Tthe question of issuing bonds will be submitted again to the voters. Noted Mar. 4.

Ahmeek, Mich.—An election will be held to vote on the question of issuing $17,000 in bonds, the proceeds of which will be used to build a water system. Noted Apr. 15.

✚Holland, Mich.—The contract has been awarded to JONKMAN & CLARK, Holland, at $15,500, by the Board of Public Works for constructing a water and light station.

Saginaw, Mich.—(Official)—We have been advised that the city will lay 6-in. water mains by day labor. R. F. Johnson is Comr. Noted May 13.

Aurora, Ill.—Bids will be received until 5 p.m., May 28, by the Board of Public Works for drilling and casing a 2200-ft. well. Noted May 6.

✚Joliet, Ill.—The contract has been awarded to the FOLEY CONSTRUCTION CO., Chicago, at $20,300, for constructing a reservoir.

✚Delavan, Wis.—The contract has been awarded to J. FLINT for laying water mains in alleys of the business section of the city.

✚Marcus, Iowa—The contract has been awarded to J. D. SHAW, Sioux City, at $20,000, by the city to drive a well for the new water system. Noted Apr. 29.

Spillville, Iowa—Bids will be received until 6 p.m., June 5, by the city for the construction of a water system. The materials required are as follows: 1625 ft. of 6-in., 2800 ft. of 4-in. mains, a 30,000-gal. tank or a 60,000-gal. concrete reservoir. The Des Moines Bridge & Iron Works, Des Moines, is Engr. Noted Apr. 8.

Campbell, Minn.—J. F. Druar, Consult. Engr., Commercial Bldg., St. Paul, has been retained by the city to prepare plans for the construction of a municipal water system. F. D. Glover is Pres. of Council.

✚Clinton, Minn.—The contract has been awarded to the DES MOINES BRIDGE & IRON CO., Des Moines, Iowa, at $4630, for making extensions to the water system. H. A. Hewitt is Recorder.

St. Paul, Minn.—The Water Board, according to press reports, has voted in favor of adopting the plan, submitted by Allen Hazen, New York, N. Y., for improvements to the water system. The estimated cost is $1,591,000.

Watkins, Minn.—Press reports state that C. H. West, St. Cloud, has been retained by the city to investigate the advisability of installing a water system and electric-light plant. Noted Apr. 15.

Garnett, Kan.—Bids will be received until May 25 by F. S. Mitchell, City Clk., for constructing a water system. Worley & Black, 301 Reliance Bldg., Kansas City, Mo., is Engr.

Canova, S. D.—Bonds for $9500 were voted at an election held May 11, according to press reports. The proceeds will be used for the installation of a municipal water system.

Caruthersville, Mo.—Bids will be received until June 2 by W. D. Byrd, Mayor, for making extensions and improvements to the water system. Frank L. Wilcox, Syndicate Trust Bldg., St. Louis, is Engr. Noted May 6.

Cumby, Tex.—Bonds for $10,000 have been voted by the citizens. The city will purchase the plant of the Cumby Water & Light Co. and will spend $70000 for making improvements to the plant. L. I. Mercer is Mayor. Noted Apr. 29.

Marlin, Tex.—The citizens contemplate spending $50,000 for the extension of the water system.

Beggs, Okla.—An election will be held May 20 to vote on the question of issuing $35,000 in bonds, the proceeds of which will be used for the construction of a water system.

Bromide, Okla.—(Official)—The Benham Engineering Co., Oklahoma, has been retained by the Board of Trustees to prepare estimates and plans for the construction of a water system and an electric-light plant. The probable cost is $15,000.

✚Montrose, Colo.—(Official)—Contracts have been awarded by the city for constructing a water system as follows: HENDRIE & BOLTHOFF MFG. CO., Denver, at $26,643 for steel pipe fittings, valves and hydrants; AMERICAN CAST IRON PIPE CO., Birmingham, Ala., at $22,124 for c.-i. pipe and specials and J. R. SUTHERLIN & CO., Kansas City, Mo., at $18,551 for labor, lead, jute, concrete and other materials not mentioned above. P. W. Pinkerton is City Mgr. Noted Feb. 18, Mar. 11 and 25, Apr. 8 and 22.

Centerville, Utah—An election will be held to vote on the question of issuing $40,000 in bonds, the proceeds of which will be used for the construction of a water system.

Sparks, Nev.—The Reno Power, Light & Water Co., Reno, plans to extend its system in Sparks.

✚Bellingham, Wash.—The contract has been awarded to the U. S. CAST IRON PIPE & FOUNDRY CO., Portland, Ore., at $30 per ton, for c.-i. water pipe.

✚Kirkland, Wash.—The contract has been awarded to J. ERICKSON, 5812 Woodlawn Ave., Kirkland, at $4995, for constructing a water system. The contract for furnishing pipe has been awarded to the AMERICAN WOOD PIPE CO., Tacoma, at $3933.

Prescott, Wash.—Bids will be received until May 24 by J. C. McSherry for making extensions to the water system. Noted Apr. 8.

✚Riverside, Wash.—(Official)—The contract has been awarded to C. A. COCHRAN, Spokane, at $8152, for constructing a water system. C. H. Green is Engr. and W. H. Patterson is Town Clk. Noted Apr. 29.

Tacoma, Wash.—The City Council contemplates installing water meters throughout its system. P. S. Savidge is Supt. of Water Wks. The estimated cost is $200,000.

Dallas, Ore.—(Official)—The citizens canceled the election which was to have been held for the purpose of voting $52,000 in bonds for the purchase and improvement of the water system. The election has been indefinitely postponed. Charles Gregory is City Recdr. Noted Mar. 25.

Reedsport, Ore.—Plans have been prepared by J. G. Kelley, Portland, for the construction of a six-mile pipe line from Clear Lake to supply water to Reedsport. The estimated cost is $100,000.

Seaside, Ore.—The installation of a water system is under consideration. The water will be obtained from Willanch Creek.

Hull, Que.—Bonds for $116,000 have been voted, the proceeds of which will be used for making extensions to the water system including the installation of an auxiliary turbine pump. Noted Dec. 24.

Montreal, Que.—Bids will be received until noon, June 15, by L. Lefebore, Ch. Engr., of the Quebec Streams Comn., 264 Parliament Bldg., Montreal, for constructing a storage water dam at La Loutre on the St. Maurice River.

Toronto, Ont.—New bids will be received by R. C. Harris, Comr. of Pub. Works, for two electrically driven centrifugal pumps of 20,000,000 gal. capacity for the main pumping station.

Wallaceburg, Ont.—Bids will be received until June 1 by the city for laying water mains.

SEWERS

Boston, Mass.—Bids were received Jan. 21 for the construction of the Dorchester Brook sewer and a sewer in Judson St., Dorchester District, as follows: West Roxbury Trap Rock Co., $44,470; Anthony Baruffaldi, $46,538; M. Russo & Sons, $47,255; Henry Sprague Construction Co., $47,739; William J. Barry, $47,868; James T. Conway, $50,309; Peter Bompiani & Co., $51,221; A. G. Tomasello, $52,705; Antony Cefalo, $52,758; McCarthy & Walsh, $53,241; George M. Bryne, $54,120; Coleman Bros., $54,982; William Barrett Co., $56,459; Peter W. Hill, $58,954; John Landis, $59,138; Charles Satorel, $59,959; John Guarino, $62,203; Robert L. Barrett, $62,874; Hugh Nawn Construction Co., $63,706. Noted Jan. 14.

✚Boston, Mass.—Bids were received May 7 by the Department of Public Works for sewerage work in Kempton and Mission St., Roxbury District, as follows: V. GRANDE, 50 Hull St., Boston, $1206 (awarded contract); James J. Conway, $1210; John Guarino, $1353; James Driscoll & Son Co., $1386; Charles Latorella, $1442; Timothy Coughlin, $1641; A. E. Daddario & Co., $1671; Antony Cefalo, $1693; Booth & Daddario, $1797; John McCourt Co., $1866; Charles J. Jacobs Co., $1895; M. H. Kelley, $1925; John A. Costello & Co., $1942; Peter Bompiani & Co., $2762; James L. Pierce & Co., $2968. Noted May 6.

Exeter, R. I.—See item under "Water Supply—Irrigation."

Pawtucket, R. I.—Bids will be received until noon, May 26, by George A. Carpenter, City Engr., for the construction of sewer from the filter fields north through the Moshassuck Valley to St. Francis Cemetery. J. D. Marshall is Chn. of Sewer Com.

✚Bridgeport, Conn.—The contract for the construction of sewers in Seaview and Housatonic Ave. has been awarded to the B. D. PIERCE, JR., CO., Bridgeport, at $18,600 and $56,886, respectively. Noted Apr. 29.

Torrington, Conn.—Plans have been submitted by George L. Robinson, Engr., New York, N. Y., for the construction of a septic tank to take care of the sewage and protect the watershed of the Torrington Water Co.

Westford, Conn.—The city contemplates the construction of a sewage-disposal plant and sewers.

Avon, N. Y.—Bids will be received until May 24 by the Board of Sewer Commissioners for the construction of 7000 ft. of sewers with manholes and flush tanks. William H. Clark is Village Clk. Noted Apr. 1.

Corona, N. Y.—Plans have been prepared for the construction of a sewer in Polk Ave. from 51st St. to Junction Ave. The estimated cost is $45,500.

Cortland, N. Y.—The city contemplates issuing $25,000 in bonds for the construction of sewers.

Kenmore, N. Y.—An election will soon be held to vote on the question of issuing $18,000 in bonds, the proceeds of which will be used for the construction of a sewer system. Mathew D. Young is Village Pres. Noted Jan. 28.

+New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract for the construction of a sewer in Wortman Ave. from New Jersey Ave. to Vermont St. has been awarded to the PELLAGRINO CONSTRUCTION CO., at $5017. Bids were opened Apr. 28. Noted Apr. 22 and May 6.

+New York, N. Y.—(Borough of Brooklyn)—(Official)—Contracts have been awarded to NORTON & GORMAN, at $125,953 and $109,994, for the construction of sewers in various streets of the borough. Bids were opened Apr. 28. Noted May 6.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., May 24, by Marcus M. Marks, Borough Pres., for the construction of sewers in Liberty St. from Nassau St. to Broadway.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m., May 24, by Maurice M. Connolly, Borough Pres., for the construction of sewers and appurtenances in Polk Ave. from 51st St. to Junction Ave., Second Ward, and in Van Alst Ave. from Broadway to Ridge St., and in Ridge St. from Van Alst to Ely Ave., First Ward.

Rome, N. Y.—The Water and Sewer Board has approved plans prepared by C. W. Knight & Son, Consult. Engr., for the construction of the proposed sewage-disposal plant. Noted Oct. 29.

Chatham, N. J.—Bids will soon be received by J. W. Wagner, Chn. of Sewer Com., for the construction of a sewer in Summit Ave.

Newark, N. J.—Bids were received May 11 by the Passaic Valley Sewer Commission for the construction of the northerly portion of Section 19 of the Acquacknock, Garfield and Passaic branch of the Main Intercepting Sewer as follows: Harrison & Craig Co., Newark, $61,740; U. S. Drainage & Irrigation Co., New York, N. Y., $76,870; Culp Co., Inc., Paterson, $76,965; Harrison & Hall, New York, N. Y., $77,927; Cendalla & Co., Passaic, $82,975; Union Building & Construction Co., Passaic, $88,021; Oscar Daniels Co., New York, N. Y., $92,322. Noted May 6.

Palisades Park, N. J.—(Official)—Bids were received May 11 for constructing (a) sewer system and (b) a sewage-disposal plant as follows: Rudolph Garoni, Ft. Lee, N. J., (a) $50,934; Di Napoli & Toriele Construction Co., Hackensack, (a) $53,341; F. E. Gross & Son, Inc., Yonkers, N. Y., (a) $55,270, (b) $5158; Martin Miller & Pizzimenti, Cauldwell, (a) $55,385, (b) $7096; Frank Puglia, Paterson, (a) $60,781, (b) $5661; Edward English, Englewood, (a) $61,389, (b) $8203; Nolan & Hornung Construction Co., West Hoboken, (a) $63,384; Fusco Construction Co., Newark, (a) $68,042, (b) $9542; Averille Mathews Co., Newark, (b) $4980; Suburban Engineering Co., (b) $5894; A. E. Matthews, New York, N. Y., (b) $10,620; F. R. Long & W. G. Broadhurst, Hackensack, (b) $7559. B. E. Budds is Mayor.

Verona, N. J.—Plans are being prepared for the construction of a sewer system and a sewage-disposal plant. The estimated cost is $150,000. Robert Chesney is Clk. Frank W. Crane, 460 Bloomfield Ave., Montclair, and Clyde Potts, 30 Church St., New York, N. Y., are Engrs. Noted May 13.

Washington, N. J.—Bids will soon be received for the construction of storm sewers in Grand and West Washington Ave. Wilmot Eckel is Engr.

+Allentown, Penn.—The contract has been awarded to SHAFFER & ACKERMAN for the construction of an inverted siphon sewer and another sewer to connect with the Liberty St. storm sewer.

Downingtown, Penn.—At a recent election the citizens voted to issue $70,000 in bonds, the proceeds of which will be used for the construction of a sewer system and sewage-disposal plant. Noted Oct. 22, Nov. 5 and May 6.

Johnstown, Penn.—At a recent election the citizens defeated the question of issuing $1,100,000 in bonds, the proceeds of which was to have been used for the construction of a sanitary sewer system and a sewage-disposal plant. C. P. Collins is Sanitary Engr. and Samuel M. Gray is Consult. Engr.

Montrose, Penn.—Bids will be received until June 10 by Borough Clerk for the construction of sewers and a sewage-disposal plant. The estimated cost is $9000, V. H. Shaw, Lancaster, is Consult. Engr.

+Philadelphia, Penn.—Contracts for sewer construction have been awarded as follows: ROBERT HIGGINS, at $23,000, for the sewer in Adams Ave.; PHILADELPHIA PAVING & CONSTRUCTION CO., at $18,300, for the sewers in Fairhill and Fifth St. and in Olney Ave.; FRANK MARK CONSTRUCTION CO., at $28,000, for the Rock Run sewer in Seventh St.; JOSEPH LOMBARDI, at $24,000, for the Rock Run sewer in Ashdale St., ROBERT LOMBARDI, at $23,000 for the sewer in Robbins St.; EMILIO CASCUZZI, at $23,000, for the sewer in Venango St.; PEOPLE BROS., at $15,000, for the Winghocking St. sewer in Annsbury St. The contract for repairing the Thompson St. sewer has been awarded to the KEYSTONE STATE CONSTRUCTION CO., at $34,500. The contracts for the installation of inlets, manholes, wellholes, laterals and sewer spurs in different parts of the city has been awarded to J. JOSEPH McHUGH and F. T. BUCKIUS, at $15,000 respectively. Noted Apr. 22.

+West Chester, Penn.—(Official)—The contract for the construction of a sewer system has been awarded to M. & T. E. FARRELL, West Chester, at $8880. W. R. Rambo is City Engr.

Middletown, Del.—At a recent election the citizens defeated the question to issue $25,000 in bonds, the proceeds of which was to have been used for the construction of a sewer system. Noted Dec. 3 and 24.

+Charleston, W. Va.—Contracts for sewer constructio have been awarded to the CHARLES M. SCANLON CONSTRUCTION CO., Huntington, and to JAMES FERRY & SONS Baltimore, Md.

Grantsville, W. Va.—See item under "Water Supply-Irrigation."

Huntington, W. Va.—Bids will be received until May 2 by the City Commissioners for the construction of sewer in various streets. A. B. Maupin is City Engr.

+Ravenswood, W. Va.—(Official)—The contract for the construction of sewers has been awarded to the W. N. SAUER PLUMBING CO., Pittsburgh, Penn., at $7306. J. V. Dunbar is Engr. Noted May 13.

Sylva, N. C.—Preliminary plans are being prepared by Parker & Houser, Asheville, for the construction of a sewer system.

+Atlanta, Ga.—The contract for the construction of Group No. 2 of Atlanta lateral sewers has been awarded to CASE & COTHRAN, 1507 Candler Bldg., Atlanta.

+Baxley, Ga.—(Official)—The contract for the construction of a sewer system has been awarded to W. HOPSON GOODLOE, Macon, Ga.

East Lake, Ga.—(Atlanta post office)—The citizens have voted $15,000 in bonds, the proceeds of which will be used for the construction of sewers and a drainage system. Howard Geldert is City Clk.

+Jefferson, Ga.—A contract has been awarded to CASE & COTHRAN, 1507 Candler Bldg., Atlanta, for sewer construction. Noted Mar. 18.

Tallapoosa, Ga.—The city contemplates issuing $40,000 in bonds for sewer and water works construction.

+Slocomb, Ala.—(Official)—The contract for the construction of a sewer system has been awarded to W. HOPSON GOODLOE, Macon, Ga.

Gulfport, Miss.—The City Commissioners contemplate issuing $5000 in bonds for the construction of a sanitary sewer system.

+New Orleans, La.—The contract for the construction of addition to the pumping plant, Station No. 2, Contract 72-D, has been awarded to HAMPTON REYNOLDS, New Orleans, at $43,850. The contract for building sluice gates for Station No. 2, Contract 73-D, has been awarded to the CHAPMAN VALVE MFG. CO., Springfield, Mass., at $18,000. Noted Apr. 19 and May 13.

Paducah, Ky.—Plans have been prepared by the Aetna Engineering Co., Chicago, Ill., for the construction of a trunk sewer. L. A. Washington is Comr. of Pub. Wks. Noted Apr. 15 and 29.

Akron, Ohio—The State Board of Health has tentatively approved the request of the City Council for making changes in the plans for the construction of a sewage-disposal plant by lowering the cost $112,000. It is proposed to eliminate half of the filter beds and one sediment basin. R. Winthrop Pratt, Hippodrome Bldg., Cleveland, is Consult. Engr.

Cincinnati, Ohio—Bids were received May 3 by the Director of Public Service for constructing sewers in (a) Waveland Pl., (b) in Pinetree St., (c) in Kling and Mignon Ave., (d) in Julia Ann St., (e) in Larkspur Ave., as follows: Thomas P. Strack, Cincinnati, (a) $979, (b) $555, (c) $3746, (d) $1539, (e) $3022; D. P. Foley, Cincinnati, (a) $1014, (b) $790, (c) $2819 (informal), (d) $1254, (e) $2378; John Ruebel Construction Co., Cincinnati, (a) $1054, (c) $3738, (d) $1376, (e) $2902; M. J. Connelly, Jr., Cincinnati, (a) $1056, (b) $493, (c) $3244, (d) $1220; Welling & Franz, Cincinnati, (a) $1099, (b) $733, (c) $3131, (d) $1555, (e) $2378; Wagner & Boehning, Cincinnati, (a) $1146, (b) $565, (c) $3326, (d) $1369, (e) $2418; Evan Evans, Cincinnati, (a) $1192, (b) $698, (c) $3518, (d) $1792, e) $2855; Cannell-Ames Construction Co., Columbus, (a) $1644, (b) $847, (c) $4748, (d) $2080, (e) $2545; Thomas Maloney, Cincinnati, (b) $590, (c) $1419, (e) $2398; Henkel & Sullivan, Cincinnati, (c) $3574, (d) $1530; A. J. Cavanaugh, Cincinnati, (e) $1944; John Dempsey, Cincinnati, (e) $2119; J. M. McCarthy, Cincinnati, (e) $2184. Noted Apr. 29.

Cleveland, Ohio—Bids will be received until noon, May 27, by the Commissioner of Purchase and Supplies for the construction of sewers in Sandusky Ave. from East 93rd to East 102nd St., in Luke Rd. from East 134th to East 140th St., and in Superior Ave. from East 79th to East 82nd St. Robert Hoffman is City Engr.

Cleveland, Ohio—The lowest bid submitted for the construction of the East 65th St. sewer was that of John Wagner & Son., Cleveland, at $78,283. Other bids were: Manson Co., $84,741; J. Connelly Construction Co., $85,222; Hoag & Dall, $85,892; James Duff Construction Co., $102,949; Central Ohio Construction Co., $116,828. Robert Hoffman is City Engr.

+Norwood, Ohio—The Board of Control has awarded the contract for the construction of a segmented block sewer in Foraker Terrace to WELLING & FRANZ, at $6900.

Sandusky, Ohio—Bids will soon be received by J. J. Molter, Dir. of Pub. Ser., for the construction of an intercepting sewer along the water front from Mills to Meigs St. The estimated cost is $98,000. R. L. J. Wagar is Engr.

Youngstown, Ohio—Bids will be received until noon, May 25, by H. C. Fox, Clk., for the construction of sewers in Japan St.

Brazil, Ind.—Preliminary plans have been prepared by F. C. Wilson, City Engr., for the construction of a trunk sewer for the West Side. Bids will soon be received by F. K. De Armoney, Clk. of City Council, for the construction of same.

+Gary, Ind.—(Official)—The contract for the construction of District Sewer No. 24 has been awarded to W. F. BRUNT, Hammond, at $4215. W. J. Fulton is City Engr. Noted Mar. 8, Apr. 1 and May 13.

Princeton, Ind.—The construction of the proposed sewer system for the South Side has been indefinitely postponed. H. J. Toelle is City Engr. Noted May 6.

Christopher, Ill.—Bids will be received about July 1 by John W. Dye, Mayor, for the construction of a sewer system estimated to cost $62,000. Plans have been prepared by L. T. Putnam, Benton, Engr.-in-Charge. Noted Apr. 1.

Herrin, Ill.—(Official)—The contract for the construction of a mechanical filtration plant, with a 1,000,000 gal. daily capacity, will be awarded this month. R. L. Adams is City Engr.

Peoria, Ill.—Bids will be received until May 31 by the Commissioner of Public Works for the construction of 8-, 10-, 12- and 18-in. vitrified sewers with manholes. E. Bridges is City Engr.

Green Bay, Wis.—No bids were received by the City Clerk, May 4, for the construction of a 12-, 24-, 30-, 36- and 42-in. sewers in Irwin Ave. Noted Dec. 21 and Apr. 29.

Madison, Wis.—It is reported that work will soon be started on the improvement of the sewer system. The estimated cost is $91,000.

✚Oshkosh, Wis.—The contract for constructing 3000 ft. of 12- to 27-in. vitrified pipe sewer has been awarded to R. MIERSWA & SON, Oshkosh. AUGUST STREY, Oshkosh, has been awarded the contract for constructing 2700 ft. of 12- to 27-in. vitrified pipe sewer. George Randall is City Engr.

Oshkosh, Wis.—Bids will be received by George Randall, City Engr., for the construction of storm and sanitary sewers. The estimated cost is $35,000.

Racine, Wis.—Bids will be received until 10 a.m., May 22, by the Board of Public Works for the construction of sewers in 21st St. from Lake Michigan to West Blvd. P. H. Connolly is City Engr.

Racine, Wis.—Plans are being prepared by the Board of Public Works for extending the outlets of the English and 16th St. sewers into the lake such a distance that the outlets shall be submerged.

Wausau, Wis.—The city will issue $28,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

Wausau, Wis.—(Official)—Bids will be received until 10 a.m., May 27, by the Board of Public Works for the construction of sewers. The estimated cost is $30,000. B. C. Gowen is City Engr. Noted May 13.

West Allis, Wis.—(Official)—Bids will be received until 1 p.m., May 29, by the Board of Public Works for the construction of storm sewers. E. G. Orbert is City Engr.

Davenport, Iowa—(Official)—The City Council has appointed a Sewerage Commission to prepare plans for the construction of a new sewer system and make an examination of the existing sewer system. John W. Crowley, Comr .of Pub. Wks., is Chn. of Comn. A. E. Boudinot is City Engr.

Lake Mills, Iowa—Bids will soon be received for the construction of a sewer system and a sewage-disposal plant. The estimated cost is $25,000. M. Tschirgi & Son, Engr., 713 American Trust Bldg., Cedar Rapids, prepared the plans. Noted Apr. 1.

Laporte City, Iowa—Plans are being prepared by M. Tschirgi & Son, Engr., 713 American Trust Bldg., Cedar Rapids, for the construction of a sewer system and a sewage-disposal plant. The estimated cost is $30,000. G. E. Stebbins is City Clk.

Salix, Iowa—Plans are being prepared by W. L. Bruce, Yankton, S. D., for the construction of a sewer system. The estimated cost is $10,000.

Duluth, Minn.—The city contemplates the construction of sanitary sewers in Tacony and Olney St. John Wilson is City Engr.

✚Eveleth, Minn.—The contract for the construction of a sewer has been awarded to the LAWRENCE-McCANN CO., at $4000.

✚Fairmont, Minn.—The contract for the construction of 8700 ft. of sewer has been awarded to the J. W. TURNER IMPROVEMENT CO., Des Moines, Iowa, at $13,016.

✚Glencoe, Minn.—The contract for the construction of a sewer has been awarded to J. M. DONAHUE, Stevens Point, Wis., at $6000.

✚Litchfield, Minn.—The contract for the construction of sewers has been awarded to E. LENHARD, Litchfield, at $5995. Other bids were: Illstrup & Olson, Minneapolis, $6890; Carl Christenson, Litchfield, $7161; F. A. Glass, Litchfield, $7771; Pastoret Construction Co., Duluth, $7380; Kircher Bros., St. Paul, $7715.

St. Paul, Minn.—Bids will be received until 10:30 a.m., May 24, by August Hohenstein, Pur. Agt., for the construction of sewers in various streets.

Spooner, Minn.—Surveys are being made by the Duluth Engineering Co. for the construction of sewer extensions.

Clyde, Kan.—Preliminary plans are being prepared for the construction of a sewer system. The estimated cost is $25,000. E. T. Archer & Co., 407 New England Bldg., Kansas City, Mo., is Engr.

✚Valley Falls, Kan.—(Official)—The contract for the construction of a sewer system has been awarded to the SQUIRE ELECTRIC & CONSTRUCTION CO., Kansas City, Mo., at $38,186. Other bids were: Lander & Gessner, Kansas City, Mo., $38,855; McGuire & Co., Leavenworth, Kan., $34,268; Intermountain Bridge & Construction Co., Tecumseh, Neb., $40,742; McCoy & Tayler, Ft. Scott, Kan., $41,992; Alamo Engineering & Supply Co., Omaha, Neb., $49,948. Worley & Black, Kansas City, Mo., is Consult. Engr. Noted Apr. 22 and 29.

✚Dundee, Neb.—(Omaha post office)—The contract for sewer construction has been awarded to PATRICK McARDLE, 1901 Park Ave., Omaha, at $5000.

Wisner, Neb.—At a recent election the citizens voted in favor of issuing $20,000 in bonds, the proceeds of which will be used for the construction of a sewer system. C. S. Daily is City Clk. Noted Apr. 1.

Armour, S. D.—The city will construct a sewer system, estimated to cost $20,000.

Brookings, S. D.—At a recent election the citizens voted to issue $88,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

Howard, S. D.—(Official)—Bonds for $24,000 have been sold, the proceeds of which will be used for the construction of sewers. W. S. Bradbury is City Engr. Noted Apr. 29.

Parkston, S. D.—Plans have been prepared by W. L. Bruce, Yankton, S. D., for the construction of a sewer system. The estimated cost is $40,000.

Caruthersville, Mo.—Bids will be received until June 2 by W. D. Byrd, Mayor, for the construction of sewerage system. Frank L. Wilcox, Syndicate Trust Bldg., St. Louis, is Engr.

✚Kansas City, Mo.—The Board of Public Works has awarded the contract to MIDDLETON & LUDLOW for the construction of sewers in Districts Nos. 10 and 365 at $3522 and $12,588, respectively.

Springfield, Mo.—An election will be held June 2 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for the construction of sewers and repairs to the old sewers.

Cleburne, Tex.—Bids will be received until 2 p.m., June 4, by Charles Wilhite, City Secy., for the construction of a sanitary sewer system and a sewage-disposal plant. The estimated cost is $180,000. Noted Oct. 8 and Mar. 25.

San Benito, Tex.—The city contemplates the construction of a municipal sewage-disposal plant.

Ogden, Utah—Plans have been approved by the City Commissioners for the construction of 4000 ft. of 8-in. pipe sewer. Washington Jenkins is City Engr.

✚Seattle, Wash.—The contract for the construction of sewers in Leary Ave. has been awarded to BENJAMIN, HAWKEY & GARTER, Seattle, at $19,974. Noted May 13.

✚Spokane, Wash.—(Official)—Contracts for the changes in the three groups of sewers in connection with the Northern Pacific grade separation work has been awarded to W. J. HOY CO., at $25,500; HEIKKILA, MILLER & LUOTO, at $1946 and $1885. Morton Macartney is City Engr. Noted Apr. 1 annd 29.

Portland, Ore.—The City Council contemplates constructing sewers in Cumberland Rd. The estimated cost is $9524.

✚Los Angeles, Calif.—(Official)—The contract for the construction of a sewer in Mission St. from Baldwin St. to North Broadway has been awarded to ADAM DALMATIN, 475 South Savannah St., Los Angeles, at $6300. Other bids were: B. Zaich, $5920; Mlayenovich & Gillespie, $7400; Andrew Jayidi, $7892; J. J. Veselich, $8900; John Sutalo, $9368. Homer Hanlin is City Engr.

Sacramento, Calif.—Bids will soon be received by the City Commissioner for the construction of the fifth unit of the trunk sewer in the annex district. M. J. Desmond is City Clk.

San Diego, Calif.—Plans are being prepared by the Department of City Engineering for the construction of a drainage conduit, approximately one mile long, in N St. from 13th St. to the bay.

Halifax, N. S.—The city will construct extensions to the sewers by day labor. The estimated cost is $150,000. T. W. Doane is City Engr. Noted Apr. 15.

St. Lamberts, Que.—An election will be held May 21 to vote on the question of constructing a trunk sewer and a sewage-disposal plant. The estimated cost is $200,00. E. Denkwater is City Engr.

Mille Roches, Ont.—Bids will be received until June 7 by John Mullin, Town Clk., for the construction of a drain estimated to cost $9000.

Toronto, Ont.—Bids will be received until noon, May 25, by T. L. Church, Chn. Bd. of Control, for the construction of the Argyl St. storm overflow sewer, Section No. 3, and for constructing sewers in St. Helen, McConnell, St. Claren, Lansdowne and Lumbervale Ave. and in College St.

Wallaceburg, Ont.—Bids will be received until June 1 by the city for the construction of sewers.

✚Esquimalt, B. C.—The contract has been awarded to THOMAS E. YOUNG, at $25,082, for the installation of Section A of the sewer system in the Craigflower District.

GARBAGE

Montclair, N. J.—The Garbage Disposal Committee of Montclair and Glen Ridge plan to build a joint garbage disposal plant. Hering & Gregory, 170 Broadway, New York, N. Y., is Engr.

Cincinnati, Ohio—The Board of Public Service and the Department of Health plan to build incinerating plants in the suburbs.

✚Lansing, Mich.—According to press reports the contract has been awarded to the CLEVELAND CHEMICAL CO., by the city for the collection and disposal of garbage. The company plans to build an incinerator at an estimated cost of $60,000. Noted Dec. 31 and Feb. 18.

✚Pontiac, Mich.—The contract for constructing an incinerator has been awarded by the City Commissioners to HENRY WAGNER, Cincinnati, Ohio, at $4603. Noted Mar. 25.

Sheboygan, Wis.—Bids were received May 7 by the Board of Public Works for a 12-ton garbage incinerator from: Decacie Incineratory Co., Minneapolis, Minn., $8800 and McGuire Incinerator Co., Chicago, Ill., $8785. Noted Dec. 24.

Superior, Wis.—According to press reports the city will build an incinerator at an estimated cost of $9000. C. M. Gould is Comr. of Health. Noted Nov. 12.

Lincoln, Neb.—Bonds for $50,000 have been voted, the proceeds of which will be used for the construction of a garbage disposal plant. Noted Apr. 15 and 29.

Joplin, Mo.—An election will soon be held to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the construction of an incinerator. Noted Jan. 21.

STREETS AND ROADS

Derry, N. H.—Bids will be received until May 21 by the Superintendent of Highways for the resurfacing of the Rockingham Rd. in Salem and Derry. F. E. Everett, Concord, N. H., is Actg. Supt. State Highway.

Boston, Mass.—Bids will be received until May 2 by Public Works Department for asphalt, bitulithic and bituminous roadways in Mayhew and Oakland St., and until May 24 in Perth St. and Melvinside Terrace, Dorchester District. Patrick O'Hearn is Acting Comr.

Boston, Mass.—Press reports state that the city plans to spend approximately $500,000 for improving downtown streets. Patrick O'Hearn is Acting Comr. of Pub. Wks.

Boston, Mass.—Bids will be received until May 21 by the Supply Department for 200,000 gal. of road oil.

✚Hartford, Conn.—Bids were received May 10 by the State Highway Commissioner for state road work and contracts awarded as follows: Simsbury Township, about 5300 lin.ft. bituminous macadam (a), warrenite (b) or amiesite (c) pavement on Main St.: Connecticut & Rhode Island Co., Meriden, (c) $12,723; Warren Bros. Co., Boston, (b) $15,650; Edward Tracy, Derby, (a) $14,300; Edward Balf Co., Hartford, (a) $15,621; UNION PAVING CO., Schenectady, $12,723 (awarded contract). Greenwich Township, about 8475 lin.ft. of bituminous concrete (a), amiesite (b) or warrenite (c) pavement on Boston Post Rd.: Edward Tracy, Derby, (a) $19.949; Union Paving Co., Schenectady, (a) $18,767; Barker-Bonner, Inc., New York, (a) $19,366; W. H. ARTHUR, Stamford, (a) $17,138 (awarded contract); Charles T. Eastburn Co., Mount Vernon, (b) $17,987; Daly & Merritt, Port Chester, (a) $31,934; Warren Bros. Co., Boston, (c) $21,348. Westport Township, a section of brick pavement on the Boston Post Rd.: Daly & Merritt, Port Chester, $4950; H. Sanford Osborn, Redding Ridge, $4920; CONNECTICUT HASSAM PAVING CO., New Haven, $4698 (awarded contract); Charles T. Eastburn Co., Mt. Vernon, $4818; Barker-Bonner, Inc., New York, $5125; B. D. Pierce, Jr., Co., Bridgeport, $6562; Connecticut Good Roads & Construction Co., New Britain, $4870. Noted May 6.

Hartford, Conn.—Bids will be received until 2 p.m., June 1, by the State Highway Commissioner for constructing roads as follows: Barkhamsted Township, about 6160 lin.ft. combination gravel and native stone macadam or native stone macadam on the Pleasant Valley Rd. This work includes a reinforced-concrete bridge 22 ft. long. Hartland Township, about 8300 lin.ft. native stone macadam on the Riverton Rd. Somers Township, about 3198 lin.ft. native stone macadam on the Stafford-Somers trunk line. Andover Township, about 7300 lin.ft. native stone macadam on the Hebron Rd. This work includes a reinforced-concrete bridge, 40 ft. long.

✚Albany, N. Y.—(Official)—Bids were received May 11 by Edwin Duffey, State Highway Comr., and contracts awarded for repairing roads as follows:

Repair Contract No. 744, Chautauqua and Cattaraugus Counties, 33.38 miles—DALE ENGINEERING CO., Utica, $15,932 (awarded contract); Richard Hopkins, Troy, $16,152; I. B. Contracting Corporation, New York, $16,190; F. Harrison Higgins, Olean, $17,113; Defiance Corporation, Ticonderoga, $16,628; F. W. Knickenberg, Buffalo, $16,025.

Repair Contract No. 742, Cayuga County, 11.24 miles—J. H. Weidman, Syracuse, $18,152; DANA W. ROBBINS, New York, $17,481 (awarded contract); Brayer Bros., Auburn, $17,759.

Repair Contract No. 712, Cortland County, 11.22 miles—A. L. Call, Cortland, $4937; Paddleford & King, Sherburne, $4901; PATHFINDER CONSTRUCTION CO., INC., Fulton, $4350 (awarded contract); Nash & Griffin, Norwich, $5051; Richard Hopkins, Troy, $4599; Dana W. Robbins, New York, $4581; Fred G. Dutcher, Fulton, $4841; I. B. Contracting Corporation, New York, $4713; Michael O'Brien, Cortland, $4802.

Repair Contract No. 725, Dutchess County, 11.07 miles—Westchester-Dutchess Corporation, Mt. Vernon, $9797; Henry Clinton, Poughkeepsie, $10,240; Van Aken-Rifendery, Kingston, $10,604; John A. Jova, Inc., Newburgh, $9345; Thomas Brown, Poughkeepsie, $10,188; EDWARD HARTNEY, Modena, $8725 (awarded contract); I. B. Contracting Corporation, New York, $10,858; Defiance Corporation, Ticonderoga, $10,680; Thomas J. Martin, Beacon, $10,043; William Doyle, Saugerties, $10,060.

Repair Contract No. 743, Erie County, 22.79 miles—Defiance Corporation, Ticonderoga, $11,256; I. B. Contracting Corporation, New York, $11,012; F. W. KNICKENBERG, Buffalo, $10,860; De Barber & Hill, Fulton, $11,562.

Repair Contract No. 739, Lewis County, 15.77 miles—Burns Bros. & Haley, Watertown, $9076; Klock Co., Inc., Watertown, $8630; Guy H. Miller, Watertown, $8363; Semper Bros., Watertown, $8165; Harry W. Roberts & Co., Utica, $7963; DANA W. ROBBINS CO., New York, $7482; DeBarber & Hill, Fulton, $8399; I. B. Contracting Corporation, New York, $561; Richard Hopkins, Troy, $8089; Dale Engineering Co., Utica, $9695.

Repair Contract No. 737, Livingston and Ontario Counties, 22.33 miles—Hedley Good Roads Co., Philadelphia, Penn., $3604; Sweeney & Boland, Rochester, $3613; I. M. Ludington Sons, Inc., Rochester, $3634; Dale Engineering Co., Utica, $3888; E. P. STROWGER, Pittsford, $3598 (awarded contract).

Repair Contract No. 735, Monroe County, 19.94 miles—Ribstine-Holter Co., Inc., Rochester, $4004; Sweeney & Boland, Rochester, $3673; CROUCH BROS., Rochester, $3326 (awarded contract); Dale Engineering Co., Utica, $4248; I. B. Contracting Corporation, New York, $3948; Hedley Good Roads Co., Philadelphia, Penn., $3751; I. M. Ludington Sons, Inc., Rochester, $3833.

Repair Contract No. 736, Monroe County, 21.47 miles—I. M. Ludington Sons, Inc., Rochester, $5990; Hedley Good Roads Co., Philadelphia, Penn., $5995; Dale Engineering Co., Utica, $6215; CROUCH BROS., Rochester, $5466 (awarded contract); I. B. Contracting Corporation, New York, $6142; Sweeney & Boland, Rochester, $5710; Ribstine-Holter Co., Inc., Rochester, $6099.

Repair Contract No. 722, Niagara County, 28.43 miles—F. W. Knickenberg, Buffalo, $13,439; Defiance Corporation, Ticonderoga, $13,683; I. B. CONTRACTING CORPORATION, New York, $13,341 (awarded contract); Dale Engineering Co., Utica, $13,697.

Repair Contract No. 528, Niagara County, 24.14 miles—John M. Hackett, Dunkirk, $10,434; Dale Engineering Co., Utica, $10,723; Defiance Corporation, Ticonderoga, $10,696; F. W. Knickenberg, Buffalo, $10,456; De Barber & Hill, Fulton, $11,063; I. B. CONTRACTING CORPORATION, New York, $10,316 (awarded contract).

Repair Contract No. 646, Ontario County, 18.42 miles—Sweeney & Boland, Rochester, $4277; HEDLEY GOOD ROADS CO., Philadelphia, Penn., $4195 (awarded contract); I. M. Ludington Sons, Inc., Rochester, $4393; I. B. Contracting Corporation, New York, $4561.

Repair Contract No. 738, Orleans County, 20.54 miles—CLARENCE E. WALKER, Troy, $5393 (awarded contract); Dale Engineering Co., Utica, $6027; I. B. Contracting Corporation, New York, $6022; Hedley Good Roads Co., Philadelphia, Penn., $5803; Rhody & Clawson, Albion, $5926.

Repair Contract No. 739, Onondaga County, 14.91 miles—DANA W. ROBBINS, New York, $7125 (awarded contract); Fred D. Dutcher, Fulton, $7645; Richard Hopkins, Troy, $7366; I. B. Contracting Corporation, New York, $7675; John Capacefalo, Syracuse, $7445.

Repair Contract No. 720, Rensselaer County, 4.14 miles—Thomas H. Karr, Troy, $156; George Holler, Albany, $5087; E. A. FAILLE, Troy, $4487 (awarded contract); Crowe & Walsh, Pittsfield, Mass., $5726.

Repair Contract No. 727 (withdrawn).

Repair Contract No. 740, Tompkins County, 4.49 miles—Richard Hopkins, Troy, $5779; William Hassard, Trumansburg, $5625; John H. Gordon, Albany, $5564; Havard & Dater, Groton, $5041; J. H. WEIDMAN, Syracuse, $4888 (awarded contract); Patrick T. Conley, Ithaca, $5472.

Repair Contract No. 728, Westchester County, 25.01 miles—Daly & Merritt, Portchester, $17,577; Eggleston & Garthwaite, Yonkers, $17,161; Miguel L. Hauch, White Plains, $17,760; WESTCHESTER-DUTCHESS CORPORATION, Mt. Vernon, $15,245 (awarded contract); John L. Hayes Construction Co., Yonkers, $15,959; Edward Hartney, Modena, $16,500; I. B. Contracting Corporation, New York, $15,968; Thomas J. Martin, Beacon, $16,527; Murray & Gardner, Inc., Center Moriches, $19,212; Defiance Corporation, Ticonderoga, $17,601; White & Colligan, Purchase, $16,248. Noted Apr. 22.

★Albany, N. Y.—(Official)—**Bids will be received until 1 p.m., June 4, by Edwin Duffey, State Highway Comr., for constructing and repairing highways in various counties.**

Medina, N. Y.—The city has voted to borrow **$22,500** for the improvement of paving West Center St. with asphalt block.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 10:30 a.m., May 25, by Douglas Mathewson, Borough Pres., for 200,000 gal. of asphalt road oil, 1500 cu.yd. of ashes, 225,000 gal. coal tar road oil, 225,000 gal. of tar road oil and for repairing asphalt block pavement and setting curb where necessary.

✚New York, N. Y.—(Borough of Brooklyn)—(Official)—Contracts have been awarded for paving Belmont Ave. from Van Sinderen Ave. to Snediker Ave. and from Alabama to Pennsylvania Ave., Lincoln Pl. from Underhill to Washington Ave. and 21st Ave. from 60th to 64th St. to the TOPEKA PAVING CO., INC., at $4719, $5522 and $7467 respectively. Noted Apr. 29 and May 13.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., May 24, by Marcus M. Marks, Borough Pres., for improving Dutch St. from John to Fulton St., 24th St. from Sixth to Seventh Ave., 54th St. from Third to Lexington Ave., 160th St. from Ft. Washington Ave. to a point 418 ft. west, 30th St. from Ninth to Tenth Ave., 38th St. from First to Second Ave., 160th St. from Ft. Washington Ave. to Riverside Drive and for constructing concrete sidewalks and laying and relaying flagging in various streets.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were received May 5 by Marcus M. Marks, Borough Pres., for improving (a) Market St. from Cherry St. to East Broadway and Monroe St. from Pike to Market St., (b) 15th St. from Ave. A to Third Ave., (c) 30th St. from Eighth to Ninth Ave., (d) 32d St. from Second to Third Ave., (e) 40th St. from Second to Lexington Ave. as follows: Uvalde Asphalt Paving Co., (a) $13,350, (b) $20,168, (c) $7528, (d) $6503, (e) $10,523; Barber Asphalt Paving Co., (a) $18,436, (b) $17,099, (c) $7251, (d) $11,347, (e) $9204; Aztec Asphalt Co., Inc., (a) $13,496, (b) $13,421, (c) $5532, (d) $4566, (e) $7195; Sicilian Asphalt Paving Co., (a) $15,776, (b) $15,894, (c) $6035, (d) $5047, (e) $7930; Cleveland Trinidad Paving Co., (b) $20,163, (c) $7783, (d) $6433, (e) $23,336; Asphalt Construction Co., (c) $6739, (d) $5516, (e) $8734. Noted Apr. 29.

Jersey City, N. J.—(Official)—Bids will be received until 2 p.m., May 27, by the Board of Commissioners for paving Armstrong Ave. with brick and granite block pavement between the present macadam pavement west of Hudson Blvd. and West Side Ave. Michael I. Fagen is City Clk.

Jersey City, N. J.—The City Commissioners plan to repave and widen Ocean Ave. Henry Byrne is Comr.

Millburn, N. J.—The Millburn Township Committee plans the improvement of Prospect and Mountain Ave., Cypress, Maple, Pine and Elm St. with water-bound macadam pavement, providing roadways about 22 ft. wide. The work is estimated to cost $27,600.

Newark, N. J.—The Board of Street and Water Commissioners will improve Oraton St. and Clifton Ave. with asphalt pavement, on a 6-in. concrete foundation.

✚Trenton, N. J.—The Board of Freeholders has awarded a contract for the resurfacing of the Trenton-Allentown Turnpike with bituminous concrete to WILLIAM F. McGOVERN.

Trenton, N. J.—The Board of City Commissioners has approved an ordinance providing for the improvement of Ardmore Ave. with bituminous concrete on a 5-in. concrete base. Frank Thompson is City Clk.

Trenton, N. J.—The Board has received bids for the improvement of the Brunswick Pike, as follows: W. B. Spencer, $42,080; Charles A. Reid & Co., $42,606; Newton Paving Co., $43,658; Charles D. Beehurth, $45,236; Conrad Sebolt, $45,762; and Charles T. Eastburn, $45,762.

Weehawken, N. J.—The Township Committee is considering the improvement of Clifton and Columbia Terraces and Second and Seventh St., by paving with bituminous concrete.

West New York, N. J.—The Town Council plans to appropriate $18,000 for street and sewer work.

West New York, N. J.—The Town Council of West New York and the Township Commissioner of Weehawken, May 12, decided to improve Seventh St. between Park Ave. and the Blvd. loop. The street lies in the two towns.

West New York, N. J.—Bids will be received by the Town Council until May 25 for improving 16th St. from Bergenline Ave. to the Hudson County Blvd. and Buchanan and Westover Pl.

✚**Baltimore, Md.**—The contract for paving Haubert, Hull, Beason, Covington and Cross St. has been awarded to P. FLANIGAN & SON, at $42,183.

✚**Elizabeth City, N. C.**—The contract for paving Riverside Ave. and Road St. has been awarded to G. W. SWITZER & SONS.

✚**Greenville, N. C.**—(Official)—The contract for constructing sidewalks, combination curb and gutter and granite curb has been awarded to the GREENVILLE TILE & CONTRACTING CO., at $28,700.

Lincolnton, N. C.—Press reports state that the City Council plans to issue $20,000 in bonds, the proceeds of which will be used for street and other improvements.

✚★**Anderson, S. C.**—(Official)—The contract for laying about 75,000 sq.yd. of pavement has been awarded to the SOUTHERN PAVING & CONSTRUCTION CO., Chattanooga, at approximately $148,000. Noted Apr. 29.

LaFayette, Ga.—An election will be held July 7 to vote on the question of issuing $75,000 in bonds, the proceeds of which will be used for improving roads.

Thomasville, Ga.—The city contemplates holding an election for the purpose of voting on the question of issuing $50,000 in bonds, the proceeds of which will be used for paving streets.

DeLand, Fla.—An election will be held June 8 for the purpose of voting on the question of issuing $400,000 in bonds, the proceeds of which will be used for constructing roads in Volusia County.

Ft. Meade, Fla.—(Official)—Bids will be received until June 15 by the Board of Bond Trustees for the sale of $25,000 in bonds, the proceeds of which will be used for street paving.

Homestead, Fla.—The Commissioners of Dade County contemplate forming a special road district and issuing $100,000 in bonds, the proceeds of which will be used for highway improvements in the new district.

Lake City, Fla.—Bids will be received until May 31 for paving certain streets. The approximate cost of the work is $20,000. A. S. Miller is Engr.

Winter Park, Fla.—At a recent election the citizens voted in favor of issuing $10,000 in bonds, the proceeds of which will be used for street paving.

✚**McComb City, Miss.**—The contract for constructing concrete sidewalks has been awarded to P. C. POWERS & SON.

Meridian, Miss.—An election will be held June 10 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for connecting roads in Lauderdale County with paved streets in Meridian.

Pass Christian, Miss.—According to press reports the City Council plans to issue $20,000 in bonds, the proceeds of which will be used for improving sidewalks.

✚**Starkville, Miss.**—A contract for constructing 31 miles of highway in the First District of Oktibbeha County has been awarded to F. D. HARVEY & CO., Memphis, Tenn.

Lake Charles, La.—Bids will be received until June 1 by the Police Jury for grading and graveling approximately two miles of road from Ryan and Alvin St. to south end of the proposed bridge across the Calcasieu River.

Sweetwater, Tenn.—An election will be held June 10 to vote on the question of issuing $5000 in bonds, the proceeds of which will be used for paving streets.

Louisville, Ky.—Bids will be received until May 27 by the Board of Public Works for paving Frank St., at an estimated cost of $13,000.

Morganfield, Ky.—The citizens of Union County contemplate voting on the question of issuing $450,000 in bonds, the proceeds of which will be used for improving roads.

Richmond, Ky.—The City Council will soon award the contract for paving Main St. with brick.

Barnesville, Ohio—Bids will be received until May 24 by F. W. Hilles, Village Clk., for paving South Gardner St.

Chagrin Falls, Ohio—Bids will be received until 8 p.m., June 14, by H. B. Pubsley, Clk., for the sale of $8830 in bonds, the proceeds of which will be used for improving Washington St.

Cincinnati, Ohio—(Official)—See item under "Bridges."

Cincinnati, Ohio—(Official)—Bids will be received until noon, June 11, by the Board of Commissioners of Hamilton County for repairing 25,300 ft. of the Batavia pike in Anderson Township. Albert Reinhardt is Clk. of Bd.

Cincinnati, Ohio—(Official)—Bids will be received until noon, June 11, by the Commissioners of Hamilton County, for improving the Werk Rd. from the Bridgetown Rd. to South Ave. Albert Reinhardt is Clk. of Bd.

✚**Jeromesville, Ohio**—(Official)—The contract for grading, draining and paving Main St. with brick has been awarded to HERRING & SON, Mansfield. Noted Apr. 15.

Rocky River, Ohio—Bids will be received until noon, June 1, by Frank Mitchell, Clk., for constructing concrete sidewalks on the North Ridge Rd.

✚**Sandusky, Ohio**—The contract for paving Columbus Ave. with brick has been awarded to EARL WALTERS, at $27,000.

Savannah, Ohio—Bids will be received until noon, June 1, by the Board of Trustees of Clearcreek Township to improve and macadamize five miles of road in Clearcreek Township.

Swanton, Ohio—Bids will be received until noon, May 24, by W. B. Elwell, Clk., for paving Chestnut St. Noted May 6.

Elkhart, Ind.—(Official)—We are advised that bids will be received about June 1 for paving Third, Jefferson, Sherman and Fifth St. and Indiana Ave. Noted May 6.

✚**Rushville, Ind.**—The contract for paving East Second St. has been awarded to the E. V. BERGEN CO., Franklin, Ind.

✚**Metamora, Ill.**—A contract for paving four blocks around the public square has been awarded to A. D. THOMPSON, Peoria, Ill., at $15,258.

✚**Mt. Carmel, Ill.**—(Official)—The contract for constructing a gravel road has been awarded to F. W. LENAHAN, Vincennes, at $63,000.

Beloit, Wis.—The city has issued $48,000 in bonds, the proceeds of which will be used for paving a number of streets.

De Pere, Wis.—The Common Council has voted in favor of paving George St. from Huron to Ridge St. with brick, concrete or asphalt. J. Stecker is Mayor.

✚**Marshfield, Wis.**—The contract for paving Central Ave. with brick has been awarded to the PETERSON CONSTRUCTION CO., Kenosha, at $66,399.

Merrill, Wis.—The City Council plans to pave Main and West St. with vitrified brick.

New London, Wis.—(Official)—Bids will be received until June 1 by J. C. Thompson, City Clk., for constructing approximately 1½ miles of road.

✚**Prairie du Chien, Wis.**—The contract for paving a portion of Bluff St. has been awarded to EDWARD L. BARTLETT, Watertown, at $22,848.

✚**Sheboygan, Wis.**—Contracts have been awarded for paving Erie St. to JOHN BRAUN, Sheboygan, at $22,850; North Second St. to GEORGE H. STANCHFIELD, Fond du Lac, at $15,086; South Ninth St. and Indiana Ave. to the MURPHY CONSTRUCTION CO., Manitowoc, at $11,357 and $12,150 respectively.

Mason City, Iowa—Bids will be received until 2 p.m., June 8, by George E. Frost, Audr. of Cerro Gordo County, for grading Sections A, B, C, D, E and F of the Mason City-Plymouth Rd.

Blue Earth, Minn.—The City Council plans to pave Main and Sixth St. with creosoted blocks.

✚**Duluth, Minn.**—The contract for paving Minnesota Ave. from 12th to 28th St. has been awarded to the S. R. OKES CONSTRUCTION CO., at $52,897.

Fairmont, Minn.—The city plans to issue $60,000 in bonds, the proceeds of which will be used for paving various streets.

Hutchinson, Kan.—Bids will be received until noon, June 10, by G. W. Lee, Clk. of Reno County, for paving five miles with sand and clay.

Manning, N. D.—Bids will be received until 2 p.m., June 8, by the Commissioners of Dunn County for grading various roads.

✚**Fayette, Mo.**—The contract for paving Church St. has been awarded to JOHN A. STEWART, Columbia.

✚**Kansas City, Mo.**—The contract for constructing concrete pavement on Third St. from Broadway to Wyandotte Ave. has been awarded to WILLIAM HARTE, at $5169.

✚**Belton, Tex.**—A contract for constructing gravel roads has been awarded to W. T. MONTGOMERY, San Antonio, at $15,000.

Clarksville, Tex.—According to press reports bids will be received until May 31 for constructing a number of new streets. E. F. Peterson, Muskogee, Okla., is Engr.

Commerce, Tex.—At a recent election the citizens voted in favor of issuing $32,500 in bonds, the proceeds of which will be used for paving a number of streets.

✚**Ennis, Tex.**—A contract for laying 26,000 sq.yd. of brick pavement has been awarded to the KAW PAVING CO., Topeka, Kan., at $57,940.

Jourdanton, Tex.—Press reports state that at a recent election the citizens voted in favor of issuing $10,000 in bonds, the proceeds of which will be used for street paving.

Kountze, Tex.—Bids will be received until 11 a.m., May 24, by the Commissioners' Court of Hardin County for the sale of $150,000 in bonds, the proceeds of which will be used for road improvements in District No. 1. Noted Feb. 18.

Yoakum, Tex.—At the election held May 5 the citizens of Lavaca County voted in favor of issuing $50,000 in bonds, the proceds of which will be used for improvements in Road District No. 1. Noted Apr. 29.

Lewiston, Idaho—An election will be held June 14 to vote on the question of issuing $40,000 in bonds, the proceeds of which will be used for improving various streets.

St. Johns, Ariz.—The $125,000 of good roads bonds which was issued recently by Apache County have been sold and the proposed improvements will soon be started.

✚**Olympia, Wash.**—(Official)—Contracts have been awarded for surfacing the following roads: Pacific Highway from Blaine south in Whatcom County, to WORTHEN & SATTERTHWAITE, Lynden, Wash., at $6444; Pacific Highway, from Kalama southerly in Cowlitz County, to PORTER & CONLEY, INC., Portland, Ore., at $11,576; Pacific Highway, from Carrollton northerly in Cowlitz County, to MONTAGUE-O'REILLY CO., Portland, Ore., $5060. Noted Apr. 22.

✚**Bakersfield, Calif.**—(Official)—A contract for grading and constructing culverts on Division 9, Section 3, of the Bakersfield-Glenville Rd. has been awarded to F. H. JAMESON, Bakersfield, at $6252. Other bids were: W. J. Cahill, $9212 and Castro & Blaisdell, $6460. Noted Apr. 29.

Burlingame, Calif.—Bids will soon be received by the City Trustees for paving Cypress Ave. and portions of Occidental and Barrichlet Ave. The estimated cost is $13,544.

Eagle Rock, Calif.—The City Trustees have decided to pave Central Ave. with macadam. The work will cost approximately $30,000.

✚**East San Diego, Calif.**—The C. L. HYDE CONSTRUCTING CO., 233 Spreckles Bldg., San Diego, has been awarded the contract at $16,204 for improving Chamoune Ave.

Hanford, Calif.—The citizens of Kings County voted in favor of issuing $672,500 in bonds, the proceeds of which will be used for constructing 108 miles of highways.

✚**Los Angeles, Calif.**—The contract for improving Kohler St. has been awarded to BENJAMIN F. FORD and FRED H. STOUT, at $11,031.

✚Los Angeles, Calif.—The contract for improving Dalton Ave. from St. Barbara to Vernon Ave. has been awarded to BRYANT & AUSTIN, at $11,276.

✚Pasadena, Calif.—The contract for improving Terrace and Elevado Drive has been awarded to ANDREW HOLLOWAY, at $12,983.

✚San Bernardino, Calif.—A contract for constructing 3.523 miles of concrete highway on Archibald Ave. has been awarded to L. FLEMING & SON, 105 North Park Ave., at $16,004.

✚San Mateo, Calif.—A contract for paving a number of streets has been awarded to the McGILLIVRAY CONSTRUCTION CO., Sacramento, at $71,032.

Santa Ana, Calif.—Bids will be received until 2 p.m., May 25, by the Board of Supervisors for improving the El Toro County Rd.

Sawtelle, Calif.—The City Trustees have decided to pave the Santa Monica Blvd. The estimated cost of the work is $90,000.

Wallaceburg, Ont.—The Town Council plans to lay concrete sidewalks on a number of streets.

Wingham, Ont.—The City Council plans to lay granolithic sidewalks on John, Catherine and William St. John F. Groves is Clk.

INDUSTRIAL WORKS

Portland, Maine—The Deering Ice Cream Co. contemplates the construction of a 100x100-ft. concrete factory at D and St. John St.

✚Worcester, Mass.—E. J. CROSS CO., has received the contract for the construction of a three-story, 28x60-ft. addition to the plant of the Mills Woven Cartridge Belt Co., 70 Webster St. It will be of brick and mill construction, and will cost $12,000.

✚Worcester, Mass.—The contract for the construction of a one-story, 65x165-ft., brick warehouse, and a two-story, 20x 36-ft., brick stable for the National Biscuit Co., on Grafton St., has been awarded to ISRAEL GOLDMAN.

Worcester, Mass.—The Wyman & Gordon Co. contemplates extensive additions to its plant. Harry G. Stoddard is Gen. Mgr.

✚Worcester, Mass.—Armour & Co., Union Stock Yards, Chicago, Ill., has awarded the contract for the construction of a four-story, 73x110-ft., brick and concrete, cold-storage warehouse and a 30x45-ft. engine room, to the BLOME-SINEK CO., 127 North Clark St., Chicago, Ill. Noted Apr. 8.

✚Woonsocket, R. I.—The Lanton Spinning Co., has awarded the contract to W. O. PURRINGTON, Providence, R. I., for the construction of a three-story, 65x100 ft. and a one-story, 10x60-ft. addition to its factory. William A. Halliwell is Agt.

✚Ansonia, Conn.—The ABERTHAW CONSTRUCTION CO., 8 Beacon St., Boston, Mass., has been awarded the contract for the construction of a one-story, 60x200-ft., brick and steel addition to the plant of the American Brass Co.

Bridgeport, Conn.—The Locomobile Co. of America will build a $60,000 addition to its plant.

Greenwich, Conn.—Plans have been completed by F. G. C. Smith, Arch., Smith Bldg., for the construction of a one-story, 26x180-ft. garage for J. R. Johnson, to cost $15,000.

✚Hartford, Conn.—The Billings & Spencer Co. has awarded the contract to the J. H. GROZIER CO. for alterations and improvements to its plant, to cost over $100,000.

Hartford, Conn.—(Official)—Berenson & Goodrich, Arch., Pilgrade Bldg., informs us that all bids were rejected for the construction of a three-story, 30x96-ft. garage building for E. Gross & Co., 95 Commerce St. It has not been decided when new bids will be received. Noted May 6.

✚Hartford, Conn.—The Hartford Machine Screw Co. has awarded the contract for the construction of a five-story, 50x 206-ft. factory to ROBERT PORTEUS. It will cost about $75,000. Noted Apr. 29.

✚Meriden, Conn.—LEWIS A. MILLER has been awarded the contract for the construction of a laboratory for the Pan-American Reduction Co.

✚Stamford, Conn.—The O'CONNOR CONCRETE CONSTRUCTION CO., 1 Bank St., has been awarded the contract for the construction of a one-story factory on Fairfield Ave. for Baer Bros., 700 Canal St. Henry Marvin, 10 Burlington Arcade, is Arch.

Waterbury, Conn.—The Waterbury Tool Co. has purchased a site on Watertown St., and contemplates the construction of a factory.

Buffalo, N. Y.—Bids will soon be received for the construction of a one-story, 146x200-ft. garage for S. M. Flickinger, 79 Perry St., at an estimated cost of $15,000. Robert J. Reidpath & Son, Builders Exchange, is Arch.

✚Buffalo, N. Y.—(Official)—The TURNER CONSTRUCTION CO., 11 Broadway, New York, N. Y., has been awarded the contract for the construction of a four-story, 100x400-ft., reinforced-concrete, terra cotta and brick service station and salesroom building at Main and Jewett St., for the Ford Motor Car Co. A. Kahn and E. Wilby, 58 West Lafayette Bldg., Detroit, Mich., are Arch. Noted May 6.

✚Elmira, N. Y.—The Morrow Mfg. Co. has awarded the contract to the COMPTON REALTY CO., for the construction of a 179x450-ft. addition to its plant.

Gloversville, N. Y.—The Wood & Hyde Co. will build a two-story, 65x67-ft. addition to its plant, with a two-story, 25x31-ft. wing.

New York, N. Y.—(Borough of Bronx)—Bids have been received by the Ames Transfer Co., Charles B. Ames, Pres., Kingsbridge Ave., near 236th St., for the construction of a six-story, 56x100-ft., garage and warehouse, estimated to cost $75,000. John G. Kleihenz, 1839 East 12th St. (Borough of Brooklyn), is Arch.

Poughkeepsie, N. Y.—Smith Bros. plans the construction of a $100,000 factory on North Hamilton St. It will also make improvements to its present plant to cost $75,000.

Syracuse, N. Y.—The Syracuse Cold Storage Co. will build a seven-story, 92x116 ft., reinforced-concrete warehouse to cost $125,000. W. C. Jarvis, Indianapolis, Ind., is Arch. J. Morrison Colwell is Pres.

✚Camden, N. J.—The Victor Talking Machine Co. has awarded the contract for the construction of a factory to IRWIN & LEIGHTON. Ballinger & Perrot, 1328 Broadway, New York, N. Y., is Arch. Noted Feb. 4.

Camden, N. J.—The F. W. Taubel Co., Inc., will build a 120x120-ft. factory at Eighth and Spruce St.

Elizabeth, N. J.—The Leipzig Aniline Co., Leipzig, Germany, capitalized at $200,000, will construct a plant. John Fulton, Jr., is interested.

Hightstown, N. J.—The Hightstown Symrna Rug Co. will build a three-story, 50x100-ft. addition to its factory, to cost approximately $100,000.

✚Jersey City, N. J.—The MICHAEL T. CONNOLLY CONTRACTING CO., at $94,682, has been awarded the contract for the construction of a four-story packing-house on Henderson St., for the Nagle Packing Co. Noted July 2 and Jan. 28.

✚Newark, N. J.—James A. Banister Co., has awarded the contract for the construction of a factory at Orange St. and Morris Canal, to FRANK HILL SMITH, at $125,529.

✚Perth Amboy, N. J.—(Official)—F. G. Ring, Arch., 280 North Broad St., Elizabeth, N. J., advises us that the contract for the construction of a four-story, 35x76-ft., steel-frame and brick building for the Chesebrough Mfg. Co., has been awarded to MEAGHER & SMITH, Perth Amboy, N. J., at $23,000. Noted May 6.

Phillipsburg, N. J.—Reynolds & Tirrell has purchased a site on Warren St., and contemplates the construction of a 90x130-ft., brick, silk mill.

Plainfield, N. J.—(Official)—The Sauer Motor Co. advises us that the construction of a building is only under consideration. Noted May 6.

West Hoboken, N. J.—Bids are being received by August Kleinke, Smith and Clinton Ave., for the construction of a one-story garage. J. D. Lugosch, Union Hill, N. J., is Arch. The estimated cost is $10,000.

✚Carbondale, Penn.—The Delaware & Hudson Co. has awarded the contract to PORTER BROS., Wilkes-Barre, Penn., for the construction of a $100,000 cold-storage plant.

✚Eddystone, Penn.—The Baldwin Locomotive Works has awarded the contract to SEEDS & DERHAM, for the construction of a one-story, 900x1200-ft., concrete and hollow tile factory to cost about $500,000.

✚Harrisburg, Penn.—(Official)—Day & Zimmerman, Arch., 611 Chestnut St., Philadelphia, Penn., advises us that the contract for the construction of six one- and two-story factories for the W. O. Hickok Mfg. Co., has been awarded to F. A. HAVENS & CO., 845 North 19th St., Philadelphia, Penn., at approximately $70,000. Noted May 6.

Hazleton, Penn.—The Duplan Silk Co. will build a two-story, 90x185-ft. factory. Ballinger & Perrot, 1211 Arch St., Philadelphia, Penn., is Arch.

Norristown, Penn.—The Ballard Knitting Co. is reported to have purchased a site here, and plans to construct a four-story factory to contain 30,000 sq.ft. of floor space.

✚Philadelphia, Penn.—The Edwin J. Schoettle Co., 237 North Sixth St., has awarded the contract for the construction of an eight-story, 80x100-ft., reinforced-concrete and brick factory at 11th and Brandywine St., to the TURNER CONCRETE STEEL CO., 1314 Arch St. Noted Feb. 4.

Philadelphia, Penn.—The Pennsylvania Laundry Co., 33rd St., will build a one-story, 46x170-ft. garage and stable, to cost approximately $25,000. William Lowenthal, Arch., 1208 Chestnut St., is receiving bids.

Philadelphia, Penn.—The Publicker-Ward Distilling Co., Water St. and Snyder Ave., will build a one-story and a four-story addition to its plant. Peuckert & Wunder, 310 Chestnut St., is Arch. The estimated cost is $20,000.

Wilmerding, Penn.—The Westinghouse Air Brake Co. has plans completed for additions to its plant to include two 100x 500-ft. buildings, one 65x200-ft. building, and an 80x150-ft. building.

✚Newport, Del.—The Krebs Pigment & Chemical Co. has awarded the contract to the TURNER CONSTRUCTION CO., 11 Broadway, New York, N. Y., for the construction of its three-story, 103x223-ft., brick and reinforced-concrete plant. Noted May 6.

✚Baltimore, Md.—The contract for the construction of a 110x119-ft., brick garage at 2502 Eutaw Ave., for Isaac E. Emerson, has been awarded to WILLIAM H. PARKER, 1429 East Baltimore St. Joseph Evans Sperry, 409 Calvert Bldg., is Arch.

✚Baltimore, Md.—The contract has been awarded by the Canton Co., Commerce and Water St., to BURNS & RUSSELL, 1103 American Bldg., for the construction of a four-story, 90x100-ft. store-house, a 35x150-ft. packing house, and a 26x 58-ft. pump and boiler house, to cost $55,000. Noted May 6.

Baltimore, Md.—The Shawinigan Electro Products Co. has been organized with a capital of $250,000, and will build a plant. Charles E. F. Clarke, Pres. of the Pennsylvania Water & Power Co., United States Fidelity Guaranty Bldg., is interested.

Hagerstown, Md.—The Pangborn Corporation will build a two-story, 100x190-ft. factory, to cost $50,000. Peuckert & Wunder, 310 Chestnut St., Philadelphia, Penn., is Arch.

Huntington, W. Va.—The Huntington Alloy Co. has been incorporated and will build a $25,000 plant.

Quitman, Ga.—The Thompson Mill, recently destroyed by fire at a loss of $40,000, will be rebuilt.

Georgiana, Ala.—W. R. McGowin and J. R. Bennett will build a three-story feed plant, to cost $15,000. The contract will soon be awarded.

Ridgedale, Tenn.—The Standard Processing Co. will build a $10,000 addition to its mill.

Cincinnati, Ohio—Joseph Rawson and Edward Rawson, 3737 Clifton Ave., will build a three-story, 50x150-ft. garage and salesroom, estimated to cost $35,000. Zettle & Rapp, 607 Johnston Bldg., is Arch.

Cincinnati, Ohio—The Ray K. Barlow Co. will erect a four-story, $50,000 building at Canal and Rose St. Harry Hake, 802 Providence Bank Bldg., is Arch.

Cleveland, Ohio—W. J. Carter, Engr., Illuminating Bldg., has prepared plans for the construction of a three-story, 50x90-ft. factory for the Van Dorn & Dutton Co., 2714 East 79th St.

Cleveland, Ohio—The F. B. Stearns Co. will construct a four-story, 70x250-ft. addition to its plant at Euclid Ave. and Lakeview Rd.

Cleveland, Ohio—The A. Teachout Co. is having plans prepared for rebuilding its plant at 11,722 Euclid Ave., partially destroyed by fire Apr. 23, at a loss of $30,000.

✚Columbus, Ohio—The contract for the construction of a factory at Third Ave. and Pennsylvania R.R., for the Solar Products Co., has been awarded to the SAMUEL AUSTIN & SON CO., 14,230 Euclid Ave., Cleveland. Estimated cost, $38,-00. Noted Apr. 22.

✚Dayton, Ohio—A. BUTLER & SONS CO., Toledo, Ohio, has been awarded the contract for the construction of the Delco plant.

✚Urbana, Ohio—The contract for the construction of a 160x75-ft. factory for the Johnson Mfg. Co., has been awarded to J. A. POSS, Springfield, Ohio.

Anderson, Ind.—The Plost Post Co. will rebuild its plant which was recently destroyed by fire.

✚Evansville, Ind.—The Blount Plow Works, Walter E. Blount, Gen. Mgr., has awarded the contract to WILLIAM M. TORRANCE, for the construction of its plant.

Muskegon, Mich.—The Cast Iron Plumbing & Steam Goods Mfg. Co. plans the construction of a plant on Western Ave., to cost $12,000.

Bloomington, Ill.—George Gildner will build a three-story, 80x100-ft. garage to cost about $30,000. George B. Rheinfrank, 601 Gardner Bldg., Toledo, Ohio, is Arch.

Chicago, Ill.—The Chicago Screw Co., 1024 South Homan Ave., will build a three-story, brick addition to its plant to cost $35,000. Postle & Fischer, 140 South Dearborn St., is Arch.

Chicago, Ill.—The J. F. Jelke Co., 2616 West Polk St., will build a $100,000 addition to its plant. D. H. Burnham Co., 80 East Jackson St., is Arch.

Peoria, Ill.—The Cappel-Girard Co. will build a $30,000 structure at Harrison and Washington St.

✚Peoria, Ill.—V. JOBST & SONS has been awarded the contract for the construction of a six-story, 100x166-ft., reinforced-concrete building at Adams and Oak St., for the Federal Warehouse Co., to cost about $200,000. Reeves & Baillie is Arch.

Milwaukee, Wis.—The Ford Automobile Co., Detroit, Mich., will build a seven-story, 160x320-ft., plant near the Northwestern R.R., estimated to cost $250,000. Noted May 6.

✚Duluth, Minn.—(Official)—W. T. Bray, Arch., advises us that the contract for the construction of a three-story, 50x115-ft., reinforced-concrete garage for W. M. Brindler & Co., Lonsdale Bldg., has been awarded to GEORGE H. LOUNSBERRY, Lonsdale Bldg., at $18,750. Noted Apr. 29 and May 6.

Mapleton, Minn.—Borchert Bros. will build a two-story, 44x120-ft. garage to cost $18,000. H. C. Gerbach, I. O. O. F. Bldg., Mankato, Minn., is Arch.

✚Minneapolis, Minn.—(Official)—Bertrand & Chamberlin, Arch., Northwest Bank Bldg., advises us that the contract has been awarded to RICHARD BILLINGSLEY, Kasota Bldg., at $119,995, for the construction of a five-story, 100x209 ft., reinforced-concrete warehouse for the W. L. Harris Realty Co. Noted Apr. 29 and May 6.

St. Paul, Minn.—John Morrell Co., Sioux Falls, S. D., will build a two-story, 50x100-ft., brick warehouse at Sixth and Pine St. Peter J. Linhoff, Arch., Germania Life Bldg., is receiving bids.

Omaha, Neb. — The Farmers Coöperative Creamery Co., Omaha, Neb., will construct a warehouse, to cost $35,000.

St. Louis, Mo.—The Steinlage Sanitary Milk Co., Florissant Ave., will build a 50x110-ft., reinforced-concrete plant, to cost $50,000. Work will soon begin.

Pine Bluff, Ark.—The Standard Brake Shoe & Foundry Co., recently organized, contemplates the construction of a $40,-000 plant.

Spokane, Wash.—The Carstens Packing Co. announces that it will make alterations and improvements to its plant at an estimated cost of $40,000.

Albany, Ore.—(Official)—C. O. Anderson advises us that he will not build a new plant, but will remodel the old one. Noted Apr. 29.

Klamath Falls, Ore.—The Klamath Falls Meat Co. will build a concrete packing plant to cost $25,000.

Portland, Ore.—The Doernbecker Furniture Mfg. Co. will build a six-story, 100x150-ft. warehouse at East 28th St. and Sullivan's Gulch, to cost $50,000. Jacobberger & Smith is Arch.

Portland, Ore.—The D. P. Thompson Estate will build a three-story, 100x100-ft. warehouse, brick and mill construction, at Irving and 15th St., to cost about $30,000. Root & Kerr is Arch.

Portland, Ore.—Work will soon be started on the construction of a two-story, 56x98-ft., and a one-story, 125x200-ft. building for the Western Sash & Door Co.

Roseburg, Ore.—The Kendall Bros. will build a $500,000 plant. R. S. Jobson is Arch.

✚Salem, Ore.—The Spaulding Lumber Co. has awarded the contract for the remodeling and rebuilding of its lumber mill to L. C. EASTMAN, Silverton, Ore.

Avon, Calif.—(Martinez post office)—(Official)—The Associated Oil Co., Sharon Bldg., San Francisco, Calif., advises us that construction work will begin immediately on additional stills and tanks at its plant. Arthur F. L. Bell is Ch. Engr. Noted Apr. 22.

Ceres, Calif.—The Dairymen's Associated Condensed Milk Co. will build a condensary to cost about $50,000. V. D. Whitmore is interested.

Corning, Calif.—H. J. Heinz plans to construct a factory for olive packing.

Kingsburg, Calif.—The Kingsburg Co-Operative Cannery will construct a one-story, 85x320-ft., frame cannery building.

Woodland, Calif.—A condensary will be constructed for the Dairymen's Associated Condensed Milk Co., to cost about $50,-000. J. L. Harlan is interested.

Chatham, Ont.—The Dominion Sugar Co., Wallaceburg, Ont., has purchased a site, and will build a sugar refinery to cost $1,000,000.

FEDERAL GOVERNMENT WORK

The following amounts have been available for certain works of river and harbor improvement under authority of the river and harbor act approved Mar. 4, 1915, appropriating $30,000,000, for preservation and maintenance of existing river and harbor works and for the prosecution of projects heretofore authorized: St. Croix River, Maine, $50,000; Portland Harbor, Maine, $105,000; Boston Harbor, Mass., $135,769; New Bedford and Fairhaven Harbors, Mass., $56,610; Harbor at Fall River, Mass., $12,000; Harbor of Refuge at Point Judith, R. I., $75,000; Pawcatuck River, R. I. and Conn., $1000; Thames River, Conn., $14,500; Connecticut River below Hartford, Conn., $30,000; Branford Harbor, Conn., $4000; Housatonic River, Conn., $6000.

Port Chester Harbor, N. Y., $10,000; Mamaroneck Harbor, N. Y., $14,800; East Chester Creek, N. Y., $5000; Bronx River, N. Y., $100,000; Harlem River, N. Y., $75,000; Plattsburg Harbor, N. Y., $2000; Narrows of Lake Champlain, N. Y. and Vt., $3000; Hudson River, N. Y., $877,780. (In addition to this $877,780, there has been allotted from the act of Oct. 2, 1914, the additional sum of $622,220, thus making available for Hudson River a total of $1,500,000.) Rondout Harbor, N. Y., $3000; Tarrytown Harbor, N. Y., $3000; Channel in Gowanus Bay, N. Y., Bay Ridge and Red Hook Channels, $125,000; Newtown Creek, N. Y., $15,000; Great South Bay, N. Y., $5000; Browns Creek, N. Y., $2000; Sheepshead Bay, N. Y., $5000; Huntington Harbor, N. Y., $5000; Arthur Kill, or Staten Island Sound, N. Y. and N. J., $400,000; Passaic River, N. J., $100,000; Shrewsbury River, N. J., $18,000; Raritan Bay, N. J., $20,000; Keyport Harbor, Matawan Creek, Raritan, South, and Elizabeth Rivers, Shoal Harbor and Compton Creek, and Cheesequake Creek, N. J., $24,00; Woodbridge Creek, N. J., $6000; Delaware River, Penn. and N. J., above Lalor St., Trenton, N. J., $6612; Delaware River, Penn. and N. J., from Philadelphia to the sea, $1,000,000; Wilmington Harbor, Del., $45,000; Absecon Inlet, N. J., $60,000; Raccoon Creek, N. J., $5000; Appoquinimink, Murderkill and Mispillion Rivers, Del., $15,000; Inland waterway between Rehoboth Bay and Delaware Bay, Del., $41,000; Broadkill River, Del., $5000; Tuckerton Creek, N. J., $5000; Inland waterway, Chincoteague Bay, Va., to Delaware Bay, Del., $1000; Elk and Little Elk Rivers, Md., $5000; Harbors at Rockhall, Queenstown, Claiborne, and Cambridge, and Chester, Choptank, Warwick, Pocomoke, La Trappe, Wicomico, and Manokin Rivers, and Tyaskin Creek, Md., $35,800; Corsica River, Md., $4800; Potomac River at Washington, D. C., $20,000.

York, Mattaponi and Pamunkey Rivers, Va., $5000; Rappahannock River, Va., $8000; James River, Va., $50,000; Pagan River, Va., $2000; Appomattox River, Va., $5000; waterway from Norfolk, Va., to sounds of North Carolina, $5000; waterway from Norfolk, Va., to Beaufort Inlet, N. C., $400,000; Scuppernong River, N. C., $2900; Shallowbag Bay, N. C., $2000; Fishing Creek, N. C., $1000; Pamlico and Tar Rivers, N. C., $35,800; Bay River, N. C., $1900; Contentnia Creek, N. C., $1000; Smiths Creek, N. C., $1400; Neuse and Trent Rivers, N. C., $22,500; waterway from Pamlico Sound to Beaufort Inlet, N. C., $9000; Beaufort Harbor, N. C., $17,000; waterway connecting Core Sound and Beaufort Harbor, N. C., $2000; harbor at Morehead City, N. C., $3800; New River, N. C., including inland waterways between Beaufort Harbor and New River and between New River and Swansboro, $37,3000; Cape Fear River above Wilmington, N. C. (locks and dams), $173,000; Cape Fear River at and below Wilmington, N. C., $150,000; Shallotte River, N. C., $1100; Waccamaw River, N. C. and S. C., $40,000; Winyah Bay, S. C., $70,000; Santee, Wateree and Congaree Rivers, S. C., $15,000; Charleston Harbor, S. C. $5150; Savannah Harbor, Ga. (26-ft. project), $235,000; Savannah River below Augusta, Ga., $15,000; waterway from Savannah, Ga., to Beaufort, S. C., $5000; Sapelo Harbor, Ga., $2000; Altamaha, Oconee and Ocmulgee Rivers, Ga., $40,000; Fancy Bluff Creek, Ga., $2000; St. Mary's River, Ga. and Fla., $3000; channel between St. John's River and Cumberland Sound, Ga. and Fla., $2500; St. John's River, Fla., Jacksonville to the ocean, $350,000; Jacksonville to Palatka, $10,000, Palatka to Lake Harney, $10,000; Indian River, Fla., $10,000; Caloosahatchee River, Fla., $5000; Manatee River, Fla., $35,000; St. Petersburg Harbor, Fla., $1500; Hillsboro Bay, Fla., $120,000; channel from Clearwater Harbor to Tampa Bay, Fla., $3000; Anclote River, Fla., $5000; removing the water hyacinth in the State of Florida, $5000; Carrabelle Bar and Harbor, Fla., $20,000; Apalachicola Bay, Fla., $25,000; Apalachicola River, Fla., $30,000; Flint River, Ga., $40,000; Chattahoochee River, Ga. and Ala., $75,000; St. Andrews Bay, Fla., $25,000; Choctawhatchee River, Fla. and Ala., $25,000; Holmes River, Fla., $5000; Narrows in Santa Rosa Sound, Fla., $5000; Blackwater River, Fla., $5000; Harbor at Pensacola, Fla., $25,000; Alabama River, Ala., $75,000; Goosa River, Ga. and Ala.: Lock in Dam 4 and Dam 5, $56,000, Rome, Ga., to Lock 4, Ala., $50,000; Mobile Harbor, Ala., $107,000; Bomile Bar, Ala., $10,000; Tombigbee River, Ala.: mouth to Demopolis, Ala., $42,500, Demopolis, Ala., to Walkers Bridge, Miss., $6300; Pascagoula River, Miss..

$10,300; Gulfport Harbor and Ship Island Pass, Miss., $62,500; Wolf and Jordan Rivers, Miss., $6250; Pearl River below Rockport, Miss., $11,000; Southwest Pass, Mississippi River, $400,000; South Pass Channel, Mississippi River, $50,000; Bayou Plaquemine, La., $20,000; Bayou Teche, La., $10,000; waterway, Franklin to Mermentau, La., $5000; waterway, Mermentau River to Sabine River, La. and Tex., $5000; Calcasieu River, La., $3000; Bogue Falia, Bayou Manchac, and Amite, Chefuncte and Tickfaw Rivers, La., $5000; Bayou Vermilion and Mermentau River, La., including Bayou Plaquemine Brule, $8000; removal of water hyacinth in Mississippi, Louisiana and Texas, $20,000; Bayou Terrebonne, La., $15,000; Atchafalaya River, La., $20,000; Bayou Grossetete, La., $3000.

Galveston Channel, Tex., $100,000; channel from Galveston Harbor to Texas City, Tex., $50,000; channel to Port Bolivar, Tex., $40,000; Houston Ship Channel, Tex., $200,000; West Galveston Bay and mouths of adjacent streams, Tex., $20,000; inland waterway on coast of Texas: West Galveston Bay-Brazos River Section, $15,000, Brazos River-Matagorda Bay Section, $30,000, Aransas Pass-Pass Cavallo Section, $30,000, Guadalupe River Section, $15,000; Mouth of Brazos River, Tex., $30,000; Brazos River, Tex.: Velasco to Old Washington, $10,000, Old Washington to Waco, $200,000; Port Aransas, Tex., $180,000; channel from Aransas Pass to Corpus Christi, Tex., $15,000; Sabine Pass and Port Arthur Canal, Tex., $100,000; Trinity River, Tex.: Open-channel work, $25,000, completion of instrumental survey, $12,000; Cypress Bayou, Tex. and La., $5000; Red River above Fulton, Ark., $40,000; Ouachita River, Ark. and La.: Locks and dams, $111,000, open-channel work to Camden, $25,000; Bayous Bartholomew, Macon, D'Arbonne, and Corney, and Boeuf and Tensas Rivers, Ia., $4000; Yazoo River and tributaries, Miss., $15,000; Big Sunflower River, Miss., $104,000; Arkansas River, Ark., $193,350; White River, Ark., $14,000; Cache River, Ark., $3000; Black and Current Rivers, Ark. and Mo., $24,000; St. Francis and L'Anguille Rivers, and Blackfish Bayou, Ark., $8000.

Mississippi River: Between mouths of Ohio and Missouri Rivers, $300,000, mouth of Missouri River to Minneapolis, Minn., $1,000,000, St. Paul to Minneapolis, Minn., $65,000, Brainerd to Grand Rapids, Minn., $6000, Warroad Harbor and River, Minn., $2000; Zippel Bay, Lake of the Woods, Minn., $1000; Missouri River: Kansas City to mouth, $1,000,000, Kansas City to Sioux City, $50,000, Sioux City to Fort Benton, $50,000; Osage, Mo., $7500; Gasconade River, Mo., $15,000.

Cumberland River below Nashville, Tenn., $378,000; Tennessee River, Tenn., Ala., and Ky.: Above Chattanooga, $150,000, between Florence and Riverton, Ala., $100,000, below Riverton, $251,000; French Broad River, Tenn., $30,000; Monongahela River, Penn., $211,200; Pittsburgh Harbor, Penn., $7500; Ohio River: Open-channel work, $310,000, locks and dams, $3,330,000.

Ashland Harbor, Wis., $15,000; Ontonagon Harbor, Mich., $8000; Harbor of Refuge, Keweenaw Point, Mich., $50,000; Harbor of Refuge, Grand Marais, Mich., $10,000; Menominee Harbor and River, Mich. and Wis., $7500; Two Rivers Harbor, Wis., $12,000; Port Washington Harbor, Wis., $5000; Milwaukee Harbor, Wis., $15,000; Racine Harbor, Wis., $150,000; Kenosha Harbor, Wis., $25,000; Waukegan Harbor, Ill., $10,000; Fox River, Wis., $20,000; Chicago Harbor, Ill., $500,000; Chicago River, Ill., $20,000; Calumet Harbor, Ill., $18,000; Calumet River, Ill. and Ind., $22,000; Indiana Harbor, Ind., $150,000; Illinois River, Ill., $50,000; St. Joseph Harbor, Mich., $15,000; South Haven Harbor, Mich., $8300; Saugatuck Harbor, Mich., $3500; Arcadia Harbor, Mich., $3000; Holland Harbor, Mich., $3600; Grand Haven Harbor, Mich., $30,000; Grand River, Mich., $4200; Muskegon Harbor, Mich., $9500; Ludington Harbor, Mich., $9300; Frankfort Harbor, Mich., $3400; Charlevoix Harbor, Mich., $2700; Ship channel connecting waters of Great Lakes between Chicago, Duluth and Buffalo, $20,000; Black River, Mich., at Port Huron, $5000; Alpena Harbor, Mich., $5000; Harbor of Refuge, Harbor Beach, Mich., $200,000; St. Mary's River, Mich. (Fourth lock), $1,006,000; Toledo Harbor, Ohio, $35,000; Sandusky Harbor, Ohio, $5000; Huron Harbor, Ohio, $3000; Cleveland Harbor, Ohio, $92,000; Conneaut Harbor, Ohio, $195,000.

Erie Harbor, Penn., $30,000; Buffalo Harbor, N. Y., $187,375; Charlotte Harbor, N. Y., $12,000; Lake Erie entrance to Black Rock Harbor and Erie Basin, N. Y., $10,000; Oswego Harbor, N. Y., $100,000.

Los Angeles Harbor, Calif., $75,000; San Francisco Harbor, Calif., $12,000; Oakland Harbor, Calif., $80,000; San Pablo Bay, Calif., $15,000; Humboldt Harbor and Bay, Calif., $300,000; Petaluma Creek and Napa River, Calif., $15,000; Sacramento and Feather Rivers, Calif., $60,000; Coquille River, Ore., $76,000; Coos Bay, Ore., $70,000; Coos River, Ore., $3000; Siuslaw River, Ore., $117,500; Yaquina River, Ore., $3000; Nehalem Bay, Ore., $116,175; Snake River, Ore., Wash. and Idaho, $20,000; Upper Columbia River, above Celilo Falls to mouth of Snake River, Ore. and Wash., $37,000; mouth of Columbia River, Ore. and Wash., $1,500,000; Columbia and Lower Willamette Rivers, below Portland, Ore., $450,000; Willamette and Yamhill Rivers, above Portland, Ore., $25,000; Cowlitz and Lewis Rivers, Wash., $15,000; Clatskanie River, Ore., $1000; Grays Harbor and Bar, Wash., $460,000; waterway connecting Port Townsend Bay and Oak Bay, Wash., $15,000; waterway connecting Puget Sound and Lakes Union and Washington, $17,500.

Kahului Harbor, Hawaii, $10,000; Honolulu Harbor, Hawaii, $25,000; San Juan Harbor, P. R., $8000.

Mississippi River Commission, $4,000,000; examinations, surveys, etc., $500,000.

Amount reserved for contingencies, $3,241,528.

Channel Improvement—Herkimer, N. Y.—An appropriation of $11,000 has been made for the improvement of the West Canada Creek channel.

✚Storehouses and Boat Shed—New York, N. Y.—The contract has been awarded to RUGGLES-ROBINSON CO., New York, N. Y., at $41,133, by the U. S. Engineer for constructing storehouses and a boat shed on Mill Rock at Hell Gate in the East River. Noted Apr. 1.

★Dredging—Philadelphia, Penn.—Bids will be received until noon, June 21, by the U. S. Engineer Office, 815 Witherspoon Bldg., Philadelphia, for dredging in Delaware River, opposite Port Richmond coal piers.

Building—Washington, D. C.—Plans have been prepared by Snowden Ashford, Municipal Arch., Washington, D. C., for the construction of a new fire department building on New Jersey Ave.

Building—Washington, D. C.—Bids will be received until 3 p.m., July 13, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for constructing a building for the Interior Department offices.

Cement—Washington, D. C.—Bids were received May 10 by the Commissioners of the District of Columbia for furnishing portland cement during the fiscal year as follows: Alpha Portland Cement Co., Easton, Penn., $1.49 per bbl.; Atlas Portland Cement Co., New York, N. Y., $1.09; Giant Portland Cement Co., Philadelphia, Penn., $1.12; Vulcanite Portland Cement Co., Philadelphia, Penn., $1.12; Lehigh Portland Cement Co., Allentown, Penn., $1.09; Security Cement & Lime Co., Hagerstown, Md., $1.01; Rosslyn Supply Co., Rosslyn, Va., $1.04; Coplay Cement Mfg. Co., Land Title Bldg., Philadelphia, $1.03 and National Mortar Co., Washington, D. C., $1.

Heating System—Washington, D. C.—Bids were received May 8 for furnishing and installing a steam and hot water distributing system, and heater at the U. S. Naval Hospital, Washington, as follows: (1) work complete, (2) under bidder's modified specification. L. B. Jacobs, Newark, Del., (1) $14,000; Enterprise Steam & Hot Water Heating Co., 407 North Howard St., Baltimore, Md., (1) $11989; Walter E. Hill & Co., 203 North Liberty St., Baltimore, Md., (1) $12,509; W. G. Cornell Co., Washington, D. C., (1) $12,248; Noland Clifford Co., Newport News, Va., (1) $11,977; John W. Danforth Co., 72 Ellicott St., Buffalo, N. Y., (1) $11,997, and Detroit Heating Co., Washington, D. C., (2) $9596.

Paving Blocks and Paving Brick—Washington, D. C.—Bids were received May 10 by the Commissioners of the District of Columbia for (a) repressed paving blocks and (b) vitrified sewer brick as follows: Morgantown Brick Co., Morgantown, W. Va., (b) $17.55 per M; Baltimore Clay Products Co., Baltimore, Md., (a) $24.50 per M, (b) $17.90 per M; Queen City Brick & Tile Co., Cumberland, Md., (a) $22.20 per M; Clearfield Clay Working Co., Clearfield, Penn., (a) $26.25 per M and Mack Mfg. Co., Philadelphia, Penn., (a) $2.50 per M.

Radio Sets—Washington, D. C.—Bids were received May 7 by the Chief Signal Officer, U. S. Army, War Dept., Washington, D. C., for furnishing seven radio sets as follows: Marconi Wireless Telegraph Co of America, New York, N. Y., standard set $17,479, on modified specifications, $18,879; Kilbourne & Clarke Mfg. Co., Seattle, Wash., $15,820; Wireless Specialty Apparatus Co., New York, N. Y., $15,256; Richard Pfund, New York, N. Y., $13,825; and the National Electrical Supply Co., Washington, D. C., at $1846 per set.

✚Residence—Washington, D. C.—The contract for constructing a superintendenrt's residence at the Tuberculosis Hospital at Washington, D. C., has been awarded to E. W. MOONEY, Washington, D. C., at $5499. Noted Apr. 8 and 22.

★Rewiring—Washington, D. C.—Bids were received May 11 by the Secretary of the Interior for rewiring the third floor and galleries of the Patent Office, as follows: Charles E. Brown, New York, N. Y., $7474; Carroll Electric Co., $7265; J. E. Taylor & Co., $6317; Standard Engineering Co., $6450; W. G. Cornell Co., $6590; E. S. Downs & Co., Philadelphia, Penn., $7473; Hixon Electric Co., Boston, Mass., $8921; Howard P. Foley Co., $6925; E. C. Graham, $7270; Capital Electric Co., $7379; W. B. Watson, $6987. Above bidders of Washington unless otherwise specified. Noted Apr. 29.

★Sewers—Washington, D. C.—Bids were received May 12 by the Commissioners of the District of Columbia for constructing sewers in Arizona Ave. from New Mexico Ave. to Newark St., as follows: (a) ordinary excavation, (b) concrete masonry, (c) vitrified brick masonry, (d) sewer brick masonry, Warren F. Brenizer & Co., 141 Q St., (a) $0.38, (b) $6.30, (c) $21, (d) $14; R. J. Beall Construction Co., (a) $0.64, (b) $7.89, (c) $22.84, (d) $16; George Hyman, (a) $0.65, (b) $8.50, (c) $19, (d) $15; William F. Cush, (a) $0.55, (b) $7.15, (c) $20, (d) $14.50. Noted May 6.

Building—Washington, D. C.—Supplementary bids were received May 10 by the Commissioners of the District of Columbia on revised bids covering the construction of the Parkview School. Competition was limited to the two lowest bidders on the former opening: Melton Construction Co., Washington, D. C., $121,000; Wells Bros. Co., New York, N. Y., $120,000. Noted Apr. 8 and 22.

School Building—Washington, D. C.—Plans and specifications are being prepared by Snowden Ashford, Municipal Arch. of the District of Columbia, for the construction of the superstructure of High School 174, at First St., N. W., between N and O St. The entire building, including excavation, substructure and foundations, for which contract has already been let, will cost $550,000.

Building—Pensacola, Fla.—The following bids were received by the Chief, Bureau of Yards and Docks, Navy Dept., Washington, D. C., May 1, for toilet building and alterations in buildings Nos. 16, 18 and 34 at the Navy aëronautic station, Pensacola, Fla.: (1) work, complete; (2) for omitting 12 clothes closets; (3) deduct if sheathing of present partition between dining room and kitchen and lounging room is not removed in building 34; (4) deduct for not lowering ceiling fixtures in building 16: Henry Monk, 314 West Belmont St., Pensacola, Fla., (1) $8880 and $325 for light fixtures in building No. 34, (2) $328, (3) $65, (4) $20; C. H. Turner Co., Pensacola, Fla., (1) $9589, (2) $366, (3) $92, (4) $12; F. M. Blount Construction Co., Pensacola, Fla., (1) $9434, (2) $535, (3) $75, (4) $12, and S. F. Fulghum Co., Pensacola, Fla., (1) $9987, (2) $9737, (3) $9927, (4) $9975. Noted Apr. 22.

✚★Stone—New Orleans, La.—The contract has been awarded to LESTER F. ALEXANDER, New Orleans, at $3189, by Maj. E. H. Schulz, U. S. Engineer Office, New Orleans, for furnishing and delivering 10,000 cu.yd. of stone at South and Southwest Passes, Mississippi River. Noted Mar. 18.

★Metal Work—Ashtabula, Ohio—Bids were received May 12 for metal work for superstructures of Ashtabula West breakwater light station as follows: McKinnon Iron Works Co., Ashtabula, at $3061 (recommended for acceptance); Champion Iron Co., Kenton, $3188; Lawrence D. Weaning, Cleveland, $3670, and August Feine & Sons Co., Buffalo, $4290. Noted Apr. 29.

Post Office—New Albany, Ind.—Bids were received May 8 by the Acting Supervising Architect, Treasury Dept., for the remodeling of the post office at New Albany, Ind., as follows:

J. Fred Beggs, Scottsburg, $66,430; William H. Fissell & Co., New York, N. Y., $77,768; John G. Unkefer & Co., Minerva, Ohio, $68,896; Hiram Lloyd Building & Construction Co., St. Louis, Mo., $67,927; Earle Embrey, New Albany, $98,993; Ingwald Moe, Gary, $68,800; James Devault, Canton, Ohio, $69,404; R. P. Farnsworth & Co., Owensboro, Ky., $67,675; Frank Weakley & Co., Canton, Ohio, $77,577. Noted Apr. 8.

Dredging—Kewanee Bay, Mich.—The following bids were received May 4 by Maj. E. D. Peek, Corps of Engineers, Duluth, Minn., for dredging: (a) Ontonagon, Mich., 30,000 cu.yd.; (b) upper entrance, Keweenaw Waterway, Mich, 20,000 cu.yd.; (c) harbor of refuge, lower entrance, Keweenaw Waterway, Mich., 498,000 cu.yd.: Northern Dredge & Dock Co., (a) 9c.; (b) 12c., (c) 20c., total $104,700; Great Lakes Dredge & Dock Co., (a) 20c., (b) 15c., (c) 8¾c., total $52,573; Zenith Dredge Co., (a) 14¼c., (b) 14¼c., (c) 9c., total $51,945 (recommended for acceptance). All bidders of Duluth, Minn. Noted Apr. 29.

Boilers—Milwaukee, Wis.—Bids will be received until 2 p.m., June 1, by the Light House Inspector, Milwaukee, for furnishing two marine boilers.

Water System—Crow Agency, Mont.—Bids will be received until 11 a.m., May 29, J. B. Houston, Depot Quartermaster, Washington, D. C., for installing a water system at the Custer Battlefield National Cemetery, Crow Agency. Noted Apr. 8 and May 13.

Post Office—Bryan, Tex.—Bids were received May 12, by the Acting Supervising Architect, Treasury Dept., Washington, D. C., for the construction of a post office at Bryan, (a) stucco face with limestone trimmings, (b) brick face with limestone trimmings, as follows: H. D. Brown, San Antonio, (a) $35,926, (b) $37,808; George A. Shaul, Seneca, Kan., (a) $36,920, (b) $39,420; Algernon Blair, Montgomery, Ala., (a) $35,352, (b) $37,137; Kreipke-Schafer Construction Co., El Reno, Okla., (a) $37,000, (b) $39,600; Volney E. Taylor, Huntington, W. Va., (a) $40,800, (b) $41,700; P. B. Hubbard, Bryan, (a) $37,005, (b) $39,005; C. V. Beatty, East Liverpool, Ohio, (a) $40,335, (b) $42,835. Noted Apr. 8.

Post Office—Corpus Christi, Tex.—Bids were received May 11 by the Acting Supervising Architect Treasury Dept., Washington, D. C., for the construction of a post office at Corpus Christi, (a) light-colored limestone Texas, (b) light-colored limestone, other than Texas, as follows: Colonial Construction & Supply Co., Charlotteville, Va., (a) $136,740, (b) $134,428; King Lumber Co., Charlottesville, Va., (a) $165,500, (b) $155,000; Dieter & Wenzel Construction Co., Wichita, Kan., (a) $135,230, (b) $135,230; Barnes Bros., Logansport, Ind., (a) $129,000, (b) $119,000; P. T. Shields, San Antonio, Tex., (a) $129,850, (b) $131,000; Weston & Kroeger, San Antonio, Tex., (a) $130,863; M. Yeager & Son, Danville, Ill., (a) $129,747, (b) $126,747; Thomas W. Cissel, Wooster, Ohio, (b) $131,000; William O'Neill & Son Co., Faribault, Minn., (b) $129,830; John G. Unkefer & Co., Minerva, Ohio, (b) $125,197; William H. Fissell & Co., New York, (a) $137,300; W. D. Lovell, Minneapolis, Minn., (b) $128,000; R. P. Farnsworth & Co., Fayetteville, N. C., (b) $128,000, and Hiram Lloyd Building & Construction Co., St. Louis, Mo., (b) $129,921. Noted Mar. 11 and Apr. 15.

Building—Ft. Bayard, N. M.—Bids will be received until 6 p.m., June 4, by the Quartermaster for constructing wards for ambulant patients.

Post Office—Park City, Utah—Bids were received May 13, by the Acting Supervising Architect, Treasury Dept., Washington, D. C., for the construction of a post office at Park City from: Campbell Building Co. of Utah, Salt Lake City, $22,460, and George A. Whitmeyer & Sons, Ogden, $25,072. Noted Apr. 8.

+Fuel Ship—Mare Island, Calif.—The contract has been awarded to the MARE ISLAND NAVY YARD, at $999,723, for constructing the fuel ship "Cuyama."

Sewer and Water Systems—San Diego, Calif.—The time for receiving bids for the construction of sewer and water systems at the Naval Radio station, San Diego, has been extended to 11 a.m., May 29. William M. Smith is Acting Ch. of Bureau of Yards and Docks. Noted Apr. 15.

+Road—San Francisco, Calif.—Contracts have been awarded by the Constructing Quartermaster to the SUNSET CONSTRUCTION CO., at $16,554, for constructing a macadam road from Lobos Creek to Battery Chamberlain, and to the D. L. BIENFIELD & CO., at $9372, for constructing a concrete road from the Marine Hospital to the stable site.

+Vessel—San Francisco, Calif.—The contract has been awarded to the CRAIG SHIPBUILDING CO., Long Beach, at $234,500, for constructing the steel lighthouse tender "Cedar." Noted Mar. 25 and May 6.

Cement Roofing Tile—Panama—Bids will be received until 10:30 a.m., May 28, by Maj. F. C. Boggs, Gen. Pur. Officer, Panama Canal Comn., Washington, D. C., for furnishing cement roofing tile.

Miscellaneous Supplies—Panama—Bids will be received until 10:30 a.m., May 27, by Maj. F. C. Boggs, Gen. Pur. Officer, Panama Canal Comn., Washington, D. C., for furnishing miscellaneous supplies.

Refrigerating Plant—Panama—Bids will be received until 10:30 a.m., May 27, by the General Purchasing Agent, Panama Canal, Washington, D. C., for a refrigerating plant.

★Steel Work—Panama—Bids were received May 3 by the General Purchasing Officer, the Panama Canal, Washington, D. C., for the furnishing or furnishing and erecting of structural steel and accessory parts for shed on Pier No. 18, Balboa Terminal, Canal Zone, as follows: (a) 3,730,000 lb., fabricated and delivered on dock at Colon; (b) 3,730,000 lb., fabricated, delivered and erected on foundations supplied by the Panama Canal: Belmont Iron Works, Eddystone, Penn., (a) 2.45c., total $91,285; Chesapeake Iron Works, Baltimore, Md., (a) 2.24c., total $83,553; McClintic-Marshall Co., Pittsburgh, Penn., (a) 2.27c., total $84,671, (b) 2.87c., total $107,051; Milliken Bros., 17 Battery Pl., New York, N. Y., (a) 2.29c., (b) 2.79c.; Pennsylvania Steel Co., Steelton, Penn., (a) 2.28c., total $85,044; United States Steel Products Co., New York, N. Y., (a) 2.23c., total $83,179, (b) 2.83c., total $105,559; Riter-Conley Co., Leetsdale, Penn., (a) 2.18c., total $81,314, (b) 2.83c., total $105,559. Noted Apr. 1.

MISCELLANEOUS

+Sea Wall—Boston, Mass.—The contract for building a concrete wall at Menamsha Inlet was awarded by the Board of Harbor and Land Commissioners to DENNIS F. CROWLEY, 658 Adams St., East Milton, at $6.40 per cu.yd.: Other bids were: Herbert N. Hinckley, Vineyard, Haven, $6.75; John R. Burke, 78 Devonshire St., Boston, $6.84; Cavanagh Co., 166 Devonshire St., Boston, $6.90; A. Williams & Co., 3 Cotting St., Boston, $6.90; Benjamin C. Cromwell, Vineyard Haven, $9; James H. Connolly, Hyannis, Mass., $10.45; George T. Rendle Co., 270 Condor St., East Boston, $10.50; Susi & Williams, 3 North Sq., Boston, $11.50. William F. Williams, State House, is Ch. Engr.

★Wharves—Woods Hole, Mass.—(Official)—Bids will be received until noon, June 12, by Col. John Millis, Newport, R. I., for rebuilding wharves and building a new sea wall and coal house at the U. S. Bureau of Fisheries Station.

★Dredging—Block Island, R. I.—(Official)—Bids will be received until noon, June 16, by Col. John Millis, Newport, for dredging in the harbor of refuge at Block Island.

★Generating Sets—Buffalo, N. Y.—(Official)—Bids will be received until 4 p.m., May 25, by the State Board of Army Commissioners, c/o the State Architect, Capital, Albany, for furnishing gasoline engine driven electric generating sets for Troop 1 Armory, Buffalo. Franklin W. Ward is Secy.

★Subway—New York, N. Y.—(Borough of Brooklyn)—Bids were received by the Public Service Commission for the First District, 154 Nassau St., New York, May 18 for the construction of Section No. 2 of Route No. 49, a part of the Culver Rapid Transit R.R. A three-track elevated railroad, beginning at a point in Gravesend Ave. about 525 ft. south of Bay Parkway and extending southerly over Gravesend Ave. and Shell Rd. to a point about 525 ft. south of Ave. X is required. The unofficial totals are as follows: Oscar Daniels Co., Woolworth Bldg., $863,775; Snare & Triest, $867,390; A. L. Guidone & Son, Inc., $877,097; Phoenix Bridge Co., $877,920; Post & McCord, $894,192; Ft. Pitt Bridge Works, $898,184; Connex Engineering & Construction Co., $908,000; Conners Bros., $908,604; T. A. Gillespie Co., $914,000; Arthur McMullen, $922,637; E. E. Smith Contracting Co., $929,000; Rodgers & Hagerty, Inc., $933,000; Norton Gorman Contracting Co., $936,000; Jobson Gifford Co., $982,587; H. P. Converse Co., $1,051,006; McClintic-Marshall Co. (no figures given). Noted Apr. 29.

Plaza—New York, N. Y.—(Borough of Brooklyn)—(Official)—The following are the bids received by Cabot Ward, Pres., Park Bd., Municipal Bldg., for the reconstruction of the Prospect Park Plaza at Ninth and 15th St.: James A. Heaney, $14,800; Ward & Tully, Inc., West 20th St., Brooklyn, $13,586; Frank J. Gallagher, $15,770; Edward Emberton, $15,519; F. G. Fearon Co. Inc., $16,824; Charles A. Myers Contracting Co., $17,815; Topeka Paving Co., Inc., $19,006. Noted May 6.

Improvement of Bay—New York, N. Y.—(Borough of Brooklyn)—The plan for improving Mill Basin, an important link in connection with the improvement of Jamaica Bay, has been decided on by the Sinking Fund Committee. The city is to develop the basins in the bay and provide the wharfage facilities, while the War Department will dredge the necessary channel to the outlet of the bay in the Atlantic Ocean. R. A. C. Smith is Comr. of Docks and Ferries.

Locomotive Cranes—New York, N. Y.—(Borough of Manhattan)—(Official)—The following are the bids received by the Department of Street Cleaning for furnishing and delivering four locomotive cranes: Ohio Locomotive Co., $15,200; Brown Hoist Co., $14,316; McMyler Interstate Co., $15,200; Davenport Locomotive Works, 50 Church St., New York, $12,000; Industrial Works, $13,644; Browning Co., $15,200. Noted Apr. 29.

Trailers—New York, N. Y.—(Borough of Manhattan)—(Official)—The following are the bids received by J. T. Fetherston, Comr., Dept. of Street Cleaning, Municipal Bldg., for furnishing and delivering 11 trailers. G. B. Marks, $12,782; Goodroad Machine Co., $13,530; Charles Havas & Co., Inc., 509 East 18th St., New York, $8910; General Vehicle Co., $15,653. Noted May 6.

Trailers—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., May 24, by Marcus M. Marks, Borough Pres., Municipal Bldg., for furnishing and delivering eight trailers.

Concrete Dam—Wallkill, N. Y.—According to press reports, bids will be received by the Town Clerk until 2 p.m., May 29, for constructing a concrete dam across the Wallkill River.

Fire Station—Bayonne, N. J.—The City Commissioners are considering the construction of a new firehouse at 25th St. and Prospect Ave.

Wharf and Ferry House—Elizabeth, N. J.—The Staten Island Ferry Co. has notified the Union County Board of Chosen Freeholders that it will construct a wharf and ferryhouse on the Elizabeth side of the sound to cost about $25,000.

★Rip-Rap—Sandy Hook, N. J.—(Ft. Hancock post office)—(Official)—Bids wil be received until noon, May 29, by Col. Frederic V. Abbot, Army Bldg., Whitehall St., New York, N. Y., for rip-rap stone for repair and enlargement of sea wall at south end of U. S. lands at Sandy Hook.

Stable and Storehouse—Jersey City, N. J.—Plans have been completed for a stable and storehouse for the city, the building will be three stories, 50x75 ft., of brick. The estimated cost is $50,000.

Stadium—Jersey City, N. J.—The city plans to construct a stadium in Reservoir Park, to seat 30,000. A. H. Moore, Comr., is in charge.

Fire Station—Jersey City, N. J.—The City Commissioners, May 13, decided to construct a firehouse in the Hudson City section.

Grand Stand—Newark, N. J.—The County Park Commissioners and Board of Chosen Freeholders have decided to erect a reinforced-concrete grand stand at the Weequahic Park race track. William Field, Engr., Newark, has prepared plans for the structure, which is estimated to cost $68,000.

Park Improvements—Newark, N. J.—The Essex County Park Commission has asked the Board of Chosen Freeholders for an appropriation of $250,000 for park improvements. The Finance Committee of the Board has voted to recommend the issuing of park bonds for that amount.

Terminal Improvement—Perth Amboy, N. J.—The Lehigh Valley R.R. will enlarge its coal storage terminal to provide trackage and facilities for 300 additional cars. The cost is estimated at $25,000.

Motor Fire Apparatus—Weehawken, N. J.—Bids were received by the Township Commissioner, May 10, for one motor-driven 65-ft. hook and ladder truck as follows: American La France Co., New York (four bids), $11,000; $9200; $9400; $10,200; A. Woodhouse Mfg. Co., $11,000; Front Drive Motor Co., $7900; Seagrave Co., Boston, $9684.

Motor Fire Apparatus—West New York, N. J.—The Town-Council plans to purchase two motor-driven hook-and-ladder trucks.

Trap Rock—Woodbridge, N. J.—Bids will be received by the Township Committee until 8:30 p.m., May 24, for furnishing 30 carloads of crushed trap rock, in sizes of ¾-, 1-, 1½- and 2½-in. Andrew Keyes is Township Clk.

★Sewage Disposal Plant—Beaver Falls, Penn.—(Official)—Bids will be received until 7:30 p.m., June 8, by the City Council for constructing a sewage disposal plant at Beaver Falls. Leo Hudson, 1210 House Bldg., Pittsburgh, is Engr.

★Substructure—Erie Harbor, Penn.—(Official)—Bids will be received until 11 a.m., June 19, by Capt. L. V. Frazier, Federal Bldg., Buffalo, N. Y., for constructing a concrete substructure on north pier, Erie Harbor.

✚Canal Work—Phoenixville, Penn.—The Schuylkill Navigation Co. has awarded a contract for the widening of the intake of the canal at Black Rock, near Phoenixville, to L. H. FOCHT & SON. The intake at present is about 45 ft. wide and it is planned to make it 100 ft. wide. The cost will be about $25,000.

★Concrete Wall—Wilkes-Barre, Penn.—(Official)—The following are the bids received for building a concrete retaining wall along Solomon's Creek between Franklin and Vulcan St.: C. J. Carroll, $12,625; Davis & Parry, $12,710; D. M. Rosser, $13,492; Arthur Casey, $13,632; Melan & Ryan, $13,685; A. L. Anderson & Bro., $14,373; Denburger Construction Co., $14,540; C. R. Camp, $15,074; M. J. Malloy, $15,154; George H. Buckland, $15,769; Joseph Banks Construction Co., $15,873; Whittaker & Deihl, $16,212; B. G. Coons Contracting Co., $16,410; H. R. Coronway, $17,555; John E. James, $17,709; C. Watkins & Son, $18,227; Sessler-Weaver Co., $20,942; C. M. Neeld Construction Co., $26,200. B. K. Finch is City Engr. Noted Apr. 15.

★Machinery—Washington, D. C.—(Official)—Bids will be received until 2 p.m., June 8, by B. Sweeney, Department of the Interior, for furnishing stokers, coal and ash handling machinery and other appliances for a power house.

Earth Fill—Christiansburg, Va.—See item under "Bridges."

Drainage—Wilmington, N. C.—Bids will be received until noon, May 24, by M. F. H. Gouverneu, Secy., New Hannibal County Drainage Dist., No. 1, for nine miles of ditches. The work involves 53,000 cu.yd. of excavation and the construction of ten small wooden bridges. J. L. Becton is Engr. Noted Feb. 11.

✚Ditches—Dyersburg, Tenn.—(Official)—The contract has been awarded by the Board of Directors of the Reed's Creek Drainage District, Dyer County, to R. H. & G. A. McWILLIAMS, Memphis, Tenn., for 660,000 cu.yd. of ditch excavation. The contractor also purchased the bonds. The Morgan Engineering Co., Memphis, Tenn., is Engr. Noted Apr. 22.

Dredging—Akron, Ohio—The Commissioners of Summit and Wayne Counties are considering the dredging of Chippewa ditch.

Drainage—Canton, Ohio—Bids will be received until noon, May 24, by Z. W. Kent, Dir. of Pub. Ser., for the construction of drainage ditches and tile drains.

Ditches—Canton, Ohio—The County Commissioners contemplate constructing Sugar Creek ditch, a distance of 12 miles, and Domer ditch, a distance of two miles.

Playground—Cincinnati, Ohio—Plans are being prepared by A. Lincoln Fechheimer, Lyric Theater Bldg., for a playground on Third St. near Martin St. The plans include swimming pools and the estimated cost is $45,000.

Recreation Center—Columbus, Ohio—The following are the bids received for constructing the recreation center in Glenwood Park: Ernest Kroener, $21,484; F. H. Nichol, $24,681; Hugh H. Carr, $24,498; Knox & Phillips, $24,157; John H. Hina, $25,161; E. E. Beckett, $25,779; Bebb & Thomas, $28,200. Noted Mar. 11.

★Bridge Repair—Toledo, Ohio—(Official)—Bids will be received until noon, June 1, by A. W. Boardman, Dir. of Pub. Serv., for repairing the Fassett St. Bridge.

Dredging—Chicago, Ill.—Bids will be received until 11 a.m., May 26, by W. R. Moorhouse, Comr. of Pub. Works for dredging the river at the South Halsted Bridge over the south branch of the Chicago River.

Drainage—Bennett, Wis.—A drainage project is planned for this district, which will include about 30,000 acres of land. David Dobbie, Superior, is interested.

✚Motor Fire Apparatus—Milwaukee, Wis.—The contract for furnishing three combination chemical and hose wagons has been awarded by the Board of Public Works to the SEAGRAVE CO., Columbus, Ohio, at $15,000.

★✚Concrete Dam and Bulkhead—Waverly, Iowa—The contract for the construction of a concrete dam and bulkhead across the Cedar River has been awarded to PRICE BROS., East Jordan, Mich., at $5.40 per cu.yd. C. A. Cool is Engr. Noted Apr. 22.

Ditch—Litchfield, Minn.—Bids will be received until May 17 by A. O. Palmquist, County Audr., for constructing Ditch No. 36. The estimated cost is $19,000.

Speedway—Wichita, Kan.—The construction of a motor speedway, to cost $250,000 is contemplated. J. J. Jones, Wichita, is interested.

Park Improvements—Omaha, Neb.—The city will issue $50,000 in bonds for park improvements. Watson Townsend is City Engr.

✚Levee—Helena, Ark.—According to press reports, the Board of Directors of the Cotton Belt Levee District awarded a contract to J. A. BURT, of Bond & McMurray, Beulah, Miss., for 1,388,000 yd. of levee improvement, at 16.98c. per yd. Noted Apr. 29.

Drainage—Eagle Lake, Tex.—Bids will be received by the Commissioners' Court of the Colorado County Drainage District No. 1 until 10 a.m., June 1, for the excavation of about 16 miles of drainage ditches. The Norris Engineering Co., Wharton, Tex., is Engr.

★Building—Ft. Sam Houston, Tex.—(Official)—Bids will be received until 11 a.m., June 4, by Constructing Quartermaster for constructing the commanding officers' quarters, barracks and stable.

★Buildings—Ft. Sill, Okla.—(Official)—Bids will be received until 11 a.m., June 15, by the Constructing Quartermaster, for constructing quartermaster corps barracks, double set engineer's quarters magazine, additions to four barracks buildings, five stables, repairing nine double officers' quarters and other buildings.

Fire Apparatus—Boise, Idaho—(Official)—Bids will be received by Nancy E. Robertson, City Clk., until noon, June 3, for one motorized combination chemical and hose wagon.

★Reclamation Work—Provo, Utah—(Official)—Bids will be received until 2 p.m., June 16, by A. P. Davis, Ch. Engr., U. S. Reclamation Service, Provo, for reclamation work.

Ditches—Bellingham, Wash.—Bids will be received until 10 a.m., May 25, by W. D. Wallace, County Audr., for the construction of a main ditch and three laterals for Drainage Improvement District No. 7.

Elevators—Seattle, Wash.—Bids will be received until June 1, by Byron Phelps, Clk., Board of County Commissioners for furnishing, delivering and installing electric passenger elevators of the "drum" and "traction" types, in the new King County Courthouse. Plans on file in office of A. Warren Gould, Arch., American Bank Bldg., Seattle.

Fill—Tacoma, Wash.—A proposition has been submitted to the County Commissioners by Commercial Waterway District No. 1, Hylebas Creek Diking District, for filling Lincoln Ave. and traversing tideflats, a distance of 1½ miles. H. H. Henderson, Anderson is Ch. Engr. of the District.

Addition to Dock—Portland, Ore.—Emil Schacht & Son, Portland, is preparing plans for an addition to the Albers Dock. The addition will be of fireproof construction and will cost about $20,000.

Repairs to Dry Dock—Portland, Ore.—Bids submitted to the Port of Portland for repairs and changes to the pontoons on the public dry dock at St. Johns, were rejected and new bids will be received. Bids cover two propositions, (a) for tearing down old wings and reconstructing same, (b) for new wings.

Levee—El Centro, Calif.—The Board of Directors of the Imperial Irrigation District has authorized C. R. Rockwood, Ch. Engr., to construct an extension of 7½ miles of the Volcano Lake levee.

Pier—La Jolla, Calif.—A donation of $100,000 has been received by the Scripps Institution for Biological Research. The extension of a 1000-ft. concrete pier, and the erection of a fireproof library, museum, aquarium, and several dwellings are planned.

Ferry Boat—Richmond, Calif.—A ferry boat to cost about $125,000 will be built for the Richmond-San Rafael Ferry Co. M. Moch is Supt.

✚Addition to Bulkhead—Stockton, Calif.—The contract for constructing a new addition to the bulkhead on the north side of Stockton Channel has been awarded to JACOB & SAYLES, Stockton, at $36.23 per lin.ft.

Dam—Montreal, Que.—Bids will be received until June 15 by the Quebec Streams Commission, McGill Bldg., Montreal, for a storage dam at La Loutre on the St. Maurice River. O. Lefebvre is Ch. Engr.

★Supplies—Toronto, Ont.—(Official)—Bids will be received until noon, May 25, by T. L. Church, Chn. Bd. of Control, for cedar ties for the Lansdowne Ave. extension of the Toronto Civic Ry. and for a 5,000,000-gal. pump.

Dredging—New Westminster, B. C.—Bids will be received until 4 p.m., May 27, by R. C. Desrochers, Secy. Dept. of Pub. Wks:, Ottawa, Ont., for dredging at Shoal Passage, Howe Sound, Comox-Atlin District, B. C. Specifications can be obtained from C. B. Worsfold, District Engr., New Westminster.

BUILDINGS

Chisholm, Maine—I. M. Leguemec, St. Rose of Lima School, is receiving bids for the construction of a two-story, 65x130-ft. school, to cost about $40,000. T. G. O'Connell, 18 Boylston St., Boston, Mass., is Arch.

✚Deering, Maine—J. W. Honlipan has awarded the contract to F. W. CUNNINGHAM CO., 430 Congress St., Portland, Maine, for the construction of a two-story, 56x98-ft. school to cost $40,000. T. G. O'Connell, 18 Boylston St., Boston, Mass., is Arch.

✚Manchester, N. H.—A. BRUNNELLE, 316 Kelley St., has been awarded the contract for the construction of a two-story, 55x127-ft. school and church to cost $60,000. J. N. Guertin 316 Kelley St., is Arch. Noted Jan. 7.

✚Manchester, N. H.—The Eagle Amusement Co. has awarded the contract to F. X. FLAMMIL, 189 Belmont St. for the construction of a four-story, 90x100-ft. theater to cost $60,000. Wilfred E. Provost, 581 Union St., in Arch.

Boston, Mass.—Bids have been received for the construction of a one-story, 54x125-ft. church for the St. Ambrose Congregation. Rev. John H. Harrigan is pastor. The estimated cost is $40,000. W. H. McGinty, 101 Tremont St., is Arch.

Boston, Mass.—The Massachusetts General Hospital will build a four-story, 100x120-ft. administration building. Shepley, Rutan & Coolidge, Arch., 122 Ames Bldg., has received revised bids.

Boston, Mass.—Preliminary plans are being prepared for an addition to the Boston State Hospital, to cost $407,000. The State Board of Insanity, 36 State House, is in charge of the construction. Kendall, Taylor & Co., 93 Federal St., is Arch.

✚Boston, Mass.—The GEORGE A. FULLER CO., 131 State St., has been awarded the contract for the construction of a three-story addition to the Wentworth Institute, Huntington Ave., to cost $200,000. Peabody & Stearns, 53 State St., is Arch.

✚Boston, Mass.—Mayor Curley has awarded the contract to JULIUS A. SCHWEINFURTH, 35 Congress St., for the construction of an addition to the High School of Practical Arts. The estimated cost is $50,000.

✚Boston, Mass.—James M. Curley, Mayor, has awarded the contract for the construction of an addition to the Hyde Park School to CHARLES R. GRACE, at an estimated cost of $50,000.

✚Boston, Mass.—W. Stanley Tripp, 95 Milk St., has awarded the contract to L. L. SELLEW, 136 Brighton Ave., for the construction of a four-story, 88x96-ft. apartment block, at Brighton and Park Vale Ave., to cost $80,000. John C. Stafford, 15 Beacon St., is Arch.

Boston, Mass.—Charles G. Dawes will build a hotel for the unemployed to cost $100,000. Brown & Walcott, 19 South La Salle St., Chicago, Ill., is Arch.

Boston, Mass.—W. J. MacDonald, 95 Milk St., plans the construction of a two-story coliseum to cost about $100,000. George N. Meserve, 95 Milk St., and C. H. Blackall, 20 Beacon St., are Arch.

Chicopee, Mass.—The Fisk Rubber Co. will build an office building on Oak and Grove St.

Danvers, Mass.—Competitive designs for a high school will be received by the School Committee until June 1. Daniel N. Crowley, 81 Washington St., is Chn. of Com.

✚Lawrence, Mass.—The contract for the construction of a two-story, 65x90-ft. parochial school has been awarded to PATRICK GUERIN, 127 Butler St. T. Edward Sheehan, Tremont Bldg., Boston, Mass., is Arch.

Lynn, Mass.—The Vallodolid Lodge, Knights of Columbus, James J. Donohue, Treas., 81 Jefferson St., will build a $100,000 lodge and store building. Joseph D. McGinniss, 16 Arlington St., Boston, Mass., is Arch.

✚Maynard, Mass.—JOSEPH M. DOLAN CO., 197 Sidney St., Cambridge, Mass., has been awarded the contract for the construction of a two-story, 56x125-ft. school, to cost $60,000. Charles R. Greco, 8 Beacon St., is Arch. Noted Mar. 11 and Apr. 8.

✚New Bedford, Mass.—The Dartmouth Historical Society has awarded the contract to the WILLIAM CRANE CONSTRUCTION CO., Vassar St., Cambridge, Mass., for the construction of a two-story, 45x90-ft. museum, estimated to cost $100,000. Henry Vaughn, Pemberton Bldg., Boston, Mass., is Arch.

Revere, Mass.—Meyer Dana, 209 Washington St., Boston, Mass., contemplates the construction of a one-story picture theater, to cost $45,000.

Salem, Mass.—The city of Salem plans the construction of a two-story, 75x110-ft. school, to cost $90,000. James E. McLaughlin, 111 Devonshire St., Boston, Mass., is Arch.

Springfield, Mass.—The Hampden County Commissioners announce that the county will build a $100,000 training school for boys. G. P. B. Alderman & Co., Holyoke, Mass., is Arch.

✚Swampscott, Mass.—James Santry, 31 Exchange St., Lynn, Mass., Chn. Bldg. Com. has awarded the contract for the remodelling of the high school to the C. S. CUNNINGHAM & SONS CONSTRUCTION CO., 7 Water St., Boston, Mass. Charles V. Burgess, 25 Exchange St., Lynn, Mass., is Arch. The estimated cost is $47,000. Noted Apr. 1.

West Springfield, Mass.—J. R. Fansey, Supt. of Schools, Town Hall, announces that a three-story, 69x164-ft. addition will be built to the high school, to cost about $100,000. Fowle & Harding, 93 Elm St., Westfield, Mass., is Arch.

Worcester, Mass.—Bids for the construction of an addition to the North High School were received as follows: Israel Goldman, $186,550; J. W. Bishop, $207,812; Central Building Co., $203,600; Connors Bros. Co., New York, $193,550; George Baker Long, $199,950; F. W. Mark, $209,198; James Miles & Son Co., $205,104; Walter L. Mellen, $214,164; Edwin Outwater, New York, $197,388; John J. Power, $209,820; A. E. Stephens, $208,250; United Fireproofing Co., $208,507. Noted Oct. 29, Jan. 21, Apr. 15, 22 and 29.

Pawtucket, R. I.—The Marsdon Construction Co. will remodel the old railway station into a motion picture theater. It will cost $60,000.

Providence, R. I.—Jackson, Robertson & Adams, 1216 Turks Bldg., has prepared plans for the proposed Central Baptist Church. E. H. Rhode is Chn. of Bldg. Com.

New Canaan, Conn.—Irving Lochwood and Gilbert Stevens, Railroad Ave., will build an eight-story, 55x100-ft. building. W. H. McLean, 110 Tremont St., is Arch.

✚Beacon, N. Y.—(Official)—The contract for the construction of a high school on Fishkill Ave. has been awarded to J. M. VOSS, Yonkers, at $42,696. Other bids were: John H. Muller, Poughkeepsie, $44,169; James Fomstel Co., Beacon, $44,463. Homer H. Stuart is Pres. Bd. of Education. Noted Jan. 14, Feb. 18, Mar. 18, Apr. 8 and 29.

Buffalo, N. Y.—Stuart A .Haywood, Pres. of Central Labor Council of Buffalo, is interested in a project to construct a Labor Temple. The estimated cost is $200,000.

Little Falls, N. Y.—Plans are being prepared by William Neil Smith, Arch., 101 Park Ave., New York, for the construction of a four-story city hall for Little Falls. The estimated cost is $100,000.

New York, N. Y.—(Borough of Bronx)—Plans have been prepared by Andrew J. Thomas, Arch., 2526 Webster Ave., for the construction of a store and office building at Webster Ave. near Fordham Rd. for the Wedyegood Co., 401 East 163d St. Estimated cost, $60,000.

New York, N. Y.—(Borough of Brooklyn)—Plans are being prepared by Axel Hedman, Arch., 367 Fulton St., for the construction of a five-story hospital at New York Ave. and Union St. for the Unity Hospital. Estimated cost, $45,000. M. A. Cohn is Pres. of hospital.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared for the construction of a 12-story, fireproof apartment house on Riverside Drive and 144th St. for the Paterno & Son Contracting Co. The estimated cost is $500,000.

New York, N. Y.—(Borough of Manhattan)—The Society for the Relief of the Destitute Blind, Amsterdam Ave. and and 104th St., has purchased a site at Kingsbridge Rd., Grand Blvd. and Concourse, Criston Ave. and 193d St. A building will be constructed on the site.

Rochester, N. Y.—Plans are being prepared by Claude Bragdon and Foster & Gade, Assoc. Archs., for the construction of a two-story building at St. Paul and Mortimer St., for the Rochester Chamber of Commerce. The estimated cost is $500,000. The building will be a gift to the city from George W. Eastman, Pres. of Eastman Kodak Co.

Rome, N. Y.—The Rome Trust Co., 103 South St., contemplates remodeling its building at James and Dominick St. Estimated cost, $75,000. Frederick M. Shelley, 103 West Garden St., is Pres.

Shelter Island, N. Y.—Bids will be received until May 22 for the construction of a 130x200-ft. preparatory school for the Passionist Fathers. The estimated cost is $125,000. F. J. Berlenbach, 260 Graham Ave., Brooklyn, is Arch.

White Plains, N. Y.—The Supervisors of the Westchester County Board plan to construct a county penitentiary and workhouse on the Alexander Smith Cochrane farm near East View. Robert S. Brewster is Chn. of Bldg. Comn.

Cliffside Park, N. J.—(Cliffside post office)—Bids were received May 12 by the Board of Education for the construction of a high school as follows: Coba Construction Co., $63,701; G. H. Decker, $65,100; Thalen Construction Co., $69,750; Kelly Construction Co., $68,000; Jennings & Wellster, $73,381; A. W. Croné & Sons, $69,814; De Kimpe Construction Co., $64,475; G. T. Kelly, $71,998. Noted Mar. 11 and Apr. 22.

Jersey City, N. J.—The F. A. Lohmeyer Co., recently incorporated with a capital of $250,000, will construct 16 two-story brick buildings on Claremont Ave. and 15 apartment houses on Orient Ave. F. A. Lohmeyer is Pres.

Jersey City, N. J.—The city plans to construct a school for for crippled children. M. I. Fagen is City Clk.

Jersey City, N. J.—John T. Rowland, Jr., Arch., 98 Sip Ave., has prepared plans for the construction of an addition to the st. Ann's Home on Old Bergen Rd.

Leonia, N. J.—Plans have been prepared by Ernest Sibley, Arch., Palisade, for the construction of a two-story addition to the high school. Estimated cost, $50,000. Louis D. Winkleman is Clk. of Bd. of Education.

Morristown, N. J.—Guilbert & Betelle, Arch., 665 Broad St., Newark, is preparing revised plans for the construction of a high school. W. Parsons Todd is Chn., Bd. of Education. Noted Mar. 4.

Trenton, N. J.—S. W. Mather & Son, Philadelphia, Penn., at $215,000, submitted the lowest bid for the construction of a high school at Trenton. Noted Sept. 24 and Dec. 24.

Bedford, Penn.—The citizens contemplate the construction of a courthouse for Bedford County. Estimated cost, $100,000.

Kingston, Penn.—The Board of Education plans the construction of a two-story school. Estimated cost, $50,000. Sturdevant & Poggi, Coal Exchange Bldg., Wilkes-Barre, is Arch.

Lansford, Penn.—Clyde Adams, Arch., 1509 Arch St., Philadelphia, is preparing plans for the construction of a two-story high school. The estimated cost is $150,000. W. G. Thomas is Secy., Bd. of Education. Noted Feb. 4 and Apr. 15.

Philadelphia, Penn.—A site has been purchased at 32d St. and Lancaster Ave. for the construction of an armory for the National Guards. Estimated oost, $200,000.

Philadelphia, Penn.—The State Legislature, Harrisburg, is considering the construction of a state office building at Philadelphia.

✚Pittsburgh, Penn.—According to press reports the contract for the construction of the Shenley High School has been awarded to the RITER-CONLEY MFG. CO., Leetsdale, Penn. Noted Oct. 22, Nov. 19, Apr. 1 and 22.

✚Pottsville, Penn.—The contract for the construction of a three-story, 50x250-ft. theater for the Hoffman Co. has been awarded to PHILIP BRENNEMAN, Pottsville.

South Brownsville, Penn.—The Board of Education contemplates the construction of a two-story high school. Estimated cost, $65,000. W. H. Gray is Secy. and A. P. Cooper, First National Bank Bldg., Uniontown, is Arch.

Susquehanna, Penn.—Plans are being prepared by Tiffany & Conrad, Arch., Phelps Bldg., Binghamton, N. Y., for the construction of a one-story theater for J. Ryan. Estimated cost, $50,000.

✚Towanda, Penn.—(Official)—The WARREN CONSTRUCTION CO., Jamestown, N. Y., has been awarded the contract for the construction of a two-story high school. The estimated cost is $90,000. Pierce & Bickford, Elmira, N. Y., is Arch. Noted Dec. 24 and Apr. 15.

✚Warren, Penn.—The WARREN GENERAL CONSTRUCTION CO., Warren, has been awarded the contract for the construction of a church on North Park Ave. for the First Methodist Church. Estimated cost, $75,000.

Wilkinsburg, Penn.—Bids have been received by the Pennsylvania R.R. for the construction of a passenger station at Hay St. and Ross Ave. The estimated cost is $150,000.

Baltimore, Md.—The Council is considering the question of appropriating $125,000 for the construction of a school in the 14th Ward.

Washington, D. C.—Bids have been received by F. R. White & Co., Arch., for the construction of a seven-story apartment house at 16th and I St., for Thomas H. Pickford. The estimated cost is $200,000.

Huntington, W. Va.—Frank B. Enslow and the Jeff Newberry Shoe Co. plan to construct a six-story, fireproof business building at Third Ave. and 11th St.

Matewan, W. Va.—(Official)—Pedigo & Garry, Arch., Bluefield, advises us that the work on the construction of the $150,000 hotel will be done by day labor. R. W. Buskirk is owner of the hotel. Noted May 6.

Memphis, Tenn.—Boyle & Boyle, Attorney, is interested in a proposition to construct a 10- or 15-story store and office building at Main St. and Monroe Ave.

Nashville, Tenn.—Plans are being prepared by the Official Board of the McKendree Church for the construction of an eight-story, fireproof office building on a site in front of the church. The estimated cost is $200,000. M. M. Cullom, is interested.

Cincinnati, Ohio—-Joseph G. Steinkamp & Bro., Arch., 414 Walnut St., is preparing plans for the construction of a two-story gymnasium for the St. Xavier College. The estimated cost is $60,000. Noted Apr. 15.

Cleveland, Ohio—F. W. Geddes, Williamson Bldg., is interested in a company recently incorporated which plans to construct a "U" shaped apartment house at Prospect Ave., S. E., near East 40th St. The estimated cost is $100,000.

Cleveland, Ohio—The Statler Hotel, Euclid and East 12th St., plans the construction of a 12-story addition to the hotel. Estimated cost, $600,000. J. P. A. O'Conor is Mgr. and E. M. Statler is Owner.

Cleveland, Ohio—George S. King, Arch., 316 Permanent Bldg., is preparing plans for the construction of a six-story commercial and theater building at Shaw and Hayden Ave., for Francis K. Lees.

Cleveland, Ohio—Bids have been received for alterations and improvements to the Kinsman and Standard School Buildings. W. R. McCormack is Arch. of the Bd. of Education.

Cleveland, Ohio—Plans have been prepared by Charles S. Schneider, Arch., 2248 Euclid Ave., for the construction of a building at Cedar Rd. and Euclid Ave., for the Plymouth Congregational Church. Estimated cost, $150,000.

Cleveland Heights, Ohio—(Warrensville post office)—Bids will be received about June 1 by the Board of Education for the construction of a two-story school. Estimated cost, $75,000. Franz C. Warner, 767 Hippodrome Bldg., Cleveland, is Arch. Noted May 6.

Coshocton, Ohio—The Y. M. C. A. contemplates the construction of a two-story building, estimated to cost $50,000. R. H. Mills, People's National Bank, Main St., is Pres.

Minerva, Ohio—Plans have been prepared by Howard & Merriam, Arch., 8 East Broad St., Columbus, for the construction of a high school. The estimated cost is $65,000. Noted Mar. 25.

Urbana, Ohio—Plans have been prepared by F. G. Mueller, Arch., Hamilton, for the construction of a Masonic Temple. The estimated cost is $50,000.

✚Bloomington, Ind.—The contract for the construction of a gymnasium for the University of Indiana has been awarded to DAGGETT & DAGGETT, Indianapolis. The estimated cost is $150,000. Noted Mar. 25, Apr. 1 and May 6.

Indianapolis, Ind.—The members of the City School Board have approved the revised plans for the construction of the main public library building, north of St. Clair Park. Estimated cost, $500,000. A bond issue for the amount will soon be advertised for sale by the School Board. Noted Feb. 12, Apr. 23, July 9, 1914 and Jan. 14. 1915.

★Detroit, Mich.—Bids will be received until 10 a.m., June 9, by George H. Fenkell, Comr., City Hall, Detroit, for the construction and completion of the Municipal Court building. Smith Hinchman & Grylls, 710 Washington Arcade Bldg., is Arch. Noted Nov. 5 and Apr. 22.

Chicago, Ill.—According to press reports Francis S. Peabody, Pres. of the Chicago Athletic Association, plans to construct an 18-story clubhouse at 12 South Michigan Ave. and Madison St. The estimated cost is $2,500,000. Marshall & Fox, 38 South Dearborn St., is Arch.

Chicago, Ill.—Plans have been prepared by Eric E. Hall, County Arch., for the construction of an eight-story jail and Criminal Court building. Estimated cost, $2,500,000. Noted Apr. 8 and 29.

Chicago, Ill.—Work will soon be started on the construction of a 19-story hotel for the Y. M. C. A. The estimated cost is $1,000,000.

Chicago, Ill.—Christian A. Londelius, 6335 South Peoria St., plans to construct an apartment house on Woodlawn Ave. between 54th Pl. and 55th St. The estimated cost is $125,000.

Milwaukee, Wis.—Plans are being revised by A. C. Eschweiler, 720 Goldsmith Bldg., for the construction of the Main Exchange building on Broadway, between Wisconsin and Mason St. for the Wisconsin Telephone Co., 183 Fifth St. Estimated cost, $500,000. H. O. Seymour, is Gen. Mgr. Noted Dec. 31.

Milwaukee, Wis.—(Official)—Bids will be received about June 1 by Kirchoff & Rose, Arch., Majestic Bldg., for the construction of a four-story building for the Palace Theater Co. Noted Mar. 4 and 11, Apr. 1 and May 6.

Milwaukee, Wis.—The Department of Bridges and Public Buildings is preparing plans for the construction of a two-story, 50x115-ft. natatorium in the 14th Ward. Estimated cost, $60,000. F. G. Simmons is Comr. of Pub. Wks.

Ft. Dodge, Iowa—W. L. Steele, Arch., United Bank Bldg., Sioux City, is preparing plans for the construction of a two-story church. Estimated cost, $75,000. Edmund Harlan is Pastor.

Linn Grove, Iowa—The Consolidated District voted in favor of issuing $48,000 in bonds, the proceeds of which will be used to construct a school.

✚Sioux City, Iowa—The contract for the construction of the Elks Lodge building at Eighth and Douglas St. has been awarded to COMER & SMALL. Noted Jan. 14 and Feb. 25.

✚Vinton, Iowa—The contract for the construction of the $50,000 Methodist Church has been awarded to THEODORE STARK & CO., Cedar Rapids, Iowa.

Omaha, Neb.—(Official)—Bids will be received about July 1 by J. S. Dales, Secy. of Bd. of Regents, Lincoln, Neb., for the construction of a hospital for the College of Medicine at the University of Nebraska, 42 Dewey Ave. The estimated cost is $150,000. Irving S. Cutter is Secy. of the university and John Latenser is Arch. Noted Apr. 29.

Madison, S. D.—J. H. Taileffer plans to construct a building to cost about $60,000.

Milbank, S. D.—Bonds to the amount of $45,000 have been sold by the County Commissioners of Grant County. The proceeds will be used for the construction of a courthouse.

Butte, Mont.—(Official)—Bids will soon be received by School District No. 1, Silver Bow County, Butte, for the construction of a high school including a 50x140-ft. gymnasium and a 22x60-ft. swimming-pool. The estimated cost is $100,000. Wilson & Cutting is Arch. Noted under Anaconda, Mont., May 6.

Great Falls, Mont.—The Great Falls Tribune plans to construct a two-story office building. Estimated cost, $75,000.

✚Kansas City, Mo.—GEORGE L. BROWN has been awarded the contract for the construction of a five-story, 49x116-ft. building at 12th and Walnut St. for the Chambers Estate. The estimated cost is $118,000.

Kansas City, Mo.—McKecknie & Trask, Arch., is preparing plans for the construction of a six-story, reinforced-concrete building for E. P. Moriarity and J. F. Moriarity. The estimated cost is $100,000.

St. Louis, Mo.—The St. Louis Lodge, No. 3, Loyal Order of Moose, will build a 180x272-ft. lodge to replace the present one at Grand Ave. and West Pine Blvd. The estimated cost is $500,000.

Coldspring, Tex.—The County Commissioners plan to rebuild the courthouse recently destroyed by fire. It will be fireproof and cost about $75,000. W. McMurrey is County Judge.

El Paso, Tex.—Plans are being considered by the Directors of Chamber of Commerce for the construction of a municipal auditorium. The estimated cost is $100,000. F. D. Gustom is interested.

El Paso, Tex.—Plans are being prepared by Trost & Trost, Arch., Mills Bldg., for the construction of a nine-story, fireproof addition to the Paso Del Norte Hotel owned by Z. T. White.

El Paso, Tex.—Trost & Trost, Arch., Mills Bldg., is preparing plans for the construction of a six-story addition to the Popular Dry Goods Store Bldg. The estimated cost is $120,000.

Ft. Worth, Tex.—Contracts will be awarded about July 1 by Van Slyke & Woodruff, Arch., American National Bank Bldg., for the construction of a seven-story hotel, with two wings, on Main St. between 10th and 11th St. for J. C. Ingram. Estimated cost, $500,000. Noted Apr. 22.

Oklahoma, Okla.—Bids will be received until 2 p.m., June 7, by the State Capitol Commission for the construction of the Oklahoma State Capitol. Layton & Smith, 701 Majestic Bldg., is Arch. R. L. Williams is Chn. and Ira Mitchel is Secy. of State Capitol Comn. Noted Apr. 23, Nov. 26 and Dec. 31.

Plainview, Colo.—The National Order of Cowboy Rangers plans to construct a $50,000 clubhouse at Plainview. A. U. Mayfield is interested.

Tyrone, N. M.—The Phelps-Dodge Co., 99 John St., New York, N. Y., plans to expend about $200,000 in the construction of buildings at its new camp in Tyrone. The buildings will include a $100,000 general store and hotel, a $50,000 hospital, and $50,000 for houses for the employees. The entire construction will be of reinforced concrete.

Pocatello, Idaho—(Official)—Bids will be received until May 25, by the Clerk of the School Board for the construction of a high school. The estimated cost is $100,000. F. H. Paradice, Jr., is Arch. Noted Mar. 18, Apr. 8 and May 6.

✚Salt Lake City, Utah—(Official)—The contract for the construction of the first unit of the 26-room school at 13th, East and Seventh South St. has been awarded to J. F. & H. E. SCHRAVEN, Salt Lake City, at $61,636. Other bids were: Campbell Building Co., $70,800; Salt Lake Building & Mfg. Co., $69,680; West & Thornton, $64,749; Rudine & Chytraus, $62,950; Alston & Hoggan, $76,140; A. J. Gellis, $74,954; James Stewart & Co., $65,710; James H. Angel, $74,500. L. R. Judd is Clk., Bd. of Education and F. D. Rutherford, McIntyre Bldg., is Arch. Noted Apr. 8 and 29.

Salt Lake City, Utah—The Desert National Bank plans to construct a 24-story building. Estimated cost, $1,000,000. Parkinson & Bargerstrom, Los Angeles, Calif., is Arch.

Miami, Ariz.—The School Board has retained Trost & Trost, Arch., Mills Bldg., El Paso, Tex., to prepare plans for the construction of a school at Miami. The estimated cost is $75,000.

Phœnix, Ariz.—The City Council is considering the construction of a city hall. The estimated cost is $500,000.

North Yakima, Wash.—Contracts will be awarded about June 10 by N. A. Henderson, 313 South Fourth St., for the construction of a three-story, 100x140-ft. apartment house on Naches Ave. The estimated cost is $85,000. Noted Apr. 15.

Port Townsend, Wash.—(Official)—E. O. Reeder, Ch. Engr. of the Seattle, Port Angeles & Lake Crescent Ry. Co., Seattle, informs us that the company's own forces will construct the $50,000 terminals at Port Townsend. Noted Apr. 29.

✚Seattle, Wash.—The contract for the construction of the nine-story, 110x120-ft. theater at Fifth Ave. and Pike St. for the Coliseum Amusement Co. has been awarded to the PEARSON CONSTRUCTION CO., New York Block, Seattle, at $141,400. Other bids were: Brandt Construction Co., 2327 Fifth Ave., $141,377; Sound Constructon Co., Lowman Bldg., $143,000; Hendrickson Construction Co., New York Block, $143,150; Butler Contracting Co., Central Bldg., $144,100; H. D. Stewart, American Bank Bldg., $145,994; A. W. Quist, Hoge Bldg., $146,799; Hans Pederson, Madison Block, $150,900; Grant Smith & Co., Henry Bldg., $155,500; W. B. Lance, Northern Bank Bldg., $156,507; M. J. Hursen Co., Globe Bldg., $162,500. Noted Mar. 25 and Apr. 15.

Portland, Ore.—E. B. McNaughton, Arch., has prepared plans for the construction of a three-story addition to the building of the Marshall-Wells Hardware Co., 14th, 15th, Kearney and Lovejoy St. The estimated cost is $70,000.

Portland, Ore.—Contracts will be awarded about July 1 by R. H. Thomas, Clk., Bd. of Education, 401 Court House, for the construction of a two-story administration building at the Franklin School. Estimated cost, $125,000. Noted Dec. 24.

✚Atascadero, Calif.—(Dove post office)—The F. O. ENGSTROM CO., Fifth and Seaton St., Los Angeles, has been awarded the contract for the construction of a group of Class A buildings for the Colony Holding Corporation. The estimated cost is $2,000,000. Bliss & Faville, Balboa Bldg., San Francisco, is Arch.

✚Berkley, Calif.—C. L. WOLD & CO., Lombard and Jones St., San Francisco, has been awarded the contract for the construction of a store and apartment building at Derby and College St. for J. M. Booth, 2730 Webster St., Berkeley. The estimated cost is $50,000.

Huntington Beach, Calif.—Plans have been approved by the School Board for the construction of a two-story school at 15th St. and Edgeware Ave. The estimated cost is $70,000. Noted Mar. 11 and Apr. 15.

✚Los Angeles, Calif.—The contract has been awarded to JOHN MULDER at $63,000, for the construction of a five-story apartment and nursery building on Bolsa St., for O. T. Johnson. A. B. Benton is Arch.

✚Los Angeles, Calif.—The contract for the construction of a two-story school at 1517 East 14th St. has been awarded to the JOHN HARNISH CO., 516 Stimson Bldg., Los Angeles, at $78,000. Noted Mar. 18 and Apr. 15.

Los Angeles, Calif.—Bids will be received until 11 a.m., May 18, by William A. Scheldon, Secy. of Bd. of Education, for the construction of a group of buildings for the Franklin High School on 54th Ave. between Irvington Pl. and Hub St. The estimated cost is $146,000.

Los Angeles, Calif.—The Board of Education plans the construction of a two-story school on First and Vermont St. Estimated cost, $120,000. Hunt & Burns, 701 Laughlin Bldg., is Arch.

Los Angeles, Calif.—Contracts will be awarded about Oct. 1 by John F. Blee, Arch., 509 Union League Bldg., for the construction of a five-story, 118x132-ft. loft building at Third and Alameda St. for the Neptune Meter Co. The estimated cost is $135,000. Noted Apr. 8.

Norwalk, Calif.—(Official)—Bids were received by W. F. McClure, State Engr., 625 Forum Bldg., Sacramento, for the construction of a group of buildings for the Norwalk State Hospital for the Insane, as follows: John Mulder, $107,319; Cresmer Mfg. Co., $111,700; J. F. Atkinson, $112,281; L. G. Bergren & Son, $114,872; Los Angeles Planing Mill Co., $116,642; F. O. Engstrum Co., $117,500; Davidson Construction Co., $118,700; John Simpson & Co., $119,420; W. E. Kier Construction Co., $119,850; Nance & Phelps, $120,798; Alta Planing Mill Co., $121,338; Merchant's Realty & Investment Co., $125,450; Robert Jordan, $129,140; James H. Jacobs Co., $129,305; Winget Construction Co., $129,990; C. McNeill, $131,700; C. M. Jordan, $134,497; Weymouth Crowell, $139,900; James P. Dawson, $141,250; John Hayes and J. H. Judy, $159,946. George B. McDougall, Dept. of Engineering, Sacramento, is State Arch. Noted July 23, Aug. 6, Apr. 8 and 22.

Richmond, Calif.—The Y. M. C. A. plans to construct a building to cost about $50,000. Wilbur F. Pierce is interested.

San José, Calif.—Plans have been prepared for the construction of a three-story Y. W. C. A. building, estimated to cost $50,000. Ada Hillman is Acting Secy.

Susanville, Calif.—The County Supervisors have decided to construct a courthouse. The estimated cost is $80,000. Noted Feb. 11.

✚Winters, Calif.—The contract for the construction of a high school has been awarded to HAYES & CO., Sacramento. Estimated cost, $57,000.

Verdun, Que.—(Montreal post office)—The Department of Public Works, Ottawa, Ont., plans to construct a post office at Verdun. Estimated cost $100,000. R. C. Desrochers, Ottawa, is Secy.

✚Hamilton, Ont.—The City Council has awarded the contract for the construction of a hospital to the JAMES FRIED CO., at $90,529. Noted Apr. 22.

TWIN LAKES DAM, SALT LAKE CITY, UTAH
Types Nos. 1 and 2

Bids were received Apr. 21 by the Engineering Department, Salt Lake City, for the construction of the Twin Lakes Dam, Type No. 1, rubble concrete dam, and Type No. 2, reinforced-concrete dam, from: (A) James Stewart & Co.; (B) P. J. Moran Contracting Co.; (C) Sam Williams; (D) John Shea; (E) Ryberg Bros.; (F) Enoch Smith; (G) Bates & Rogers Construction Co.; (H) Stewart Engineering Corporation; (I) Morris-Knudson Co. The item bids for each type of construction were as follows:

TWIN LAKES DAM, SALT LAKE CITY, UTAH

Rubble Concrete Dam, Type No. 1—	A	B	C	D	E	F	G
200 cu.yd. earth and loose rock excavation	$2.25	$1.50	$4.00	$2.00	$1.00	$2.00	$2.00
600 cu.yd. solid rock excavation	3.50	4.00	6.40	3.50	3.00	5.00	3.50
20 cu.yd. concrete	15.00	20.00	17.25	13.50	14.00	15.00	12.50
9100 cu.yd. rubble concrete	7.20	7.20	7.41	8.50	8.75	10.00	10.25
1300 lin.ft. 2-in. pipe railing	1.25	1.06	0.93	0.85	2.00	0.80	1.00
1 set standard sluice gates	490.00	602.00	1100.00	800.00	1500.00	750.00	1200.00
Extended totals	$70,485	$70,610	$74,725	$82,025	$86,005	$96,490	$98,525

Reinforced Concrete Dam, Type No. 2—	A	B	C	D	E	F	G	H	I
500 cu.yd. earth and loose rock excavation	$2.25	$1.50	$4.00	$2.00	$1.00	$2.00	$2.00	$1.00	$1.50
500 cu.yd. solid rock excavation	3.55	4.00	6.40	3.50	4.25	5.00	3.50	3.00	4.00
1600 cu.yd. reinforced concrete, Class A	19.50	22.00	17.25	22.00	19.25	25.00	23.80	19.44	19.00
2400 cu.yd. reinforced concrete, Class B	16.00	15.00	16.25	16.25	14.00	21.00	21.60	15.10	16.20
1225 lin.ft. 2-in. pipe railing	1.25	1.06	0.93	0.85	2.00	0.80	1.00	1.25	1.00
1 set standard sluice gates	450.00	602.00	1100.00	800.00	1500.00	750.00	1200.00	500.00	1000.00
Trash rack in place	250.00	338.00	350.00	195.00	150.00	200.00	250.00	50.00	300.00
Extended totals	$74,731	$76,188	$74,389	$78,986	$71,125	$96,630	$95,345	$71,425	$74,555

STATE HIGHWAYS, SACRAMENTO, CALIF.

Bids were received Apr. 26 by the California Highway Commission, Forum Bldg., Sacramento, for constructing Division IV, Route 14, Section A of the State Highway in Contra Costa County, and Division V, Route 2, Section A, in Monterey County, from: (A) Bates, Borland & Ayer, Oakland; (B) Hoffman & McLaren, Oakland; (C) T. M. Burns, Sacramento; (D) Peterson & Grier, San Francisco; (E) James Fitzpatrick, Sacramento; (F) Taylor & Bertiner, Los Angeles; (G) W. J. Schmidt, Berkeley; (H) Twohy Bros. Co., San Francisco; (I) Blanchard-Brown Co., San Francisco; (J) W. A. Dontanville, Paso Robles; (K) Lon G. Hare, Salinas; (L) Highway Paving & Construction Co., Palto Alto; (M) Engineer's Estimate. The item bids were as follows:

MONTEREY COUNTY

	C	D	E	J	K	L	M
14,135 cu.yd. excavation, unclassified	$0.50	$0.60	$0.50	$0.49	$0.70	$0.85	$0.40
752 lin.ft. 12-in. corrugated iron pipe	1.00	0.50	0.60	0.50	0.35	0.50	0.40
40 lin.ft. 18-in. corrugated iron pipe	1.00	0.75	0.75	0.60	0.75	0.75	0.50
36 lin.ft. 24-in. corrugated iron pipe	1.00	1.00	1.00	0.70	1.25	1.00	0.55
16 cu.yd. concrete, Class "B" culverts and monuments	10.00	14.00	14.00	16.00	15.00	10.50	11.25
4830 cu.yd. concrete, Class "B" pavements	4.25	5.00	6.25	6.33	4.80	3.60	6.75
174 cu.yd. rubble masonry, retaining walls	10.00	7.00	4.00	7.00	8.00	2.50	3.80
850 lin.ft. guard rail	0.30	0.30	0.40	0.50	0.55	0.40	0.40
42 monuments, hauling and setting	2.00	1.50	1.00	2.00	1.00	1.00	0.50
Extended totals	$30,662	$34,833	$39,074	$39,908	$35,558	$30,830	$39,799

CONTRA COSTA COUNTY

	A	B	C	D	E	F	G	H	I	M
11,200 cu.yd. excavation, unclassified	$0.70	$0.80	$0.60	$0.50	$0.60	$0.60	$0.55	$0.74	$1.25	$0.75
350 lin.ft. 12-in. corrugated iron pipe	0.50	0.40	1.00	0.50	0.60	1.00	0.50	0.30	0.55	0.50
130 lin.ft. 15-in. corrugated iron pipe	0.50	0.50	1.00	0.60	0.75	1.50	0.60	0.35	0.65	0.60
50 lin.ft. 18-in. corrugated iron pipe	0.50	0.60	1.00	0.80	1.00	2.00	0.70	0.50	0.76	0.70
10 cu.yd. concrete, Class "B" culverts and monuments	10.00	9.00	10.00	15.00	15.00	12.00	10.00	10.00	5.55	12.00
6150 cu.yd. concrete, Class "B" pavement	2.75	3.40	4.00	4.10	4.50	3.20	3.60	2.64	3.80	3.00
9840 lin.ft. guard rail	0.30	0.25	0.30	0.30	0.40	0.50	0.35	0.38	0.30	0.30
13 monuments, hauling and setting	1.00	1.00	2.00	2.00	1.00	1.00	0.50	1.00	2.50	1.00
Extended totals	$28,082	$32,668	$34,928	$34,236	$38,851	$32,098	$32,138	$28,552	$40,725	$30,223

CATALOG NOTICES

Harrison Safety Boiler Works, Philadelphia, Penn. Cochrane Engineering Leaflet No. 18. Testing V-Notch Meters. Illustrated, 48 pp., 6x9 in.

Monighan Machine Co., 2036 Carrol Ave., Chicago, Ill. Bulletin No. 16-W. Walking drag line excavators. Illustrated, 16 pp., 9x11 in.

Jeffrey Mfg. Co., Columbus, Ohio. General Catalog No. 83. Elevating, conveying, crushing, screening, power transmission machinery. Illustrated, 384 pp., 6x9 in.

Pneumatic Placing Co., Inc., 45 Broadway, New York. Bulletins. Pneumatic conveying equipment. Illustrated.

Blaw Steel Construction Co., Pittsburgh, Penn. Bulletin No. 66. Blaw light wall forms. Illustrated, 32 pp., 6x9 in.

The Baker Mfg. Co., Springfield, Ill. Pamphlet. Maney four wheel scraper. Illustrated, 14 pp., 6x9 in.

North Western Expanded Metal Co., Old Colony Building, Chicago, Ill. Catalog. Kno-Burn expanded metal lath. Illustrated, 52 pp., 6x9 in.

Otis Elevator Co., Eleventh Ave. & 26th St., New Yor Catalog. Gravity spiral conveyors. Illustrated, 56 pp., 6 in.

The Brown Hoisting Machinery Co., Cleveland, Ohio. Ca alog U. Brownhoist transfer cars and larries. Illustrate 32 pp., 6x9 in.

The Watson-Stillman Co., 50 Church St., New Yor Sectional Catalog No. 92. Hydraulic forcing presses, et Illustrated, 128 pp., 6x9 in.

Kerr Turbine Co., Wellsville, N. Y. Bulletin No. 5 Economy exhaust steam turbines. Illustrated, 14 pp., 6x9 i

The C. D. Pruden Co., Baltimore, Md. Loose Leaf Catalo Portable steel buildings. Illustrated, 8x11 in.

The J. D. Fate Co., Plymouth, Ohio. Catalog No. 2 Plymouth gasoline industrial locomotives. Illustrated, 52 pp., 6x9 in.

The Deming Co., Salem, Ohio. Catalog J. Power pumps. Illustrated, 190 pp., 7x9 in.

CALIFORNIA STATE HIGHWAY, MONTEREY COUNTY
Division V, Route 2, Section H

Bids received Apr. 26 by the California State Highway Commission, Forum Bldg., Sacramento, for the construction of Division V, Route 2, 2, Section H, of the State Highway in Monterey County, from: (A) C. H. & A. W. Gorrill, Oakland; (B) Bates, Borland & Ayer, Oakland; (C) Highway Paving & Construction Co., Palo Alto; (D) L. F. Gerdetz, San Francisco; (E) James Fitzpatrick, Sacramento; (F) A. C. McLean Construction Co., San Francisco; (G) C. H. Hudson, Los Angeles; (H) Hoffman & McLaren, Oakland; (I) F. Rolandi, San Francisco; (J) Sandercock Transfer Co., San Luis Obispo; (K) Mahoney Bros. & Allinson and Cole Construction Co., San Francisco; (L) Frank L. Smith, Eureka; (M) Twohy Bros. Co., San Francisco; (N) W. A. Nontanville, Paso Robles; (O) Mesmer & Rice, Los Angeles; (P) W. B. Hunt & Sons, Alameda; (Q) Engineer's Estimate. The item bids were as follows:

CALIFORNIA STATE HIGHWAY, MONTEREY COUNTY

Div. V., Route 2, Sec. 8

	A	B	C	D	E	F	G	H
89,420 cu.yd. earth excavation	$0.49	$0.35	$0.35	$0.32	$0.45	$0.40	$0.38	$0.40
4990 cu.yd. loose rock excavation	0.90	0.75	0.90	0.75	0.80	0.70	0.65	0.80
1350 cu.yd. solid rock excavation	1.50	1.00	1.50	0.75	1.20	1.00	0.80	1.00
850 lin.ft. 12-in. corrugated iron pipe	0.55	0.90	0.65	0.55	0.50	0.50	0.45	0.40
120 lin.ft. 15-in. corrugated iron pipe	0.60	0.90	0.75	0.65	0.60	0.60	0.50	0.50
44 lin.ft. 18-in. corrugated iron pipe	0.65	0.90	0.85	0.80	0.75	0.75	0.55	0.60
28 lin.ft. 24-in. corrugated iron pipe	0.75	0.90	1.25	0.90	1.00	1.00	0.70	0.75
172 lin.ft. 30-in. corrugated iron pipe	1.00	0.90	2.00	1.30	1.25	1.50	0.80	1.00
35 lin.ft. 36-in. corrugated iron pipe	1.25	0.90	2.00	1.75	1.50	2.00	0.90	1.50
416 cu.yd. cement concrete, Class B (culverts and monuments)	12.00	15.00	10.75	15.00	13.00	18.00	13.00	9.00
10,620 cu.yd. cement concrete, Class B (pavement)	6.50	6.25	6.15	5.65	5.85	7.25	5.20	4.45
5400 lin.ft. guard rail	0.35	0.30	0.45	0.45	0.40	0.30	0.50	0.30
274 monuments, hauling and setting	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	$127,323	$112,023	$111,431	$103,207	$116,645	$127,874	$102,564	$94,679

	I	J	K	L	M	N	O	P	Q
89,420 cu.yd. earth excavation	$0.50	$0.45	$0.59	$0.35	$0.33	$0.52	$0.35	$0.39	$0.30
4990 cu.yd. loose rock excavation	0.85	0.50	0.59	0.38	0.65	0.75	0.45	0.55	0.50
1350 cu.yd. solid rock excavation	1.10	1.00	0.59	0.40	0.90	1.00	0.65	0.60	1.00
850 lin.ft. 12-in. corrugated iron pipe	0.60	0.50	0.60	0.60	0.40	0.45	0.53	0.50	0.40
120 lin.ft. 15-in. corrugated iron pipe	0.75	0.60	0.70	0.65	0.50	0.50	0.66	0.60	0.45
44 lin.ft. 18-in. corrugated iron pipe	1.00	0.70	0.80	0.70	0.55	0.65	0.78	0.70	0.50
28 lin.ft. 24-in. corrugated iron pipe	1.25	0.80	1.00	0.80	0.60	0.75	1.00	0.70	0.60
172 lin.ft. 30-in. corrugated iron pipe	2.00	0.90	1.25	0.90	0.70	1.00	1.35	0.70	0.70
35 lin.ft. 36-in. corrugated iron pipe	2.50	1.00	1.50	1.00	0.80	1.00	1.50	0.70	0.80
416 cu.yd. cement concrete, Class B (culverts and monuments)	20.00	11.00	14.00	12.00	12.00	12.00	15.00	10.00	10.00
10,620 cu.yd. cement concrete, Class B (pavement)	5.95	6.74	6.75	4.75	5.34	7.90	6.71	6.25	5.30
5400 lin.ft. guard rail	0.40	0.45	0.40	0.40	0.40	0.50	0.50	0.50	0.40
274 monuments, hauling and setting	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.50	0.50
Extended totals	$125,490	$123,683	$137,366	$92,435	$98,693	$144,154	$115,771	$112,493	$108,094

REINFORCED-CONCRETE TRUNK LINE SEWER—SACRAMENTO, CALIF.

✦Bids were received Apr. 29 by the Engineering Department, Sacramento, for the construction of a reinforced-concrete trunk line sewer and appurtenances, Contract No. 72, from: (A) Peterson & Grier; (B) Graff Construction Co., Sacramento; (C) Tibbetts Pacific Co.; (D) Clinton Fireproofing Co. of California; (E) Edward Malley; (F) Williams & Belsar; (G) Carl Ehrhart; (H) Teichert & Ambrose, Sacramento; (I) Ross Construction Co., Sacramento; (J) McGillvary Construction Co., Sacramento; **(K) JAMES KENNEDY**, Los Angeles (awarded contract); (L) Carnahan & Mulford; (M) F. Rolandi; (N) Contra Costa Construction Co., Berkeley; (O) Matthews Construction Co., Sacramento; **(P) Thomas S. Hutton**; (Q) Wrightson, Anderson & Yost, Sacramento. All bidders of San Francisco unless otherwise stated. The item bids were as follows:

	A	B	C	D	E	F	G	H	I
3447 lin.ft. 72-in. reinforced-concrete sewer	$16.00	$15.00	$10.70	$11.27	$18.24	$16.30	$13.27	$12.60	$14.00
1143 lin.ft. 69-in. reinforced-concrete sewer	12.00	8.00	8.75	6.37	8.11	13.86	9.86	9.80	13.50
2012 lin.ft. 66-in. reinforced-concrete sewer	9.00	8.00	7.90	5.75	7.63	11.45	7.98	7.80	10.00
1294 lin.ft. 63-in. reinforced-concrete sewer	8.00	8.00	7.40	5.15	6.91	10.76	8.00	7.70	8.50
1280 lin.ft. 60-in. reinforced-concrete sewer	7.50	8.00	6.40	4.61	6.27	10.26	8.00	7.20	8.00
1907 lin.ft. 57-in. reinforced-concrete sewer	7.00	8.00	6.20	4.53	5.75	9.75	7.00	6.70	7.00
125 lin.ft. 36-in. reinforced-concrete sewer	7.00	7.00	4.50	3.89	6.00	8.01	4.00	5.30	6.00
15 lin.ft. 26-in. riveted steel pipe and fittings	7.00	7.00	3.00	3.33	5.23	4.29	5.00	4.00	3.00
10 lin.ft. 14-in. vitrified pipe sewer	3.00	3.00	1.00	1.50	2.50	1.76	2.00	1.20	2.50
27 concrete manholes	80.00	45.00	50.00	45.00	50.00	58.75	35.00	50.00	100.00
1 concrete junction chamber	200.00	215.00	120.00	125.00	200.00	235.00	181.00	120.00	100.00
1 36-in. concrete inlet	10.00	70.00	12.00	68.00	5.00	10.00	50.00	20.00	100.00
1 26-in. concrete inlet	8.00	60.00	9.00	14.00	5.00	9.00	30.00	10.00	100.00
1 14-in. vitrified pipe inlet	5.00	15.00	4.00	14.00	2.50	1.00	30.00	10.00	10.00
1 30-in. iron, bronze-faced flap valve and head works	150.00	230.00	215.00	125.00	100.00	88.00	100.00	80.00	100.00
Extended totals	$123,820	$115,608	$94,697	$81,013	$118,190	$143,727	$108,939	$104,608	$122,326

	J	K	L	M	N	O	P	Q
3447 lin.ft. 72-in. reinforced-concrete sewer	$11.40	$9.70	$16.91	$11.00	$17.30	$10.92	$13.90	$14.06
1143 lin.ft. 69-in. reinforced-concrete sewer	9.03	7.52	10.45	10.00	13.00	8.73	12.75	8.92
2012 lin.ft. 66-in. reinforced-concrete sewer	7.79	6.52	8.55	7.00	11.50	8.33	11.95	8.70
1294 lin.ft. 63-in. reinforced-concrete sewer	7.32	5.66	8.24	6.00	11.25	7.58	10.94	8.32
1280 lin.ft. 60-in. reinforced-concrete sewer	7.06	5.30	7.36	6.00	11.00	7.02	9.00	7.64
1907 lin.ft. 57-in. reinforced-concrete sewer	6.43	4.82	7.16	5.50	10.70	7.23	8.75	7.48
125 lin.ft. 36-in. reinforced-concrete sewer	4.43	3.70	5.03	4.00	6.00	5.42	5.00	5.68
15 lin.ft. 26-in. riveted steel pipe and fittings	4.26	3.38	3.60	4.00	4.00	7.00	5.00	5.00
10 lin.ft. 14-in. vitrified pipe sewer	2.50	2.00	2.70	3.00	4.00	5.00	3.00	3.00
27 concrete manholes	54.00	60.00	54.00	40.00	60.00	55.00	55.00	40.00
1 concrete junction chamber	175.00	200.00	100.00	200.00	300.00	215.00	500.00	250.00
1 36-in. concrete inlet	35.00	50.00	20.00	75.00	30.00	35.00	50.00	15.00
1 26-in. concrete inlet	25.00	30.00	13.00	70.00	30.00	25.00	40.00	10.00
1 14-in. vitrified pipe inlet	10.00	20.00	7.00	70.00	30.00	20.00	7.00	5.00
1 30-in. iron, bronze-faced flap valve and head works	200.00	150.00	209.00	100.00	100.00	195.00	500.00	75.00
Extended totals	$98,607	$81,052	$123,690	$91,548	$149,632	$99,769	$132,204	$113,291

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS

RAILWAYS

New York—The Newtonfalls Paper Co. is having surveys made for the construction of a railway from Newtonfalls, N. Y., to its timber tract. James P. Brownell, Carthage, N. Y., is Engr.

South Carolina—Southern Ry.—This company plans to construct a storage yard at Charleston, S. C., in connection with the export coal terminals now being constructed. B. Herman, Washington, D. C., is Ch. Engr.

✚Florida—Palm Beach & Everglades Ry.—This company has awarded a contract to EVERETT P. MAULE, West Palm Beach, for the construction of the first 23 miles of the proposed line from Palm Beach to Lake Okeechobee. Noted Mar. 18.

Ohio—John C. Lake, Pres., Monitor Sad Iron Co., is interested in the construction of a railway from Custaloga to Bigprairie, Ohio.

Ohio—New York Central R.R.—This company has completed surveys for the construction of a cutoff from Doughton to Mosier, Ohio, about six miles. The estimated cost is $500,000. G. C. Cleveland, Cleveland, Ohio, is Ch. Engr.

South Dakota—According to press reports the construction of a railway to connect Waubay, Greenville, Effington, S. D., and Hankinson, N. D., is under consideration.

Texas—International & Great Northern Ry.—Plans are being made by this company for the expenditure of $1,000,000 for the improvement of its lines in Texas. O. H. Crittenden, Houston, Tex., is Ch. Engr.

Arizona—Tucson, Cornelia & Gila Bend R.R.—This company has been incorporated to construct a railway from Gila Bend to Tucson. The incorporators include L. D. Ricketts and J. C. Greenway, Warren, Ariz., and Walter Douglas, Bisbee, Ariz.

ELECTRIC RAILWAYS

Springfield, Mass.—Plans are under consideration by the Springfield St. Ry. Co. for extending its line on St. James Ave., Springfield, to East St., Chicopee. R. G. Tyler is Ch. Engr.

Syracuse, N. Y.—The New York State Rys. Co. has been granted a franchise to construct a single track line on Elm St. from Shuart to Burnet Ave. B. E. Tilton, Syracuse, is Gen. Mgr.

Franklin, Penn.—The Johnstown Traction Co. is making preliminary arrangements for the extension and improvement of its line in Franklin. G. N. Smith is Ch. Engr.

Gretna, La.—Edward L. Slattery and associates are interested in a plan to construct a two-mile street railway from the ferry landing in Gretna.

Rayville, La.—Charles Titche, Pres. Chamber of Commerce of Monroe, and associates contemplate constructing an electric railway from Rayville to Alto and Mangham.

Mayfield, Ky.—R. H. McNeely, Paducah, Ky., is interested in the construction of an electric railway from Mayfield, Ky., to Humboldt, Tenn.

Cleveland, Ohio—The Cleveland Ry. Co. will construct a three-mile extension to its West 25th St. line on State Rd. Estimated cost, $24,000. Charles H. Stanley is Pur. Agt.

Chicago, Ill.—Plans are being prepared by the Chicago Rys. Co. for extending its Chicago Ave. line from North Clark St. to the lake front. Frank L. Hupp is Secy.

Racine, Wis.—The Milwaukee Electric Ry. & Light Co. is considering plans for the extension of its line on Asylum Ave. in Racine. F. V. Bentz is Pur. Agt.

St. Paul, Minn.—The St. Paul City Ry. Co. is considering plans for the extension of its lines on the west side of the city to connect with the Seventh St. and Hill St. lines at Seven Corners via the High Bridge; also a car line in Main Ave. from Seven Corners to Tenth St. and on Rice St. from Rondo to University St. W. Whiteford is Pur. Agt.

Cedar Rapids, Iowa—The Iowa Ry. & Light Co. contemplates the construction of an additional track on Fourth Ave. from Second to Third St. William G. Dows is Gen. Mgr.

Clinton, Iowa—Plans are being considered by the Clinton St. Ry. Co. for the extension of its lines to South Clinton. B. Bohnson is Supt. and Pur. Agt.

Kansas City, Mo.—The Metropolitan St. Ry. Co. has applied to the City Council for a franchise to extend its 13th St. line in Kansas City.

Wichita, Kan.—Plans are being prepared by the Wichita R.R. & Light Co. for the extension of its lines to McLean Park. D. I. Hayworth, Wichita, is Ch. Engr.

Sheridan, Wyo.—Plans are being prepared by the Sheridan Ry. Co. for the construction of a one-mile extension to its line. C. F. Smith is Supt.

Cove, Ark.—J. P. Harpending and associates contemplate constructing an electric railway from the Narrows, Okla. to Cove, Ark.

✚Provo, Utah—The Salt Lake & Utah R.R. Co. has awarded the contract to WILLIAM SMITH, Salt Lake City, for the construction of an electric railway from Provo to Springville, about six miles. Noted Jan. 15 and Apr. 29.

Mill Valley, Calif.—The Marin County Electric Ry. Co. will build an electric road up Cascade Cañon. At present one mile of the road will be constructed, $20,000 having been raised for this purpose.

Toronto, Ont.—A committee of residents of West Toronto has petitioned the City Council to construct a municipal car line on Pacific and Annette St., West Toronto, to connect with the Bloor St. line.

LIGHT, HEAT AND POWER

Lynn, Mass.—It is reported that contracts will be awarded about June 20 by H. L. Gilman and W. A. Armes, Archs., 8 Congress St., Boston, for the construction of a group of buildings for the Lynn Mill Corporation, including a power plant estimated to cost about $100,000.

New York, N. Y.—(Borough of Manhattan)—Bids will be received until June 1 by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., New York, for additions, alterations and repairs to the electrical equipment in Public Schools 25, 31, 44, 62, 177 and 188, Borough of Manhattan.

St. Clair, Penn.—The Borough Council is considering plans for improving the municipal electric-light plant. J. J. Hughes is Supt. of the plant.

Cumberland, Md.—The City Council is considering improvements and additions to the municipal electric-light plant to cost about $15,000. The plans include the installation of a high-speed steam turbine, directly connected, and replacing the present street-lamps with new ones. W. M. Roberts, Jr., is Gen. Mgr. of the municipal plant.

Waynesville, N. C.—At an election held May 4, the citizens voted in favor of issuing $25,000 in bonds to be used for the installation of a municipal electric-light and power plant. Noted Apr. 22.

★New Orleans, La.—(Official)—Bids will be received by the Board of Commissioners, Port of New Orleans, New Orleans Court Bldg., until 8 p.m., June 9, for furnishing and installing three horizontal return tubular boilers in the cotton warehouses and terminal on the east bank of the Mississippi River, between Valence and Somat St. Ernest M. Loeb is Pres. Bd. of Comrs.

Gleason, Tenn.—The citizens have voted to issue $10,000 in bonds for the purpose of constructing a municipal electric-light plant.

Chagrin Falls, Ohio—(Official)—Bids will be received until noon, June 7, by the Board of Trustees of Public Affairs for one horizontal, duplex, direct-acting, non-condensing pumping engine, and one return tubular, brick-set boiler, 54 in. in diameter and 14 ft. long. L. G. Bradley is Clk. of Bd.

Oberlin, Ohio—It is reported that the City Council is considering the installation of a municipal electric-light plant and water-works system.

Shelby, Ohio—The City Council and the Board of Public Affairs have decided to install a municipal electric-light and power plant to cost about $40,000.

Zanesville, Ohio—C. C. Outland, Zanesville, and E. Huntzinger, Piqua, Ohio, are organizing a stock company for the purpose of establishing an electric-light plant at Zanesville.

Holland, Mich.—The lowest bid submitted to the City Council for the construction of a municipal electric-light plant and power station was that of J. H. Sullivan, Grand Rapids, at $14,300. Noted Mar. 11.

Oshkosh, Wis.—The three lowest bids for the installation of heating and ventilating equipment in the new high school building were as follows: General Heating & Ventilating Co., Milwaukee, $20,437, heat regulator, $2070 additional; Downey Heating & Supply Co., Milwaukee, $20,780 and $2170; B. W. Dukerschein Co., Oshkosh, $21,080 and $2220.

Alta Vista, Iowa—(Official)—Bids will be received until June 7 by the Town of Alta Vista for the construction of an electric transmission line and distribution system. F. Rabe is Town Clk.

Charter Oak, Iowa—Bonds have been sold, and plans are being prepared for the installation of a municipal electric-light plant in Charter Oak.

Wilton Junction, Iowa—The City Council has rejected the offer made by the Davenport & Muscatine Ry. Co., Davenport, for the construction of a transmission line to Wilton Junction. The municipal plant will be rebuilt. George Bannock is Mayor.

Muscotah, Kan.—Preliminary plans are being prepared for the establishment of a municipal electric-light plant in Muscotah.

✚Wellington, Kan.—The contracts for the construction of a central power station, cooling pond with Louvre fence, substation, 250,000-gal. reinforced-concrete reservoir, etc., have been awarded to J. H. MITCHELL & SON, Wellington, at $21,992. The contract for a 125-ft. reinforced-concrete chimney with fire-brick lining was awarded to the GENERAL CONCRETE CONSTRUCTION CO., Chicago, Ill., at $1570.

Cody, Wyo.—It is reported that the City Council has engaged the Billings Engineering Co., Billings, Mont., to prepare plans for the installation of a municipal electric-light plant and water-works system. B. W. Bennett is City Clk.

Benton, Ark.—See item under "Water Supply-Irrigation."

✚San Antonio, Tex.—The Commissioners Court of Bexar County has awarded the contract for the installation of a steam-driven power, pumping and electric plant in the Bexar County Home for the Aged and the Juvenile Home, to the SAN ANTONIO MACHINE & SUPPLY CO.

Burley, Idaho—(Official)—Bids will be received until June 3 by Wilson & Cutting, Engr., 325 Electric Bldg., Butte, Mont., for the installation of an electric-heating system (indirect with fan) in the High School at Burley. The building contains 40 rooms.

Miami, Ariz.—See item under "Sewers."

Ellensburg, Wash.—Bids were received by the City Council May 14 for the construction of a power plant, including building, turbine equipment and remodeling of the present plant as follows: Kraner Co., Portland, Ore., $55,479; Spokane Engineering Co., Spokane, $42,217 (not including turbine); Hunt, Mirk & Co., Spokane, $58,577, alternate, $59,987; Charles G. Moore & Co., Seattle, $72,745; Butler Construction Co., Seattle, $54,185 (not including turbine); P. E. McHugh, Tacoma, $62,998. Reuben Crimp is City Clk. Noted Feb. 25, Apr. 1 and 29, May 13.

Republic, Wash.—The West Virginia Mining Co., operating the Lone Surprise mine, near Republic, will install a 200-hp. compressor, a new Diesel engine and an electric hoist.

Blenheim, Ont.—The rate-payers have voted in favor of a bylaw providing for the construction of a hydro-electric system estimated to cost about $14,000. P. S. Shillington is Town Clk. Noted Apr. 22.

Chatsworth, Ont.—A site has been purchased and plans will be prepared at once for a new hydro-electric transmission station. W. G. Reilly will be in charge of the work.

Calgary, Alta.—It is reported that the Alberta Hydro-Electric Power Co. is considering the construction of a series of six dams and power houses to cost about $2,000,000. A. W. Ellson Fawkes, 518 Burns Bldg., Calgary, is Consult. Engr.

BRIDGES

Enosburg Falls, Vt.—(Official)—Bids will be received until 2 p.m., June 4, by the Board of Selectmen for the construction of a 110-ft. reinforced-concrete bridge across the Missisquoi River at Enosburg Falls. The estimated cost is $9000. F. W. Spicer is Chn. Bd. of Selectmen. M. L. Sanders, White River Junction, Vt., is Engr. Noted Apr. 1.

+Lawrence, Mass.—(Official)—The Board of Commissioners of Essex County has awarded the contract for the construction of a bridge over the Shawsheen River at Merrimac St. to W. N. PIKE, Lawrence, at $21,621. List of bidders noted May 20.

Pittsfield, Mass.—It is reported that the Finance Committee of the City Council has recommended an appropriation of $18,000 for the construction of a bridge over the Housatonic River in the Lakewood section. A. B. Farnham is City Engr.

Waterbury, Conn.—Bids will be received until 8 p.m., June 1, by the Board of Public Works, Lilley Bldg., for the construction of a reinforced-concrete arch across the Naugatuck River at Bank St. It will be 54 ft. wide with three spans, one of 60 ft. and two of 50 ft. each. The estimated cost is $80,000. Bids will be received at the same time for removing the present steel truss bridge at Bank St., and re-erecting it across the Naugatuck River at Freight St. Robert A. Cairns is City Engr. Noted Jan. 21 and Apr. 8.

Westport, Conn.—Plans are being prepared by J. F. Vincent, of the Strauss Bascule Bridge Co., 30 Church St., New York, N. Y., for a new bridge at Westport. It will be 300 ft. long and 40 ft. wide. F. M. Salmon is Chn. of the Com.-in-Charge.

+Warsaw, N. Y.—Contracts for the construction of four bridges on the line of the new Wyoming-Pearl Creek State Rd. have been awarded to the WARSAW CONSTRUCTION CO. The largest bridge will be over Oatka Creek in the Town of Covington, and will cost $6000. It will be of reinforced concrete, 106 ft. long.

New Providence, N. J.—Plans are being prepared for a new bridge over the Passaic River between New Providence and Passaic Townships. The estimated cost is $10,000. It will replace the Townley Bridge which has been condemned by the engineers of Union and Morris Counties. Jacob L. Bauer, Elizabeth, is Engr. of Union County.

+Sea Isle City, N. J.—(Official)—The Board of Chosen Freeholders of Cape May County has awarded the contract for the construction of a Strauss type double-lift bridge to the BRIDGETON CONSTRUCTION CO., Bridgeton, at $27,480. Noted Apr. 22 and May 13.

Trenton, N. J.—The Board of Chosen Freeholders of Mercer County has instructed the County Engineer to prepare plans for a new steel bridge over Doctor's Creek, Hamilton Township. Theodore Tobish is County Engr.

+Charleroi, Penn.—(Official)—The Mercantile Bridge Co. has awarded a contract to the UNITED STATES WOOD PRESERVING CO., 165 Broadway, New York, at $15,000, for lumber and blocks for reflooring the Monessen-Charleroi Bridge. William H. Stamm, Charleroi, is Ch. Engr. Noted May 20.

Harrisburg, Penn.—Bids will be received until June 4 by the County Controller of Dauphin County for the construction of a concrete bridge over Wiconsico Creek at Lykens, and for a steel truss bridge over Armstrong Creek five miles above Halifax.

Pittsburgh, Penn.—It is reported that the City Council is considering ordinances authorizing the rebuilding and remodeling of the Greenfield Ave. Bridge at an estimated cost of $11,000, and the Herron Ave. Bridge at a cost of about $42,000. Robert Swan is City Engr.

Keller, Va.—(Official)—Bids will be received until noon, June 3, by S. W. Ames, care of bank, Keller, for the construction of a wooden beam bridge over Occohannock Creek in Accomac County. It will be about 612 ft. long with a 16-ft. roadway. G. P. Coleman, Richmond, is State Highway Comr.

Woodstock, Va.—(Official)—Bids will be received until noon, June 7, by the Clerk of the Circuit Court of Shenandoah County, for the construction of a 300-ft. bridge over the North Fork of the Shenandoah River between Warren and Shenandoah Counties.

+Louisville, Ky.—The Jefferson County Fiscal Court h awarded the contract for the construction of a reinforce concrete bridge over Floyd's Fork to the HOKE CO., Loui ville, at $15,222.

Bucyrus, Ohio—(Official)—Bids will be received until noo June 12, by the Board of Commissioners of Crawford Count for the construction of three county bridges; The Parch Bridge over the Sandusky River in Dallas Township; th McCurdy Bridge over the Sandusky River in Liberty Town ship; an extension to the Mary St. Bridge over the Sandusk River in the City of Bucyrus. H. A. Biebrghauser is Count Audr.

Cincinnati, Ohio—(Official)—Bids will be received until noon, June 7, by Philip Fosdick, Dir. of Pub. Ser., for the reconstruction and repair of bridges in Mt. Washington. Parke S. Johnson is Secy. Dept. of Pub. Ser.

+Cleveland, Ohio—(Official)—The contract for painting various city bridges has been awarded to the LAMBROU STRUCTURAL STEEL PAINTING CO., Williamson Bldg., Cleveland. Noted May 13.

+Fremont, Ohio—The Board of Commissioners of Sandusky County has awarded the contract for the construction of the Tindall Bridge over the Sandusky River in Ballville Township to the CROGHAN CONSTRUCTION CO., P. O. Box 178, Fremont, at $14,690. The bridge will consist of two 166-ft. steel riveted truss spans on concrete substructure. Noted Aug. 27, Oct. 1 and Dec. 10, 1914; Feb. 25 and Apr. 8, 1915.

Hamilton, Ohio—Bids will be received until June 9 by W. W. Crawford, Audr. of Butler County, for the construction of a reinforced-concrete bridge across Gregory's Creek at Hughes Station, Liberty Township.

Lebanon, Ohio—The Board of Commissioners of Warren County has passed resolutions for the construction of a low truss steel bridge over the North Branch of Turtle Creek at Main St., and a concrete substructure of a steel bridge over the same stream at West St., Lebanon. The estimated cost of the structures is $4311 and $5251 respectively. John M. Mulford is County Audr.

+Logan, Ohio—(Official)—The Board of Commissioners of Hocking County has awarded the contract for the superstructure of a bridge over Rush Creek in Marion Township to the CHAMPION BRIDGE CO., Wilmington, Ohio. Noted May .6

+Youngstown, Ohio—The Youngstown Sheet & Tube Co. has awarded a contract to the McCLINTIC-MARSHALL CO., Pittsburgh, Penn., for the construction of a single-track broad gage steel railway trestle across the Mahoning River from the bessemer plant to the site of the proposed byproduct coke ovens.

Zanesville, Ohio—(Official)—Bids will be received until 11 a.m., June 7, by the Board of Commissioners of Muskingum County for the construction of the steel superstructure of a bridge over the canal towpath between Trinway and Adams Mills in Cass Township. Fred C. Werner is Clk. of County Comrs.

+Converse, Ind.—(Official)—The Board of Commissioners of Miami County, Peru, has awarded the contract for the construction of a bridge at Converse to the ROCHESTER BRIDGE CO., Rochester, Ind., at $5535. Noted Apr. 15.

+East Chicago, Ind.—(Official)—The Board of Commissioners of Lake County, Crown Point, has awarded the contract for the construction of a Strauss type trunnion bascule bridge over the canal at 155th St., East Chicago, to the PHEE CONSTRUCTION & ENGINEERING CO., 122 South Michigan Ave., Chicago, Ill., at $59,000. Noted Apr. 29.

+Carthage, Ill.—(Official)—The Highway Commission of Hancock County has awarded the contract for a steel bridge on concrete abutments between Lima Township, Adams County, and Walker Township, Hancock County, to J. K. McCOLIN, Lewistown, Mo., at $4995. Other bidders were: Decatur Bridge Co., Decatur, $6718; East St. Louis Bridge Co., East St. Louis, $5278; Central States Bridge Co., Indianapolis, Ind., $5624; Illinois Steel Bridge Co., Jacksonville, $6600; E. A. Weaver & Son, Clayton, $6700; Michelman Steel Co., Quincy, $6650. Noted May 13.

Manitowoc, Wis.—Press reports state the Board of Commissioners of Manitowoc County will spend more than $30,000 for bridge construction during the summer.

+Clarion, Iowa—(Official)—The Board of Supervisors of Wright County has awarded the contract for the construction of eight county bridges to the DOBSON CONSTRUCTION CO., Nora Springs, at $8921. Other bidders were: Iowa Bridge Co., Des Moines, $13,561; Pickens Engineering & Construction Co., Sioux City, $14,400; Koss Construction Co., Des Moines, $13,490. Noted May 13.

+Council Bluffs, Iowa—The City Council has awarded the contract for the construction of a concrete arch across Indian Creek on East Broadway near the city limits to E. A. WICKHAM, Council Bluffs, at $5785. Noted May 6.

Montezuma, Iowa—(Official)—Bids will be received until 1:30 p.m., June 7, by W. C. McKee, Audr. of Poweshiek County, for the construction of nine steel bridges, one concrete slab and 15 reinforced-concrete culverts. C. E. Olson, Montezuma, is County Engr.

Great Bend, Kan.—(Official)—Bids will be received until noon, June 9, by the Board of Commissioners of Barton County for the construction of four county bridges: Mecklen Bridge in Buffalo Township; Henry Zimmer Bridge and Kruckenberg Bridge, both in Clarence Township, and the Underwood Bridge in Homestead Township. C. F. Younkin is County Clk.

Junction City, Kan.—The Commissioners of Geary County have ordered the construction of four new reinforced-concrete bridges, two over Dry Creek, and one each over Lyon's and McDowell Creeks.

Kansas City, Kan.—The Board of Commissioners of Wyandotte County has approved plans for the Central Ave. Bridge across the Kaw River. The structure will be of reinforced concrete, and will carry double street car tracks, a roadway and sidewalks. The estimated cost is $500,000, of which the Metropolitan St. Ry. Co. will pay a part. R. L. McAlpine is County Engr.

✚**Manhattan, Kan.**—(Official)—The Board of Commissioners of Riley County has awarded contracts to J. A. JOHNSON, Junction City, for three bridges, and to WHITEACRE, MOORE & WIAND, Manhattan, for three bridges. The total cost is $4387. Noted Apr. 29.

Ponca, Neb.—Bids will be received until 2 p.m., June 11, by A. N. Porter, Clk. of Dixon County, for the construction and repair of county bridges for a period of one year.

✚**Jasper, Ark.**—The Commissioners of Newton County have awarded the contract for a steel bridge across the Big Buffalo River to M. K. ORR, Harrison, at $24,000.

Galveston, Tex.—It is reported that the Gulf, Colorado & Santa Fé Ry. has decided to spend about $55,000 for new bridges, trestles and culverts. F. Merritt, Galveston, is Ch. Engr.

Eufaula, Okla.—It is reported that the Missouri, Kansas & Texas Ry. Co. has authorized the construction of a 1000-ft. bridge over the South Canadian River near Eufaula. The estimated cost of the bridge, with some other improvements, is $500,000. L. F. Lonnbladh, Dallas, Tex., is Ch. Engr.

Bellingham, Wash.—Bids will be received until May 29 by the Board of Commissioners of Whatcom County for the construction of a steel bridge across Deer Creek on the Northwest Diagonal Rd. The estimated cost is $11,000. C. M. Adams is County Engr. W. D. Wallace is County Clk.

Seattle, Wash.—Bids will be received until 10 a.m., June 8, by Byron Phelps, Clk. Bd. of Comrs. of King County, for the construction of the Landsburg Bridge. It will be of steel, 90 ft. long, with concrete piers. The estimated cost is $10,000.

Stevenson, Wash.—Bids will be received until June 8 by Charles H. Nellor, Audr. of Skamania County, for the construction of a concrete bridge over Nelson Creek on the Ivatot Rd. H. Bueche is County Engr.

Tacoma, Wash.—The City Council has instructed the City Engineer to prepare plans for a 650-ft. wooden bridge across the gulch at East 34th St. The estimated cost is $14,000. W. C. Raleigh is City Engr.

Burlingame, Calif.—The City Trustees have decided to replace 10 wooden bridges over the creeks and ravines of the Easton section of the city with reinforced-concrete structures of the ornamental type. Eric Wold is City Engr.

Berlin, Ont.—(Official)—Bids are being received by Bowman & Connor, Civil Engr., Berlin, for the construction of two concrete bridges in Waterloo Township.

Woburn, Ont.—The Township Council of Scarboro Township has approved plans for a concrete bridge over the Rouge River at Woburn. The estimated cost is $22,000. F. Barber, 57 Adelaide St. E., Toronto, is Engr.

York, Ont.—(Official)—Bids will be received until noon, June 7, by Frank Barber, 57 Adelaide, St. E., Toronto, for the construction of a reinforced-concrete beam bridge on Lansing Sideroad, about one mile west of Yonge St., Township of York.

WATER SUPPLY—IRRIGATION

Lawrence, Mass.—The Municipal Council has authorized the appointment by Mayor John P. Kane of a commission of three to secure a new water supply.

✚**Newton, Mass.**—The contract has been awarded by the Metropolitan Water and Sewerage Board to CHARLES A. KELLY, Somerville, at $27,177, for laying c.-i. water pipe. Noted May 20 under Boston.

Salem, Mass.—(Official)—Bids were received May 17 for constructing a reinforced-concrete reservoir as follows: A. G. Tomasello, Dorchester, $68,455; Sessler-Weaver Co., $72,978; Middlesex Contracting Co., $78,290; David J. Sheehan Co., $86,590; W. M. Bailey Co., $87,173; Stuart & Sons Co., $88,387; C. M. Leach, $91,370; Bruno & Petitti, $91,890; Fred T. Ley, $97,596 (informal); W. T. Ryan Contracting Co., $98,190; Davis & Brock, $102,870. Noted May 13.

✚**Salem, Mass.**—The contract for furnishing 26,000 ft. of 30-in. c.-i. pipe has been awarded to WARREN PIPE & FOUNDRY CO. at $23.50 per ton. Hazen & Whipple, New York, N. Y., is Engr.

Hartford, Conn.—Bids for the new gravel road north of the Nepaug reservoir in the town of New Hartford, known as Contract 8, were received by the Board of Water Commissioners, C. M. Saville, Ch. Engr., May 17, as follows: Middlesex Contracting Co., North Adams, Mass., $26,917; Perini Construction Co., Ashland, Mass., $28,397; Piersen Engineering & Construction Co., Hartford, $31,855; Louis Longhi & Bro., Torrington, $31,894; John Arborio, 172 Congress Ave., New Haven, $31,970; Leonardo Suzio, Meriden, $32,048; Amos D. Bridge's Sons, Inc., Hazardville, $32,611; Connecticut Good Roads & Construction Co., New Britain, $32,686; John de Michiel & Bro., Torrington, $34,780; O'Brien Construction Co., Madison Ave., New York, N. Y., $37,620; Coleman Bros., Boston, Mass., $39,102; A. D. Ambrosia & Co., Hartford, $40,061; Edward Balf Co., Hartford, $42,164; D. O'Connell's Sons, Holyoke, Mass., $42,630; Fred T. Ley Co., Inc., Springfield, Mass., $44,260 and Alco Contracting Co., Boston, Mass., $46, 320. Noted Apr. 29.

Madrid, N. Y.—Bids will be received until May 31 by E. E. Griffith, Secy., Bd. of Water Comrs., for the construction of a water system. Noted Feb. 25 and Mar. 25.

Manchester, N. Y.—The citizens, at a recent election, voted in favor of constructing a water system. Charles C. Hopkins, Cutler Bldg., Rochester, is Engr. Noted Sept. 17 and Oct. 15.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were received May 20 by William Williams, Comr. of Water Supply, Gas and Electricity for laying water mains in East 63rd, 79th and East 82nd St. and in Third Ave., as follows: Beaver Engineering & Contracting Co., $46,925; Soraci Contracting Co., $44,857; Brady Oltarsh Construction Co., $51,121; Melrose Construction Co., $48,489; Rogers & McManus, $42,651; Joseph J. B. LaMarsch, $54,535; James W. Maloney, $48,805; F. N. Lewis, $49,896; Lawrence Contracting Co., $49,444; Hanover Contracting Co., $49,786; Louis D. Gregory, $44,080; Knight & DiMicco, $44,711. Noted May 13.

✚**Schenectady, N. Y.**—The contract has been awarded by the Board of Contract and Supply to BROWN & LOWE, Schenectady, at $6352, for alterations at the Rotterdam pumping station.

Atlantic City, N. J.—(Official)—No bids were received May 19 by the Director of Revenue and Finance for the purchase of $125,000 in bonds. The proceeds was to have been used for the extension of the water system. B. I. Townsend is Controller. Noted May 13.

Harrison, N. J.—Bids will be received until 2 p.m., June 1, by the Hudson County Park Commissioners, 1 Exchange Pl., Jersey City, for the completion of a filtration plant at West Hudson Park, Harrison, and for a pumping station at the West Hudson Park.

Irvington, N. J.—According to press reports Alexander Potter, 50 Church St., New York, N. Y., will discontinue his investigation of the plant of the Clinton Water Co. Noted May 13.

Harrisburg, Penn.—The Thompson bill, appropriating $1,500,000 for the water supply, has been passed by the Senate. About $300,000 a year will be expended, beginning June 1, 1917. The work includes the construction of a dam in Crawford County and the construction of a reservoir. Noted Oct. 15, 1914.

★**Lock Haven, Penn.**—(Official)—Bids will be received until 1 p.m., June 14, by Allen Sterner, Supt. of Parks and Pub. Property, for constructing a portion of storage dam No. 1 on McElhattan Run, Wayne Township.

Mifflinburg, Penn.—(Official)—An election will be held June 22 to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a 5,000,000-gal. reinforced-concrete reservoir. Alexander Potter, 50 Church St., New York, N. Y., is Engr. Noted May 20.

Timberville, Va.—The Timberville Water Co. has been incorporated by C. J. Smucker, Pres., and others, with $25,000 capital, according to press reports, and will construct a water system.

Shepherdstown, W. Va.—(Official)—Bids will be received until June 10 by A. G. Alder, Engr., Shepherdstown Light & Power Co., for constructing a water system. The estimated cost is $17,000. Noted Jan. 28 and Mar. 18.

Wheeling, W. Va.—(Official)—The citizens, at a recent election, defeated the bond issue for $640,000, the proceeds of which was to have been used for the installation of a Smith slow sand filtration plant. D. G. Brown is Clk. Noted Mar. 25 and Apr. 29.

Hertford, N. C.—Bids will be received until June 8 by W. C. Winslow, Clk., Bd. Town Comrs., for the purchase of $17,000 in bonds, the proceeds of which will be used for the construction of a water system.

✚**Alma, Ga.**—The contract has been awarded by the city to B. F. ROBERTS, Macon, at $10,660, for constructing a water system, material furnished by the city. Noted Mar. 18.

Dawson, Ga.—An election will be held June 15 to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for the extension of the water system and for equipping the fire department.

East Lake, Ga.—(Atlanta post office)—Bonds have been voted by the citizens, the proceeds of which will be used for the construction of a water system. Noted Sept. 17, 1914 and Apr. 8, 1915.

✚**Plant City, Fla.**—(Official)—Contracts have been awarded to C. M. BOLAND, Bartow, for drilling a well, and to the AMERICAN CAST IRON PIPE CO., Birmingham, Ala., for c.-i. pipe. C. B. Root is a member of the Bd. of Pub. Wks. Noted Oct. 1 and May 13.

Northport, Ala.—Bonds for $16,000 have been voted by the citizens, according to press reports. The proceeds will be used for the construction of water and sewer systems. E. B. Kay, Tuscaloosa, is Engr. Noted Apr. 22.

Clarksdale, Miss.—An election will soon be held to vote on the question of issuing $150,000 in bonds, part of the proceeds of which will be used for the extension of the water system.

Pass Christian, Miss.—According to press reports bonds for $30,000 have been voted, the proceeds of which will be used for the extension of the water system. Noted May 20.

✚**Alliance, Ohio**—Contracts have been awarded to the DES MOINES STEEL CO., Des Moines, Iowa, for constructing a 40,000-gal. steel tank and to J. C. DEVINE & CO., Alliance, for piping. Chester & Fleming, Pittsburgh, Penn., is Engr. Noted Mar. 25 and May 6.

✚**Bridgeport, Ohio**—Contracts have been awarded, according to press reports, to ANDREW L. NICKOLICH, Fairmont, W. Va., at $23,000, for constructing water and sewer systems. Noted Jan. 28.

✚**Cincinnati, Ohio**—The contract has been awarded to the NATIONAL WATER MAIN CLEANING CO., at $19,712, by the Board of Public Service for furnishing c.-i. pipe and specials and for cleaning water mains. Noted Apr. 22.

East View, Ohio—(Warrensville post office)—Bids will be received until 11 a.m., June 14, by Charles E. Burger, Clk. for laying water mains in Lee Rd., Helen, Sand, and East 149th St. and for constructing sidewalks on Centre Road. The Pease Engineering Co., Marshall Bldg., Cleveland, is Engr.

✚**Rocky River, Ohio**—(Official)—The contract has been awarded to the ROSS COOK ENGINEERING CO., Akrón, at $13,393, for laying water mains. Other bidders were: Phillips & Bixel, Cleveland, $14,028; M. Nichols & Son, Cleveland, $15,808; George Gantose, Cleveland, $14,613. Frank Mitchell is Clk. Noted Apr. 29.

✚**Toledo, Ohio**—The contract has been awarded to the ARROW ENGINEERING CO., St. Louis, Mo., at $60,438, by the Director of Public Service for the installation of machinery for the high pressure pumping station. Noted Mar. 11.

Zanesville, Ohio—At an election held May 11 the citizens voted against the question of issuing bonds for $250,000. The proceeds was to have been used for the construction of a new water system. Noted Dec. 24, Jan. 14 and Apr. 8.

✚Orion, Mich.—The contract has been awarded to the TRAVERSE CITY IRON WORKS CO., Traverse City, by the city for constructing a water system. Noted Oct. 8 and Jan. 28.

✚Bellewood, Ill.—The contract has been awarded to MICHAEL McELLIGOTT, Evanston, at $1.16 per lin.ft. for laying 6-in. water mains in Morris and St. Paul Ave.

Chicago, Ill.—Bids will be received until May 28 by W. R. Moorhouse, Comr. of Pub. Wks., for furnishing 2265 tons of c.-i. water pipe, 16- to 24-in. and for 25 36-in. gate valves, f.o.b. cars 2352 Ashland Ave.

Columbia, Ill.—Plans have been prepared by Fuller-Coult Co., St. Louis, Mo., for the construction of water and sewer systems. The estimated cost is $12,671. E. H. Brucker is City Clk. Noted Apr. 1.

McLean, Ill.—The installation of a water system is under consideration by the City Council.

✚★Paris, Ill.—(Official)—The contract has been awarded to HICKEY BROS., St. Louis, Mo., at $49,412, for constructing four earth dams, a diversion channel, a wet well and an intake. A. A. Brubaker is City Clk. Noted Apr. 29.

Kenosha, Wis.—Bids will be received until June 14 by the Board of Water Commissioners for constructing a 42-in. c.-i. intake pipe about 10,000 ft. long, a submerged intake crib and a well. B. C. Brennan is City Engr. Noted July 2, 1914, and Apr. 29, 1915.

Wittenberg, Wis.—At a special election the citizens voted in favor of issuing $10,000 in bonds, the proceeds of which will be used for the installation of a water system. W. G. Kirchhoffer, Madison, is Engr. Noted Mar. 4 and Apr. 8.

✚Nevada, Iowa—(Official)—The contract has been awarded to the J. P. MILLER ARTESIAN WELL CO., Chicago, Ill., at $10,220, for driving an artesian well to a depth of 2000 ft. R. A. Davis is City Clk. Noted May 6.

Oelwein, Iowa—Bids will be received until June 7 by E. H. Burlingham, City Clk., for furnishing supplies for the water department for one year.

Rock Valley, Iowa—Bids will be received until 2 p.m., June 2, by J. A. Garland, Clk., for the construetion of a 100-ft. steel tower and a 50,000-gal. steel water tank.

Traer, Iowa—The citizens contemplate calling an election to vote on the question of issuing bonds, the proceeds of which will be used for the extension of the water system.

Lynch, Neb.—Bids will be received until 6 p.m., June 1, by H. E. McGinitie, Village Clk., for making extensions to the water system.

Ipswich, S. D.—Bids will be received until June 3 by L. C. Fix, City Audr, for constructing a concrete reservoir with connections. The Dakota Engineering Co., Mitchell, is Engr.

Mobridge, S. D.—An election will be held June 7 to vote on the question of making extensions to the water system. C. A. Smith is Mayor.

Anamoose, N. D.—The citizens contemplate constructing a water system.

Judith Gap, Mont.—Gerharz & Jacqueth, Great Falls, has been retained by the Council, according to press reports, to prepare plans for the construction of a water system. Estimated cost, $15,000. Noted Apr. 1.

Philipsburg, Mont.—According to press reports the Council is again considering the installation of a water system. C. H. Green, Spokane, Wash., is Engr. The estimated cost is $24,000. Noted Mar. 11.

Gallatin, Mo.—Bonds for $17,000 have been voted by the citizens, according to press reports. The proceeds will be used for extension and improvement of the water and electric-light systems.

Rockport, Mo.—Bids will be received about June 19 by the City Clerk for the construction of a water system, the estimated cost of which is $12,000. W. B. Rollins & Co., Midland Bldg., Kansas City, is Engr. Noted Aug. 13 and Sept. 17, 1914.

Arkansas City, Ark.—The Lambe & Demarke Light & Water Co. plans to spend $20,000 for the extension of its water system. A pump will be installed and 2000 ft. of 6-in. water mains will be laid.

✚Ashdown, Ark.—The contract for constructing a water system, materials furnished by the city, has been awarded to C. W. CARDWELL, Texarkana, at $13,233. Noted Aug. 13, 1914.

Benton, Ark.—Bids will probably be received about June 15 by the city for the construction of water, sewer and electric-light systems. The estimated cost is $100,000. R. C. Bailey is Mayor. Noted Jan. 14.

✚Paragould, Ark.—The contract has been awarded, according to press reports, to REODECKER & CONNOR, Kansas City, Mo., at $28,000, by the Commissioners of Water Improvement District No. 2, for the construction of a water system. Noted May 6.

Walnut Ridge, Ark.—The construction of a water system is under consideration.

✚Cotulla, Tex.—The contract has been awarded to F. M. BURKETT, San Antonio, Tex., for drilling an artesian well for the water system. Bonds for $14,000 were voted for this work. Noted Sept. 10.

El Paso, Tex.—William E. Race, Supt. of Water Wks., advises the construction of a reservoir on Mt. Franklin at an estimated cost of $250,000.

Temple, Tex.—Bids will be received until June 8 by the City Council for the construction of a concrete dam and spillway at the water-works pumping station. The estimated cost is $20,000. Noted Jan. 28.

Cushing, Okla.—The city will not make improvements to the water system until later in the year. W. S. Barnick, Cushing, is Engr. Noted May 6.

Taylorsville, Utah—The West Side Water Co., recently incorporated with $15,000 capital, will construct a water system to supply water for domestic use to Bennion, Taylorsville and West Jordan. Walter R. Weston is Secy.

Reno, Nev.—The City Council contemplates issuing $750,00 in bonds, the proceeds of which will be used for the construction of water and electric-light systems.

Miami, Ariz.—See item under "Sewers."

Seattle, Wash.—Heath & Gove, Tacoma, is preparing plans for the construction of a water system at the American Lake Military Reservation at an estimated cost of $12,000. The system will be constructed by the Washington National Guard. Captain Liggett is in charge.

Umatilla, Ore.—According to press reports the Oregon-Washington R.R. & Navigation Co. will furnish water to the city. The city will install its own distributing system. About 11,000 ft. of pipe will be required. E. E. Stracher is Mayor and H. B. Hull is City Clk.

✚Escondido, Calif.—The contract has been awarded to the WESTERN GAS ENGINE CO., Los Angeles, at $8958, by the City Council for constructing two pumping plants for the water system.

Pasadena, Calif.—Bids will soon be received by H. Dyer, City Clk., for furnishing c.-i. pipe and fittings for the water department.

Terra Bella, Calif.—A special election will be held in the Terra Bella Irrigation District in August to vote on the question of issuing $1,000,000 in bonds. The proceds will be used for the construction of a reservoir and 40 miles of irrigation system. Earl R. Clemens is Secy. and S. E. Keefer, San Francisco, is Engr.

Willows, Calif.—(Official)—We have been advised that an irrigation district will soon be organized to irrigate 32,000 acres in Glenn County. John P. Ryan is Ch. Engr. Noted May 6.

Bathurst, N. B.—Bids will be received until 8 p.m., June 10, by John G. Stout, Clk., for the purchase of $150,000 in bonds, the proceeds of which will be used for the construction of water and sewer systems.

SEWERS

✚Boston, Mass.—The contract has been awarded to the WEST ROXBURY TRAP ROCK CO., Roxbury, at $44,470, for the construction of the Dorchester Brook sewer and a sewer in Judson St., Dorchester District. Noted Jan. 4 and May 20.

Boston, Mass.—The Metropolitan Water and Sewer Board contemplates constructing 7½ miles of sewers to extend from Wellesley to West Roxbury, connecting with the Neponset trunk sewer line.

✚Lexington, Mass.—The contract has been awarded to W. B. BRYNE, West Medford, at $45,000, for the construction of 6½miles of pipe sewers with manholes.

Pittsfield, Mass.—The City Council has appropriated $40,000 for the construction of filter beds at the sewage-disposal plant.

✚Shelburne Falls, Mass.—(Official)—The contract for the construction of sewers has been awarded to WAY & CELLILI, Springfield. A. C. Bray is City Clk. Noted May 13.

New Britain, Conn.—The Board of Public Works contemplates extending the Lawlor St. sewer to Allen St. The estimated cost is $19,000.

Freeport, N. Y.—The citizens contemplate issuing $300,000 in bonds, the proceeds of which will be used for the construction of a sewer system and a sewage disposal plant.

★Huntington, N. Y.—(Official)—The lowest bid submitted for the construction of a sewer system and sewage-treatment works was that of Frank Nordone, Mt. Vernon, N. Y., at about $78,000. George W. Fuller, 170 Broadway, N. Y., is Engr. Noted Dec. 17, Jan. 14, Apr. 15 and 29.

✚New York, N. Y.—(Borough of Bronx)—(Official)—Contracts for sewer construction have been awarded to TONY LAPADULA, at $9798; for constructing sewers and appurtenances in Plimpton Ave. between Boscobel Ave. and Featherbed Lane, to MICHAEL MARRONE, at $10,875; for constructing sewers and appurtenance in West 234th St. and Corlear Ave.; to D. J. DONLIN, at $3008, for constructing sewers and appurtenances in West 238th St. and Review Pl. Noted Apr. 29 and May 13.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until June 1 by Douglas Mathewson, Borough Pres., for constructing sewers and appurtenances in Bryant, Newton Ave. and in Stearns St.

New York, N. Y.—(Borough of Queens)—(Official)—Bids were received May 24 by Maurice M. Connolly, Borough Pres., for constructing sewer and appurtenances in (a) Polk Ave., (b) in Van Alst Ave. as follows: Evergreen Construction Co., (a) $35,358, (b) $3500; Angelo Paino, (a) $31,959, Peace Bros., (a) $33,501, (b) $3854; Stanhope Construction Co., (a) $35,322; Clancy & Van Alst, (a) $33,663, (b) $3345; R. Carvel, (a) $37,908, (b) $3414; Briggs & McLoughlin, (a) $49,274, (b) $5197; Joseph Jennings, (a) $41,884; Rosenthal Engineering Co., (a) $35,197; Green Construction Co., (b) $3330. Noted May 20.

★Oswego, N. Y.—(Official)—Bids will be received until June 1 by the Department of Public Works for the construction of sewers. Charles W. Linsley is Comr. of Pub. Wks.

Rochester, N. Y.—The City Council contemplates the construction of the Graves St. tunnel sewer estimated to cost $12,000, the Rosalind St. sewer estimated to cost $4800, and sewers in Congress Ave. estimated to cost $8000.

Syracuse, N. Y.—The lowest bid submitted for the construction of a sewage-disposal plant was that of the P. J. Sullivan Co., at $7835. Other bids were: Samuel Bonn, $9677, and Edward Joy, $11,250.

Convent Station, N. J.—Bids will be received about June 1 by the city for the construction of a sewer system estimated to cost $20,000. Clyde Potts, 30 Church St., New York, N. Y., is Engr.

Hoboken, N. J.—The city will not construct the proposed Mill Creek sewer, estimated to cost $85,000. Bids were received Oct. 30, 1913, and the contract was awarded to R. Waddington & Sons. This is as far as the project progressed. The contract and all former resolutions have been rescinded.

+Newark, N. J.—The contract for the construction of the northerly portion of Section 19 of the Acquacknock, Garfield and Passaic branch of the Main Intercepting Sewer has been awarded to the HARRISON & CRAIG CO., Newark, at $61,740. Noted May 6 and 20.

Point Pleasant, N. J.—The city contemplates the construction of a sewer system estimated to cost $20,000. F. C. Havens is Borough Clk.

Trenton, N. J.—The Board of City Commissioners has authorized the construction of sewers in Westfield and Edgewood Ave. Frank Thompson is City Clk.

★Beaver Falls, Penn.—(Official)—Bids will be received until June 8 by the City Council for the construction of a sewage-disposal plant and appurtenances. L. Hudson, 1210 House Bldg., Pittsburgh, is Engr. Noted Mar. 25.

+Edwardsville, Penn.—The contract has been awarded to D. M. ROSSER, at $16,582, for the construction of sewers in the Fifth and Sixth Wards.

+Greenville, Penn.—The contract has been awarded to LESHER, ROESS & LESHER, Oil City, for the construction of sewage-disposal works, intercepting and lateral sewers. The estimated cost is $43,000. Chester & Fleming, Pittsburgh, is Engr. Noted May 6.

Paoli, Penn.—Plans have been prepared by Herbert W. Hatton, Equitable Bldg., Wilmington, Del., for the construction of a sewage-disposal plant for the Pennsylvania R.R.

Philadelphia, Penn.—According to press reports plans have been prepared for the construction, within the next five years, of a system of sewers and sewage-disposal plants to stop the pollution of the Delaware and Schuylkill Rivers. The estimated cost is $22,200,000.

+Pittsburgh, Penn.—The contract for the construction of a 54-in. and 60-in. brick relief sewer in private property and in 42nd and 43rd St. has been awarded to F. & F. DIULIUS, at $9966.

+Baltimore, Md.—The contract has been awarded to M. O'HERRON & SON, Baltimore, at $20,419, for the construction of the Stony Run trunk sewer. The contract for the construction of a road at the sewage-disposal works has been awarded to THOMAS F. MULLAN, at $5865.

Betterton, Md.—Plans are being prepared by Kastenhuber & Anderson, Easton, for the construction of a sanitary and storm sewer system with disposal plant.

Swansboro, Va.—(Manchester post office)—Charles E. Bolling, City Engr., has submitted a report to the Administrative Board estimating the cost of constructing a sewer system at $409,327.

+Bridgeport, W. Va.—The contract has been awarded to ANDREW L. NICKOLICH, at $23,000, for the construction of a sewer system and water works. Noted Feb. 4.

Hertford, N. C.—The city will issue $13,000 in bonds, the proceeds of which will be used for the construction of a sewer system. W. E. White is Mayor.

Ft. Meade, Fla.—The city will issue $58,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

+West Palm Beach, Fla.—The contract has been awarded to JONAS & GARRETSON, at $69,691, for the construction of sewers and seawall, and improving various streets. Noted Apr. 29.

Northport, Ala.—See item under "Water Supply-Irrigation."

Chattanooga, Tenn.—Bids will be received by William Cummings, County Judge, until 11 a.m., May 31, for the construction of sewers with all connections and appurtenances.

Barbourville, Ky.—Plans are being prepared for the construction of a sewer system estimated to cost $15,000. C. P. Kennedy is interested.

+Bridgeport, Ohio—See item under "Water Supply-Irrigation."

Cincinnati, Ohio—Bids were received May 14 by the Director of Public Service for the construction of the Winton Pl. relief sewers, Contract No. 1, as follows: (a) brick, (b) concrete, (c) reinforced-concrete, (d) segmental block, Welling & Franz, Cincinnati, (a) $38,652, (d) $37,177; Thomas Maloney, Cincinnati, (a) $37,714, (d) $37,640; Thomas P. Strack, Cincinnati, (c) $39,478, (d) $37,824; M. J. McCarthy, Cincinnati, (a) $39,444; D. P. Foley, Cincinnati, (a) $43,340, (b) $39,727, (d) $39,888; Cannell-Ames Construction Co., Cincinnati, (d) $42,700; John Dempsey, Cincinnati, (a) $46,580, (d) $44,816; Connelly Construction Co., Cincinnati, (a) $45,937; Evan Evans, Cincinnati, $49,441.

Cincinnati, Ohio—Bids were received May 11 by the Board of Public Service for the construction of sewers in Manss, Latham and Beech Ave. as follows: Connelly Construction Co., Cincinnati, $17,108; D. P. Foley, Cincinnati, $17,221; Cannell-Ames Construction Co., Cincinnati, $17,608; Thomas P. Strack, Cincinnati, $18,179; Welling & Franz, Cincinnati, $18,260; John Ruebel Construction Co., Cincinnati, $18,873; Wagner & Boehning, Cincinnati, $19,143; M. J. McCarthy, Cincinnati, $19,960; Thomas Maloney, Cincinnati, $22,210; Evan Evans, Cincinnati, $23,862. Noted May 6.

Cleveland, Ohio—(Official)—All bids received for the construction of the East 65th St. sewer have been rejected. Robert Hoffman is City Engr. Noted May 20.

Cleveland Heights, Ohio—(Warrensville post office)—Bids will be received until noon, June 12, by H. H. Canfield, Clk., for the purchase of $7000 in bonds, the proceeds of which will be used for the construction of sewers.

Defiance, Ohio—Bids will be received until noon, June 1, by Clayton M. Rath, Dir. of Pub. Wks., for sewer construction.

Findlay, Ohio—Bonds for $25,000 have been sold, the proceeds of which will be used for the construction of sewers. H. A. Glathart is City Engr.

+Fremont, Ohio—The contract for the construction for sewers has been awarded to the MODERN CONSTRUCTION CO., at $7000.

Springfield, Ohio—Bids will be received until 4 p.m., June 11, by the Building Commission for the construction of a sewage-disposal plant at the new infirmary. George E. McCord is Pres.

+Toledo, Ohio—(Official)—The contract for the construction of the main sanitary sewer No. 11 in Sub-district No. 2 has been awarded to ALBERT GRZYBOWSKI, Toledo. Noted Apr. 29.

+South Bend, Ind.—(Official)—The contract for the construction of the trunk sewer in Michigan St. has been awarded to J. H. CAHILL, Louisville, Ky., at $42,890. F. J. Anderson is City Engr. Noted Apr. 8 and May 6.

+Glencoe, Ill.—(Official)—The contract for the construction of 10,588 ft. of 8-in. vitrified pipe sewers has been awarded to WILLIAM DAVIDSON, at $29,959. Other bids were: Johnson & Thomson, $30,041; F. E. Keminski, $30,768; Monohon Bros., $31,530; Henry Rees, $31,619; Public Service Construction Co., $32,841; Dalton Bros., $41,247. Noted May 13.

+Green Bay, Wis.—(Official)—The contract has been awarded to SCHAEFER & WAERZEGGERS, Green Bay, for the construction of sewers in various streets. Noted May 13.

+Menomonie, Wis.—The contract for the construction of sewers has been awarded to A. F. SCHOENOFF, at $8755.

+Milwaukee, Wis.—The contract for the construction of sewers on the east and west sides of the Wilwaukee River has been awarded to the JOHN F. CASEY CO., Pittsburgh, Penn., at $305,304. T. Chalkly Hatton is Ch. Engr. Noted Mar. 11, Apr. 15 and 29.

Milwaukee, Wis.—The City Council contemplates issuing $200,000 in bonds, the proceeds of which will be used for the construction of sewers.

Ripon, Wis.—Bids will be received until 4 p.m., June 14, by J. W. Pierce, City Clk., for sewerage work in Metomen, Scott and Shepard St.

Mt. Ayr, Iowa—(Official)—The contract for the construction of a sewer system will be awarded about June 3. The estimated cost is $40,000. E. T. Archer & Co., 406 New England Bldg., Kansas City, Mo., is Engr. Noted Mar. 25, Apr. 22 and May 6.

Bird Island, Minn.—Surveys are being made by W. G. Stoulil for the construction of a sewer system. The estimated cost is $10,000.

Brainerd, Minn.—Bids will be received until 8 p.m., June 7, by A. Mahlum, City Clk., for the construction of 2110 ft. of 12- and 18-in., 1550 ft. of 8- and 10-in., 3040 ft. of 8- 10- and 12-in. pipe sewers with manholes and lampholes.

Duluth, Minn.—The city contemplates the construction of storm sewers estimated to cost $7000.

Eveleth, Minn.—(Official)—Bids will soon be received by A. P. Romer, City Clk., for the construction of a sewage-disposal plant. The estimated cost is $40,000. C. M. Dorway is City Engr. and F. Bass is Consult. Engr. Noted Apr. 22 and May 13.

Clay Center, Kan.—The contract will be awarded about June 1 for the construction of storm sewers. The estimated cost is $10,000. O. E. Noble, Manhattan, is Engr.

+Junction City, Kan.—(Official)—The contract for the construction of 3½ miles of sanitary sewers has been awarded to W. W. COOK, Junction City, at $8905. W. V. Buck is City Engr. T. W. Dorn is City Clk. Noted May 13.

Sisseton, S. D.—Bids will be received until 2:30 p.m., June 15, by Casper Kennedy, Mayor, for the construction of a sewer system. The estimated cost is $40,000. Noted Mar. 4.

Watertown, S. D.—(Official)—Bonds for $88,000 have been sold, the proceeds of which will be used for the construction of a sewer system. T. W. Shreiber is City Engr. Noted May 6 and 13.

Maplewood, Mo.—Bids will be received until June 9 by M. F. O'Brien, City Clk., for the construction of 5000 lin.ft. of 7-ft. tunnel sewer. The estimated cost is $50,000. Noted Mar. 18.

+Ashdown, Ark.—The contract for the construction of a sewer system has been awarded to C. W. CARDWELL, Texarkana, at $29,209.

Benton, Ark.—Bids will be received about June 15 by the city for the construction of sewers. The estimated cost is $100,000. J. B. McCrary, Atlanta, Ga., is Engr. Noted Jan. 15 and Mar. 11.

+Siloam Springs, Ark.—(Official)—The contract for the construction of a sanitary sewer system has been awarded to EVERETTE & BURT, Hutchinson, Kan., at $43,711. Winter & Dove, Fort Smith, Ark., is Engr. Noted Mar. 25 and Apr. 29.

Walnut Ridge, Ark.—The city contemplates the construction of a sewer system.

Marlin, Tex.—An election will be held June 15 to vote on the question of issuing $45,000 in bonds, the proceeds of which will be used for sewer construction. L. Goodrich is City Engr.

+Houston Heights, Tex.—(Official)—The contract for the construction of 1400 ft. of 84-in. and 600 ft. of 36-in. storm sewers with inlets and catch-basins has been awarded to HORTON & HORTON, Houston, at $26,222. Other bids were: James Stewart & Co., $44,140; William Brunet, $44,080; Bailey-Reeder & Co., $33,898; Freund & Quay, $35,000; Hunter & Hunter, $31,015. Noted Apr. 22.

Pittsburg, Tex.—The City Council has granted a franchise to G. Duff, Greenville, Tex., for the construction of a sewer system in Pittsburg.

Temple, Tex.—The city will extend its sanitary sewer system. The work will be done by day labor. The estimated cost is $15,178. J. T. Martin is City Secy. and R. D. Morgan is City Engr. Noted Apr. 20.

+Limon, Colo.—(Official)—The contract for the construction of sewers has been awarded to the GORDON TAYLOR CONSTRUCTION CO., Denver, at $20,664. V. T. Raywalt is City Engr. and C. M. Cook is City Clk.

Miami, Ariz.—An election will be held June 11 to vote on the question of issuing $30,000 in bonds, the proceeds of which will be used for the construction of a sewer system, water system, electric-light plant and street improvements.

Chehalis, Wash.—H. Whaley, City Engr., has submitted a report to the City Council estimating the cost of constructing the Prindle St. trunk sewer at $25,337.

Vancouver, Wash.—The city contemplates the construction of an 8-in. sewer in Columbia St. estimated to cost $10,000.

Walla Walla, Wash.—Plans have been prepared by Walter Rehorn, City Engr., for the construction of 21,000 ft. of 15-in., 300 ft. of 12-in., 3000 ft. of 10-in., 1000 ft. of 8-in. and 1000 ft. of 6-in. sewers. Bids will soon be received.

✚Palo Alto, Calif.—The contract for the construction of 12,450 ft. of 4-, 6-, 8- and 10-in. pipe sewers has been awarded to the CALIFORNIA POTTERY CO., San Francisco. Frank Kasson is City Clk.

Sacramento, Calif.—The City Commission has approved plans for the construction of Unit No. 1 of the sewer system which will drain the Maple Park District. The estimated cost is $50,000. A. Given is Ch. Engr.

Stockton, Calif.—An election will be held June 15 to vote on the question of issuing $550,000 in bonds, the proceeds of which will be used for the improvement of the sanitary and rainwater sewer system and the construction of storm sewers. Noted May 6.

Bathurst, N. B.—See item under "Water Supply—Irrigation."

Edmonton, Alta.—The city contemplates the construction of a sewage-disposal plant. The estimated cost is $30,000.

GARBAGE

New York, N. Y.—(Official)—Bids were received May 21 by the Department of Health for proposition "A," the removal of night soil and dead animals from the several boroughs for a period of five years beginning July 1, 1915, from Charles R. Van Etton, $48,910, and Product Mfg. Co., $44,730. Noted May 13.

Irvington, N. J.—Bids were received May 19 by the Town Commission for collecting garbage for a period of five years from J. F. Donovan, $37,500 and Charles Wahlers, $42,500.

West Hoboken, N. J.—(Official)—Bids will be received until June 9 by the town for the collection of ashes and garbage. A. L. Wachlin is Town Clk.

Houston, Tex.—The city plans to build four garbage crematories. Benjamin Campbell is Mayor.

Portland, Ore.—The citizens will vote on the question of a municipal garbage collection system at an election which will be held June 7. Noted Feb. 4.

Portland, Ore.—Bids will be received until 5 p.m., June 2, by R. H. Thomas, School Clk., Courthouse, Portland, for hauling garbage for the school year 1915-1916.

STREETS AND ROADS

✚Augusta, Maine—(Official)—Bids were received May 19 by the State Highway Commission and contracts awarded for constructing roads in various towns as follows: Manchester, Kennebec County, 2.68 miles of water bound macadam road, AHERN CONSTRUCTION CO., Willimantic, Conn., at $18,308; Edmunds, Washington County, 1.95 miles of gravel road, A. WILLIAMS & CO., Boston, Mass., at $9966; Fairfield, Somerset County, 2.29 miles of gravel road, NOYES & CAMPBELL, Augusta, at $9789; Bath, Sagadahoc County, .83 of a mile of gravel road, to be built by the State Highway Department; Thomaston, Lincoln County, 1.28 miles of gravel road to be built by the State Highway Department; Poland, Androscoggin County, 3.65 miles of gravel road, J. H. McGREGOR, Rumford, at $14,089; Oxford, Oxford County, 3.77 miles of sand-clay road, J. H. McGREGOR, Rumford, at $15,988. Noted May 13.

Burlington, Vt.—(Official)—Bids will be received until 2 p.m., June 15, by the Board of Street Commissioners for constructing walks, curbs and gutters.

Boston, Mass.—Bids will be received until June 1 by the Department of Public Works for paving Tremont St. from Scollay Sq. to Boylston St., Boston, with wood block and L St. from East First St. to Broadway, South Boston, with granite block.

Boston, Mass.—Bids were received May 18 by the State Highway Commission for constructing (a) 6400 lin.ft. of state road in Wrentham and (b) 6500 lin.ft. of road, including two concrete bridges in Williamstown, as follows: W. D. Smith, Wrentham, (a) $15,211; Joseph McCormick, East Providence, (a) $15,143; Snow & Farrington, Wrentham, (a) $15,160; Way & Cellili, Springfield, (b) $13,708; C. E. Horne, Millbury, (b) $13,331; Cavanaugh & Co., Boston, (b) $13,994; F. E. Ellis, Melrose, (b) $17,244. Noted May 13.

Boston, Mass.—Bids will be received until noon, June 1, by the State Highway Commission for the construction of a section of State Highway in Sutton and Uxbridge Townships.

Boston, Mass.—No bids were received May 12 by the State Highway Commission for constructing a road at Falmouth. Noted May 6.

Boston, Mass.—Bids will be received until May 28 for the construction of bituminous macadam roadways in Burton St., Brighton, and in Walley St., East Boston District. Patrick O'Hearn is Acting Comr. of Pub. Wks.

✚★Albany, N. Y.—(Official)—Bids were received May 18 by Edwin Duffey, State Highway Comr., and contracts awarded for repairing highways as follows:

Repair Contract No. 690, Allegany County, 11.30 miles: KENNEDY CONSTRUCTION CO., Albany, $8950 (awarded contract); McGreevey, McGuigan & Baum Construction Co., Elmira, $9432; F. Harrison Higgins, Olean, $9813; I. B. Contracting Corporation, New York, $10,043.

Repair Contract No. 767, Allegany County, 4 miles: KENNEDY CONSTRUCTION CO., Albany, $11,269 (awarded contract); McGreevey, McGuigan & Baum Construction Co., Elmira, $12,272; John Johnson Construction Co., Buffalo, $12,698.

Repair Contract No. 746, Cayuga County, 7.96 miles: FLOO & VAN WIRT CO., Hudson Falls, $38,322 (awarded contract); Paddleford & King, Sherburne, $38,972; Brayer Bros., Auburn, $40,532; Michael Murphy, Rochester, $41,267; Monroe Roads Co., Pittsford $41,628; Thomas Grady, Rochester, $42,402; Sullivan Construction Co., Syracuse, $42,558; Dana W. Robbins, Inc., New York, $42,884; P. H. Murray, Rochester, $44,866; T. M. Hunter, Sterling, $45,043; Semper Bros., Watertown, $45,937; J. H. Weidman, Syracuse, $49,194.

Repair Contract No. 749, Franklin County, 8.58 miles: W. T. THAYER & CO., Chateaugay, $3465 (awarded contract); Richard Hopkins, Troy, $3702; John F. Lewis, Albany, $4795; I. B. Contracting Corporation, New York, $3968; Rock & Griffin, Massena, $4070.

Repair Contract No. 754, Franklin County, 2.07 miles: W. T. THAYER & CO., Chateaugay, $9938 (awarded contract).

Repair Contract No. 762, Fulton County, 19.86 miles: DALE ENGINEERING CO., Utica, $7482 (awarded contract); John P. Dugan & Co., Amsterdam, $8085; W. L. Lawton, Glens Falls, $8213; W. J. Morrissey, Saratoga Springs, $8370; Brown & Lowe Co., Schenectady, $8642; George Holler, Albany, $8909; I. B. Contracting Corporation, New York, $9307; Clarence Welsh & Co., Gloversville, $7984.

Repair Contract No. 757, Genesee-Livingston and Monroe Counties, 41.10 miles: SWEENEY & BOLAND, Rochester, $6670 (awarded contract); Headley Good Roads Co., Philadelphia, Penn., $6700; Dale Engineering Co., Utica, $7023; E. P. Strowger, Pittsford, $7100; Defiance Corporation, Ticonderoga, $7254; Ribstine-Holter Co., Inc., Rochester, $7515; F. W. Knickenberg, Buffalo, $7535; Paul Gsanger, Monsey, $7567; I. B. Contracting Corporation, New York, $7608.

Repair Contract No. 732, Hamilton County, 14.49 miles: DALE ENGINEERING CO., Utica, $5152 (awarded contract); John P. Dugan & Co., Amsterdam, $5575; Clarence Welsh & Co., Gloversville, $5575; Richard Hopkins, Troy, $5595; W. L. Lawton, Glens Falls, $577[illegible]; Brown & Lowe Co., Schenectady, $5830; William J. Morrissey, Saratoga, $6037; I. B. Contracting Corporation, New York, $6350; Parker-Hassam Paving Co., Worcester, Mass., $6935.

Repair Contract No. 745, Livingston County, 15.69 miles: McCARTHY & WALL, Mt. Morris, $4055 (awarded contract); Ribstine-Holter Co., Inc., Rochester, $4146; I. B. Contracting Corporation, New York, $4357.

Repair Contract No. 752, Livingston and Ontario Counties, 17.75 miles: HEADLEY GOOD ROADS CO., Philadelphia, Penn., $3551 (awarded contract); Ribstine-Holter Co., Inc., Rochester, $3808; I. B. Contracting Corporation, New York, $3833; Clarence E. Walker, Troy, $3864; Paul Gsanger, Monsey, $3870.

Repair Contract No. 734, Madison County, 29.71 miles: HARRY W. ROBERTS CO., Utica, $10,870 (awarded contract); Defiance Corporation, Ticonderoga, $11,570; Nash & Griffin, Norwich, $12,538; Dana W. Robbins, Inc., New York, $12,559; De Barber & Hill, Fulton, $12,837; Richard Hopkins, Troy, $13,208; I. B. Contracting Corporation, New York, $13,489; George Holler, Albany, $13,615.

Repair Contract No. 729, Montgomery County, 25.27 miles: HARRY W. ROBERTS & CO., Utica, $8770 (awarded contract); John P. Dugan & Co., Amsterdam, $9697; W. L. Lawton, Glens Falls, $10,560; Dana W. Robbins, Inc., New York, $10,627; I. B. Contracting Corporation, New York, $10,752; George Holler, Albany, $10,859; William J. Morrissey, Saratoga Springs, $11,073; Charles Scott, Ft. Plain, $11,246.

Repair Contract No. 763, Oneida, Madison, Otsego and Herkimer Counties, 32.4 miles: HARRY W. ROBERTS & CO., Utica, $12,280 (awarded contract); Richard Hopkins, Troy, $14,929; George Holler, Albany, $14,941; I. B. Contracting Corporation, New York, $15,406.

Repair Contract No. 731, Oneida and Herkimer Counties, 31.91 miles: DALE ENGINEERING CO., Utica, $10,947 (awarded contract; Dana W. Robbins, Inc., New York, $11,827; Richard Hopkins, Troy, $12,801; De Barber & Hill, Fulton, $13,142; Brown & Lowe Co., Schenectady, $13,429; I. B. Contracting Corporation, New York, $13,645; R. D. Cooper, Little Falls, $13,878.

Repair Contract No. 730, Oneida County, 30.30 miles: DALE ENGINEERING CO., Utica, $12,007 (awarded contract); Dana W. Robbins, Inc., New York, $12,385; John A. Jova, Inc., Newburgh, $13,033; De Barber & Hill, Fulton, $13,216; I. B. Contracting Corporation, New York, $13,850; R. D. Cooper, Little Falls, $13,958; George Holler, Albany, $13,994; Brown & Lowe Co., Schenectady, $14,505.

Repair Contract No. 756, Ontario County, 3.74 miles: BERT WARREN and J. J. GLEASON, Honeoye Falls, $13,395 (awarded contract); Connors & Gallivan, Elmira, $13,994; Ribstine-Holter Co., Inc., Rochester, $14,126; John Johnson Construction Co., Buffalo, $15,1-02.

Repair Contract No. 755, Orange County, 2.20 miles: SCHUNNEMUNK CONSTRUCTION CO., Highland Mills, $11,483 (awarded contract); Paul Gsanger, Monsey, $11,978.

Repair Contract No. 759, Orange County, 6.83 miles: JOHN A. JOVA, INC., Newburgh, $5343; Paul Gsanger, Monsey, $5444; I. B. Contracting Corporation, New York, $6045; Schunnemunk Construction Co., Highland Mills, $6845.

Repair Contract No. 641, Monroe and Orleans Counties, 23.63 miles: THOMAS HUCKNALL & CO., Albion, $4694 (awarded contract); Sweeney & Boland, Rochester, $5341; Rhodey & Clawson, Albion, $5572; Headley Good Roads Co., Philadelphia, Penn., $5643; County Construction Co., Troy, $5735; Clarence E. Walker, Troy, $5768; I. B. Contracting Corporation, New York, $5869; Paul Gsanger, Monsey, $5916; I. M. Ludington Co., Inc., Rochester, $6021.

Repair Contract No. 751, Oswego County, 7 miles: THOMAS HUCKNALL & CO., Albion, $2251 (awarded contract); Pathfinder Construction Co., Inc., Fulton, $2447; Fred D. Dutcher, Fulton, $2505; De Barber & Hill, Fulton, $2605; I. B. Contracting Corporation, New York, $2722; Semper Bros., Watertown, $2813.

Repair Contract No. 747, Oswego County, 10.75 miles: THOMAS HUCKNALL & CO., Albion, $3766 (awarded contract); Fred D. Dutcher, Fulton, N. Y., $6233; Pathfinder Construction Co., Inc., Fulton, $4290; Semper Bros., Watertown, $4649; I. B. Contracting Corporation, New York, $4654; De Barber & Hill, Fulton, $4725.

Repair Contract No. 721, Rensselaer County, 0.41 mile: GLEASON & DAVITT, Albany, $2821 (awarded contract); County Construction Co., Troy, $2922; I. B. Contracting Corporation, New York, $3072; Belmar Contracting Co., Inc., Troy, $3207; James J. Rigney, Rensselaer, $3230.

Repair Contract No. 713, Seneca County, 7.05 miles: PATHFINDER CONSTRUCTION CO., INC., Fulton, $2889 (awarded contract).

Repair Contract No. 758, Steuben County, 3.94 miles: KENNEDY CONSTRUCTION CO., Albany, $22,000 (awarded contract); Bradley & Nolan, Corning, $22,425; Atlanta Construction Co., Atlanta, $22,859; John Johnson Construction Co., Buffalo, $25,975.

Repair Contract No. 541, Tompkins County, 3.04 miles: PATRICK D. CONLEY, Ithaca, $15,080 (awarded contract); J. H. Weidman, Syracuse, $18,408; McGreevey, McGuigan & Baum Construction Co., Elmira, $18,408; Hasard & Dater, Groton, $18,899; Paddleford & King, Sherburne, $19,110; John H. Gordon, Albany, $19,292; Hendrickson-McCabe Construction Co., Spencerport, $19,448; Kennedy Construction Co., Albany, $20,417.

Repair Contract No. 553, Washington County, 1.85 miles: WILLIAM MORRISSEY, Saratoga Springs, $11,332 (awarded contract; William Sherrill, Hudson Falls, $11,972; Gleason & Davitt, Albany, $12,614; W. L. Lawton, Glens Falls, $12,997; The Lane Construction Corporation, Meriden, Conn., $12,999; Flood & Van Wirt Co., Hudson Falls, $13,326.

Repair Contract No. 723, Wyoming County, 13.42 miles: I. B. CONTRACTING CORPORATION, New York, $4354 (awarded contract).

Repair Contract No. 748, Yates County, 2 miles: McGreevey, McGuigan & Baum Construction Co., Elmira, $1400; JOHN W. GURNETT, Watkins, $1468 (awarded contract); Atlanta Construction Co., Atlanta, $1537; Kennedy Construction Co., Albany, $1537; I. B. Contracting Corporation, New York, $1600; Richard Hopkins, Troy, $1617. Noted Apr. 29.

★**Albany, N. Y.**—(Official)—Bids were received May 21 by Edwin Duffey, State Highway Comr., for constructing highways as follows:

Road No. 1238, Broome County, 1.03 miles: Tyne & Willey, Binghamton, $49,274; Paddleford & King, Sherburne, $49,422; Holleran Bros., Elmira, $50,963; Lee Du Bois, Lestershire, $51,150; William H. Ring Contracting Co., Ogdensburg, $51,596; James E. Martin, Utica, $52,020.

Road No. 5412, Broome County, 0.28 mile: Paddleford & King, Sherburne, $11,135; Tyne & Willey, Binghamton, $11,319; Lee Du Bois, Lestershire, $11,472; C. D. Dean, Binghamton, $11,526; Holleran Bros., Elmira, $11,568; William H. Ring Contracting Co., Ogdensburg, $11,613; James E. Martin, Utica, $11,932.

Road No. 5440, Broome County, 0.41 miles: Arthur D. Osborne, Binghamton, $20,488; Paddleford & King, Sherburne, $22,620; C. D. Dean, Binghamton, $23,041; Tyne & Willey, Binghamton, $23,541; Lee Du Bois, Lestershire, $24,654; James E. Martin, Utica, $24,654.

Road No. 1269, Cattaraugus County, 5.62 miles: Woolsey Construction Co., Davenport, $74,127; McNerney Construction Co., Canton, Penn., $75,659; Gleason & Davitt, Albany, N. Y., $76,699; O. M. Severson, Erie, Penn., $78,080.

Road No. 1275, Cattaraugus County, 3.95 miles: O. M. Severson & Co., Erie, Penn., $67,727; McNerney Construction Co., Canton, Penn., $67,817; Woolsey Construction Co., Davenport, $68,169; F. Harrison Higgins Co., Olean, $70,621.

Road No. 5544, Cattaraugus County, 6.88 miles: D. D. Dugan & Sons, Olean, $132,687; James Rossney, Buffalo, $134,877; Parker-Hassam Paving Co., Worcester, Mass., $138,308; Woolsey Construction Co., Davenport, $139,203; Gleason & Davitt, Albany, $139,936; Servis & Mackey, Youngstown, $141,907; S. T. Benson & Co., Jamestown, $143,097; I. M. Benson & Co., Jamestown, $143,097; I. M. Ludington & Sons, Inc., Rochester, $143,521; John W. Landel, Tonawanda, $145,037; John W. Landel, Tonawanda, $145,037; McNerney Construction Co., Canton, Penn., $146,250.

Road No. 1270, Delaware County, 7.69 miles: Samuel Beskin, Beacon, $72,768; H. B. Sproul Co., Inc., Peekskill, $72,878; E. J. Anderson, Menands, $74,452; Rob Roy Construction Co., Albany, $75,509; DeGraff & Hogeboom, Kingston, $76,787; Langan Construction Corporation, Albany, $77,428; McNerney Construction Co., Canton, Penn., $77,983; C. W. Tyron, Boyntonville, $79,827; Brown & Lowe Co., Schenectady, $81,939; William C. Evans, Ambler, Penn., $82,160; James E. Martin, Utica, $85,871.

Road No. 1271, Delaware County, 11.40 miles: Fulton Engineering Co., Inc., Albany, $128,446; Schunnemunk Construction Co., Highland Mills, $130,542; Samuel Beskin, Beacon, $131,685; H. B. Sproul Co., Inc., Peekskill, $133,260; Ruddy-Saunders Construction Co., Troy, $133,804; E. J. Anderson, Menands, $134,439; Dale Engineering Co., Utica, $134,707; Juniata Co., Philadelphia, Penn., $136,254; Rob Roy Construction Co., Albany, $137,936; Freeman & Cunningham, Watervliet, $138,010; Langan Construction Corporation, Albany, $138,261; James E. Martin, Utica, $139,109; Westchester Dutchess Corporation, Mt. Vernon, $140,380.

Road No. 1272, Delaware County, 5.84 miles: E. J. Anderson, Menands, $63,898; Fulton Engineering Co., Albany, $64,991; H. B. Sproul Construction Co., Inc., Peekskill, $65,484; Ruddy-Saunders Construction Co., Troy, $66,819; Dale Engineering Co., Utica, $67,381; Samuel Beskin, Beacon, $67,588; Schunnemunk Construction Co., Highland Mills, $67,593; Westchester-Dutchess Corporation, Mt. Vernon, $68,297; Richard Hopkins, Troy, $68,829; Juniata Co., Philadelphia, Penn., $69,057; Brown & Lowe Co., Schenectady, $69,454; Blankfield & Donovan, Kingston, $69,672.

Road No. 1268, Genesee County, 4.49 miles: John Johnson Construction Co., Buffalo, $39,732; F. W. Knickenberg, Buffalo, $39,759; Chilson & Gibson, Le Roy, $41,880; Michael Murphy, Rochester, $42,528; Ribstine-Holter Co. Inc., Rochester, $42,781.

Road No. 1242, Greene County, 4.43 miles: John L. Hayes Construction Co., Yonkers, $50,420; M. E. Francis, Tannersville, $51,647; Catskill Construction Co., Catskill, $51,804; Westchester-Dutchess Corporation, Mt. Vernon, $52,446; F. A. Biggi, Brooklyn, $52,981; Marks Kearney, Hudson, $52,996; Samuel Beskin, Beacon, $53,481; John C. Souder Construction Co., Inc., Lancaster, Penn., $54,297; Brady-Oltarsh Construction Co., New York, $54,737; Blankfield & Donovan, Kingston, $54,798; Langan Construction Corporation, Albany, $54,962.

Road No. 5553, Oneida County, 5.72 miles: B. F. S. Co., Herkimer, $49,893; F. Harrison Higgins Co., Olean, $51,991; Brady-Oltarsh Construction Co., New York, $53,592; Ft. Schuyler Construction Co., Oneida, $54,534; John A. Jova, Inc., Newburgh, $54,645; Gallway Co., New York, $54,888; Conroy & Nixdorf, Oneida, $55,559; J. H. Weidman, Syracuse, $56,445; Jos. McCormick, East Providence, R. I., $58,202.

Road No. 1139, Ontario County, 1.38 miles: Thomas F. Murray, Le Roy, $17,306; J. W. Brennan Construction Co., Inc., Geneva, $17,933; Whitmore-Rauber & Vicinius, Rochester, $18,499; McNerney Construction Co., Canton, Penn., $18,523; Wm. H. Madden, Rochester, $18,816.

Road No. 1276, Ontario County, 1.23 miles: Schroeder-Hicks Contracting Co., Rochester, $23,272; Connors & Gallivan, Elmira, $23,741; McNerney Construction Co., Canton, Penn., $23,948; John Johnson Construction Co., Buffalo, $24,145; J. W. Brennan Construction Co., Geneva, $24,375; Whitmore-Rauber & Vincinius, Rochester, $25,558; F. Harrison Higgins Co., Olean, $25,866.

Road No. 1277, Ontario County, 1.53 miles: Lake Shore Construction Co., Buffalo, $69,956; J. W. Brennan Construction Co., Inc., Geneva, $70,959; William H. Ring Contracting Co., Ogdensburg, $71,481; Parker-Hassam Paving Co., Worcester, Mass., $72,225; Chambers & Barnes, Rochester, $72,547; Hovey-Benedict, Williamsport, Penn., $72,590; Robert W. Henson, Geneva, $72,745; McNerney Construction Co., Canton, Penn., $73,037; Conners & Gallivan, Elmira, $73,090; Ribstine-Holter Co. Inc., Rochester, $74,180; Schroeder-Hicks Contracting Co., Rochester, $74,519; Gleason & Davitt, Albany, $75,097; Whitmore-Rauber & Vicinius, Rochester, $77,249.

Road No. 1278, Ontario County, 8.63 miles: Hovey-Benedict, Williamsport, Penn., $55,206; Ribstine-Holter Co., Inc., Rochester, $59,299; Michael O'Brien, Cortland, $61,174; I. M. Ludington Sons, Inc., Rochester, $61,710; Young & Hyde Inc., New York, $62,750; Albert Gaffey, Syracuse, $63,707; Michael Murphy, Rochester, $65,054; McNerney Construction Co., Canton, Penn., $65,636; Chambers & Barnes, Rochester, $70,966.

Road No. 1262, St. Lawrence County, 5.07 miles: W. T. Thayer & Co., Chateaugay, $44,882; J. H. Weidman, Syracuse, $46,344; Thomas Grady, Rochester, $47,116; Ross-Hallenbeck Co., Copenhagen, $47,257; T. H. Gill Co., Binghamton, $47,403; Henry P. Burgard, Buffalo, $47,922; Weed & Walsh, Mechanicsville, $48,002; F. A. Biggi, Brooklyn, $49,500; Burns Bros. & Haley, Watertown, $49,919; James E. Martin, Utica, $54,556.

Road No. 1266, St. Lawrence County, 3.09 miles: Thomas O'Brien, Watertown, $31,802; F. Harrison Higgins Co., Olean, $34,919; W. T. Thayer & Co., Chateaugay, $36,172; Richard Hopkins, Troy, $36,450; John A. Jova, Inc., Newburgh, $37,468; Ross-Hallenbeck Construction Co., Copenhagen, $38,630.

Road No. 5551, Schenectady County, 3.34 miles: William Green, Schenectady, $32,461; Alonzo Schaupp, Guilderland, $32,580; Curran Corporation, Middletown, Conn., $32,972; F. A. Biggi, Brooklyn, $33,900; John Crisorio, Albany, $33,971; E. J. Anderson, Menands, $35,411; A. Hearn Construction Corporation, Willimantic, Conn., $37,352; Thomas H. Kerr, Troy, $38,656.

Road No. 1274, Suffolk County, 10.50 miles: Town of Southampton, Southampton, $113,068; Eggleston & Garthwaite, Yonkers, $114,209; Galway & Co., New York, $119,635; John L. Hayes Construction Co. Inc., Yonkers, $121,776; Topeka Paving Co. Inc., Brooklyn, $122,000; Leo E. Kelly, Inc., Brooklyn, $122,730; Murray & Gardner, Center Moriches, $123,528; Parker-Hassam Paving Co., Worcester, Mass., $123,986; Borough Asphalt Co., Brooklyn, $124,086; McFarlane Construction Co., Brooklyn, $124,359; C. W. Blakeslee & Sons, New Haven, Conn., $125,143; Nordone & Petrillo, Mt. Vernon, $125,788; Juniata Co., Philadelphia, Penn., $126,316.

Road No. 1081, Washington County, 3.34 miles: John Crisorio, Albany, $27,354; F. A. Biggi, Brooklyn, $28,390; Brady-Oltarsh Construction Co., New York, $29,165; Ahearn Construction Co., Willimantic, Conn., $29,424; William L. Sherrill, Hudson Falls, $29,483; Thomas H. Kerr, Troy, $31,110; E. J. Anderson, Menands, $31,396; John A. Jova, Inc., Newburgh, $32,083; Fred E. Ellis, Melrose, Mass., $35,189.

Road No. 1223, Washington County, 5.96 miles: E. J. Anderson, Menands, $62,261; F. A. Biggi, Brooklyn, $63,490; Ahearn Construction Co., Willimantic, Conn., $64,210; Brown & Lowe Co., Schenectady, $66,010; C. W. Tryon, Boyntonville, $66,791; Brady-Oltarsh Construction Co., New York, $66,960; Criswell & Mallory, Inc., Mechanicsville, $67,589; Richard Hopkins, Troy, $67,875; Kingsbury Construction Co., Hudson Falls, $68,119; John A. Jova, Inc., Newburgh, $70,918; Fred E. Ellis, Melrose, $73,801; Thomas H. Kerr, Troy, $78,165. Noted May 6.

✚**Canastota, N. Y.**—The contract for laying 7216 sq.yd. of pavement has been awarded to DEWHURST & DE VAUL, at Utica, at $15,192.

✚**Little Falls, N. Y.**—The contract for paving Garden St. has been awarded to WARREN BROS., Boston, at $17,479.

✚**Mineola, N. Y.**—A contract for street improvements at Mineola Blvd. has been awarded to the HUMPHRY CONTRACTING CO., Freeport, at $10,000. Noted May 6.

✚**New York, N. Y.**—(Borough of Bronx)—(Official)—Contracts have been awarded for paving East 174th St. from Southern Blvd. to Bryant Ave. to the ASPHALT CONSTRUCTION CO., at $4325; for improving Exterior Ave. from East 151st St. to Jerome Ave. to J. LEOPOLD, at $14,598, and Overing St. from Westchester to Walker Ave. to DI MINNA & DI BLASIO, at $5070. Noted Apr. 29 and May 13.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 10:30 a.m., June 1, by Douglas Mathewson, Borough Pres., for repaving Morris Ave. from 161st to 164th St. and the intersections of Melrose Ave. and 153d, 154th, 156th, 158th and 162d St., for improving Austin Pl. from East 144th to 149th St. and for paving Gouveneur Pl. from Park to Washington Ave. and Commonwealth Ave. from Merrill St. to Tremont Ave.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m., June 2, by Maurice E. Connolly, Borough Pres., for improving Franklin St. from Van Alst Ave. to Woolsey St., 46th St. (National Ave.) from Jackson to Fillmore (Prometcha) Ave., 14th St. from Seventh to Eighth Ave., Eighth Ave. from 13th to 14th St., Harris Ave. from Crescent to Prospect St., Ralph St. from Brooklyn Borough line to Woodward Ave. and Steinway Ave. from Jackson to Washington Ave.

Phelps, N. Y.—Bonds for $21,000 have been sold, the proceeds of which will be used for paving Main St.

Scarsdale, N. Y.—Bonds for $75,000 have been sold, the proceeds of which will be used for improving highways in Scarsdale.

Troy, N. Y.—Bids will be received until 11 a.m., June 1, by the Board of Contract and Supply for improving Fourth St. from Fulton to Congress St. and Hoosick St. from Tenth St. to the old city line.

Union, N. Y.—Bonds for $38,900 were sold May 17, the proceeds of which will be used for improving streets.

Garfield, N. J.—The Board of Public Works plans to construct a boulevard from the Wessel Bridge at Market St. to River St.

Garfield, N. J.—The Borough Council will soon receive bids for paving Grand St. and Cambridge Ave. F. V. Romaglis is Borough Clk.

✚Jersey City, N. J.—Contracts have been awarded for paving Communipaw Ave. from Morris Canal to West Side Ave. to the VAN KEUREN SONS CO., and Wegman Parkway from Ocean Ave. to Van Cleef St. to P. REILLEY. Noted May 6.

Keyport, N. J.—The Board of Chosen Freeholders of Monmouth County, Freehold, plans to improve the road from Keyport to Morgan Station by paving with macadam.

★Rahway, N. J.—(Official)—Bids will be received until 8 p.m., June 8, by the Common Council for paving Milton Ave. from the Pennsylvania R.R. to St. Georges Ave.

Rutherford, N. J.—Bids will be received until May 28 by the town for improving Union Ave. Wise & Watson, Rutherford, is Engr.

Teaneck, N. J.—(Englewood post office)—Bids will be received until 1 p.m., May 28, by Ralph D. Earle, County Engr., Hackensack, for paving Schraabenberg Rd.

✚Easton, Penn.—The contract for repaving South Main St. with brick has been awarded to KORP & KORP, Easton, at $38,000.

Northumberland, Penn.—Press reports state that the Borough Council plans to pave one mile of Queen and Water St.

✚Pittsburgh, Penn.—The contract for paving Hamilton Ave. from Fifth to Frankstown Ave. has been awarded to the M. O'HERRON CO., at $49,000.

✚Washington, Penn.—Contracts have been awarded for road improvements as follows: Washington-Bethany Rd., REED, LIGGETT & BRITT, Washington, at $16,548; Taylor's Run Extension, THOMAS ARRIGO, Charleroi, at $18,164; West Alexander-Dunsfort Rd., WILLIAM PICKETT & CO., Washington, at $6777. Noted Apr. 29.

Baltimore, Md.—Press reports state that the Paving Commission plans to pave Lombard and Washington St.

Boydton, Va.—The Commissioners of Mecklenburg County plan to construct approximately 40 miles of road. Bonds for this purpose were sold Apr. 12. Noted Feb. 4, Mar. 4 and 25.

Houston, Va.—At a recent election the citizens of Red Bank Magisterial District, Halifax County, voted in favor of issuing $50,000 in bonds, the proceeds of which will be used for constructing and improving roads.

✚Independence, Va.—A contract for constructing four miles of graded road from Independence eastward, has been awarded to HARTMAN & ALBERT, Shawsville, Va., at $7500.

Fairmont, W. Va.—An election will be held June 21 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for constructing roads in Fairmont District, Marion County. Noted May 13.

Grafton, W. Va.—Bids will be received until 9 a.m., June 14, by the City Commission improving a number of streets. J. M. R. Fortney is City Clk.

Parkersburg, W. Va.—Press reports state that an election will be held June 22 to vote on the question of issuing $47,500 in bonds, the proceeds of which will be used for improving roads in Wood County.

Stealy Heights, W. Va.—(Clarksburg post office)—At a recent election the citizens voted in favor of issuing $30,000 in bonds, the proceeds of which will be used for paving streets. Noted May 13.

✚Wayne, W. Va.—The contract for constructing a road between the Cabell County line and Twelve Pole has been awarded by the Commissioners of Wayne County to the BRUBAKER CONSTRUCTION CO., at $53,400.

✚Bryson City, N. C.—A contract for constructing eight miles of road in Swain County has been awarded to PHILLIPS MUNDAY, at approximately $100,000. Noted Apr. 1.

Carthage, N. C.—An election will be held June 15 to vote on the question of issuing $5000 in bonds, the proceeds of which will be used for constructing roads in Sandhills Township, Moore County.

Dobson, N. C.—Bonds for $35,000 were voted at a recent election, the proceeds of which will be used for constructing roads in Elkin Township, Surry County.

Hamlet, N. C.—The city plans to improve a number of streets and sidewalks.

Henderson, N. C.—At a recent election the citizens of Vance County voted in favor of issuing $50,000 in bonds, the proceeds of which will be used for constructing roads.

Hertford, N. C.—Press reports state that the city plans to issue $8000 in bonds, the proceeds of which will be used for street paving.

Roxboro, N. C.—At a recent election the citizens of Person County voted in favor of issuing $75,000 in bonds, the proceeds of which will be used for constructing roads in Roxboro Township.

Macon, Ga.—Bids will be received until June 1 by D. S. Jones, City Clk., for paving various streets. J. J. Gaillard is City Engr.

Ft. Myers, Fla.—At a recent election the citizens of Lee County voted in favor of issuing $177,500 in bonds, the proceeds of which will be used for constructing hard surfaced roads.

Tallahassee, Fla.—Bonds for $34,000 were voted at a recent election, the proceeds of which will be used for street paving.

✚West Palm Beach, Fla.—See item under "Sewers."

Camden, Ala.—Bids will be received until June 7 by the Commissioners of Wilcox County for constructing a part of the Selma and Mobile Rd., starting near the Dallas County line.

✚Russellville, Ala.—The contract for constructing a portion of the old Fulton Rd. from Russelville to Red Bay has been awarded to NEWELL BROS., Birmingham, at about $50,000. Noted Apr. 22.

Canton, Miss.—The Supervisors of Madison County plan to construct roads in District No. 1. Bids will be received early in July.

Raymond, Miss.—Bids will be received until June 7 by W. W. Downing, Chancery Clk., for graveling Peachtree and Hazel St.

Vicksburg, Miss.—Bids will be received until June 7 for constructing sidewalks in sections of various streets. J. J. Hayes is Mayor.

Chattanooga, Tenn.—(Official)—Bids will be received until 11 a.m., May 31, by the County Judge for constructing Lookout Mountain Pike.

Newport, Tenn.—The citizens of Cocke County voted in favor of issuing $200,000 in bonds, the proceeds of which will be used for constructing roads.

Waverly, Tenn.—The Commissioners of Humphreys County contemplate an expenditure of $225,000 for constructing 225 miles of road. Bonds for this purpose were recently voted. Noted May 13.

Cincinnati, Ohio—Bids will be received until June 18 by the Commissioners of Hamilton County for improving Ebenezer Rd. from Werk Rd. to Cleves and Bridgeton Pike, Poole Rd. from Colerain Pike to the Springfield Rd., and Winton Rd. from North Bend to Mill Rd.

Cleveland, Ohio—(Official)—Bids will be received until noon, June 2, by the Commissioner of Purchases and Supplies for improving East 72nd St. from St. Clair Ave. to the New York Central R.R.

Cleveland, Ohio—(Official)—Bids will be received until 10 a.m., June 16, by the Board of Commissioners of Cuyahoga County for improving Libbey Rd. from Broadway Ave. to Center Rd.

Cleveland Heights, Ohio—(Warrensville post office)—(Official)—Bids will be received until noon, June 7, by H. H. Canfield, Village Clk., for grading, draining and flagging Beechwood Ave.

✚Columbus, Ohio—Contracts have been awarded for paving Tenth Ave. from High St. to Neil Ave., to the ANDREWS ASPHALT PAVING CO., at $11,000; Grant Ave. from Broad to Maghten St. to the CLEVELAND TRINIDAD PAVING CO., at $11,000; Fourth St. from Hudson St. to Indianola Ave. to B. F. PATTERSON, at $13,000.

Fremont, Ohio—The lowest bid received for paving West State St. was that of Ziegler & Reardon, at $24,000.

Polk, Ohio—(Official)—Bids will be received until noon, June 21, by Frederick Harstell, Clk. of the Bd. Trustees of Jackson Township, Ashland County, for the sale of $45,000 in bonds, the proceeds of which will be used for grading, draining and macadamizing roads in Jackson Township.

✚Toledo, Ohio—(Official)—The contract for improving Copeland Blvd. has been awarded to RUSSELL & JENNISON CO., Nicholas Bldg., Toledo. Noted Apr. 15.

✚Warren, Ohio—The contract for paving Mahoning Ave. had been awarded to DENNIS & DAUGHERTY, at $21,000.

West Alexandria, Ohio—The City Council has authorized Smith & Boulay Co., Nasby Bldg., Toledo, to prepare plans for paving Dayton Ave. and Main St.

Evansville, Ind.—(Official)—All bids received Apr. 22 for improving Oak and Cherry St. and Chandler Ave. were rejected. Noted Apr. 15.

✚Indianapolis, Ind.—The contract for improving Burdsal Parkway has been awarded to the S. M. TIMBERLAKE CO., at $21,336.

Ann Arbor, Mich.—(Official)—Bids will be received until June 2 by the Board of Public Works for constructing approximately 20,000 sq.yd. of asphaltic concrete paving. Manley Osgood is City Engr.

★Sault Ste Marie, Mich.—(Official)—Bids will be received until 4 p.m., June 14, by the Board of Public Works for constructing concrete pavement on Portage Ave. from Bingham Ave. to the Portage Ave. bridge.

✚Springfield, Ill.—Bids were received May 20 by the State Highway Commission and contracts awarded for road construction as follows: Saline County, Section A, ERNEST BERNS, Terre Haute, at $9000; Edgar County, Section C, ALLEN J. BARRISH, Paris, at $2780; Henry County, Sections A and B, GROHNE CONSTRUCTION CO., Joliet, at $19,330; McHenry County, Sections C, D, E and F, C. A. WILLISTON, Chicago, at $11,370; Marion County, Section B, H. H. HALL CONSTRUCTION CO., East St. Louis, Ill., at $4890. Noted May 13.

✚Amherst, Wis.—The contract for paving Main St. has been awarded to FRED EUL, Menasha, at $9000.

✚Delevan, Wis.—A contract for paving various streets has awarded to the BIRDSALL-GRIFFITH CONSTRUCTION CO., Racine, at $28,875. Noted Apr. 15.

✚Kaukauna, Wis.—The contract for paving Wisconsin and Main Ave., Lawe and Canal St. with asphalt has been awarded to the WHITE CONSTRUCTION CO., Milwaukee, at $35,000.

Milwaukee, Wis.—Bids will soon be received for paving Grand St. from Fourth to Ninth St. with sandstone, creosote block or vitrified brick. George Staal is City Engr.

✚Milwaukee, Wis.—Contracts have been awarded by the Highway Commissioner of Milwaukee County for paving roads with concrete as follows: Lake Rd., PAUL GOLLINCK, 887 23rd Ave., Milwaukee, at $41,000; North Cape Rd., DELTA CONSTRUCTION CO., Escanaba, Mich., at $32,700; Beloit Rd., KROENING CONSTRUCTION CO., 708 Majestic Bldg., Milwaukee, at $13,700 and Layton Ave., GENERAL CONSTRUCTION CO., 857 Eighth Ave., Milwaukee, at $15,000.

Racine, Wis.—Bids will be received until 10 a.m., June 12, by the Board of Works for paving Center St. with brick. P. H. Connolly is City Engr.

Davenport, Iowa—(Official)—Bids will be received until June 1 by J. W. Crowley, Comr. Pub. Wks., for paving Ninth St. with brick. The estimated cost of the work is $7000.

Winona, Minn.—Bids will be received until 2 p.m., May 28, by C. W. Anding, Audr. of Winona County, for the sale of $30,000 in bonds, the proceeds of which will be used for constructing and improving roads.

Falls City, Neb.—Bids will be received until 1 p.m., May 29, by George Riechers, City Clk., for constructing concrete pavement in District No. 13.

✚**Kalispell, Mont.**—A contract for constructing concrete side-walks and curbs has been awarded to the TWO MIRACHE CORPORATION, Kalispell.

✚**Angleton, Tex.**—A contract for improving 30 miles of road in Road District No. 6, Brazoria County, has been awarded to W. R. HADEN & CO., Galveston, at approximately $100,000.

Austin, Tex.—An election will be held June 9 to vote on the question of issuing $425,000 in bonds, the proceeds of which will be used for street improvements.

✚**Floresville, Tex.**—The Commissioners' Court of Wilson County has awarded the contract for the construction of county roads to N. A. DAWSON, Austin, at $27,000.

Halletsville, Tex.—An election will be held June 29 to vote on the question of issuing $150,000 in bonds, the proceeds of which will be used for constructing roads in District No. 3, Lavaca County.

Sherman, Tex.—An election will be held June 16 in Road District No. 4, Grayson County, to vote on the question of issuing $60,000 in bonds, the proceeds of which will be used for constructing gravel roads.

Timpson, Tex.—At a recent election the citizens voted in favor of issuing $10,000 in bonds, the proceeds of which will be used for constructing concrete sidewalks.

Wichita Falls, Tex.—Press reports state that the city contemplates constructing about two miles of concrete pavement. L. C. Hinckley is Engr.

✚**Longmont, Colo.**—A contract for paving various streets has been awarded to JOHN LARSON, Lyons, Colo.

Miami, Ariz.—See item under "Sewers."

✚**Anacortes, Wash.**—The contract for paving South Commercial Ave. has been awarded to the WASHINGTON PAVING CO., Savage-Scofield Bldg., Tacoma, at $23,777.

✚**Concrete, Wash.**—The contract for paving West Main St. has been awarded to the SKAGIT CONSTRUCTION CO., Mt. Vernon, at $10,512. Other bids were: M. T. Chamberlain, Seattle, $11,300; M. E. Norris, Burlington, $11,078; D. H. Traphagen, Seattle, $11,570; G. L. Wentzel & Doyle, Seattle, $11,024; H. Troutman, Bellingham, $11,024; W. H. Ball, Seattle, $11,256. Noted May 6.

✚**Ellensburg, Wash.**—The contract for improving the Dolarway Rd. has been awarded to the WASHINGTON PAVING CO., Tacoma. Noted Apr. 22.

Newport, Wash.—Bids will be received until June 1 by the Commissioners of Pend Oreille County for improving permanent highway No. 5. Plans are being prepared by H. A. Sewell, County Engr.

Oroville, Wash.—Bids will soon be received by the City Council for constructing concrete walks and macadamizing Main, Victoria, Vancouver and Similkameen Ave. The estimated cost of the work is $11,000.

Port Townsend, Wash.—The Commissioners of Jefferson County plan to construct three miles of road on the Clallam County Highway. The estimated cost of the work is $10,000.

Seattle, Wash.—Bids will be received until June 1 by the Commissioners of King County for constructing the D. C. Mitchell Rd. near Seattle. The estimated cost of the work is $50,000.

Stevenson, Wash.—Bids will be received until June 8 by Charles H. Nellor, Audr. of Skamania County, for constructing one mile of the Stevenson-Carsen Rd. The estimated cost of the work is $18,000.

Tacoma, Wash.—The Metropolitan Park Commission is preparing plans for the construction of concrete sidewalks and seven miles of hardsurfaced roads.

✚**Walla Walla, Wash.**—Contracts have been awarded for paving Whitman St. to the H. L. WILSON CO., Walla Walla, at $18,975, and Palouse St. to the WARREN CONSTRUCTION CO., at $18,720. Noted Apr. 8.

Condon, Ore.—Bids will soon be received by the Commissioners of Gilliam County for hardsurfacing one mile of road. This road will connect with the city pavement.

✚**Portland, Ore.**—The contract for paving East Water St. from East Washington to East Oak St. has been awarded to MONTAGUE-O'REILLY CO., at $9411.

✚**Brawley, Calif.**—The contract for improving Main St. from Ninth to Tenth St. has been awarded to the CALIFORNIA-ARIZONA CONSTRUCTION CO., at $16,126.

✚**Cucamonga, Calif.**—The contract for constructing 5.523 miles of concrete highway on Archibald St. has been awarded to L. FLEMING & SON, San Geronimo, at $16,004.

✚**Los Angeles, Calif.**—The contract for improving Clinton St. from Andrews to Wilton Pl. has been awarded to the FAIRCHILD-GILMORE-WILTON CO., 396 Pacific Electric Bldg., at $12,288.

Los Angeles, Calif.—Bids will be received until 2 p.m., June 1, by the Board of Supervisors of Los Angeles County, for road improvements in District No. 68. The estimated cost of the work is $18,186.

✚**Los Angeles, Calif.**—The contract for improving Dalton Ave. from Santa Barbara to Vernon Ave. has been awarded to BRYANT & AUSTIN, at $11,276.

✚**Napa, Calif.**—A contract for street paving has been awarded to GEORGE ERRINGTON, at $6221.

✚**Petaluma, Calif.**—The City Council has awarded a contract for street paving to EATON & SMITH, San Francisco, at $14,665.

✚**Redwood City, Calif.**—The Board of Supervisors of San Mateo County has awarded contracts for highway construction as follows: BLANCHARD-BROWN CO., San Francisco, 8.932 miles, at $31,367; JAMES WILLISON, Redwood City, 6.005 miles, at $25,665; WRIGHTSON, ANDERSON & YOST, Redwood City, 4.23 miles, at $28,558.

✚**Salinas, Calif.**—The Board of Supervisors of Monterey County has awarded a contract for county highway construction to the GRANITE ROCK CO., Salinas, at $12,286.

San Mateo, Calif.—The City Trustees will soon receive bids for paving 38 blocks in the district bounded by Fifth, El Camino Real, Peninsular and D St. E. F. Early is City Clk.

San José, Calif.—(Official)—Bids will be received until 11 a.m., June 7, by Henry Pfister, Clk., Bd. of Supervisors of Santa Clara County, for constructing the San José and Alviso Rd. in Road District No. 3.

Edmonton, Alta.—Contracts will soon be awarded for paving Fortage St., the estimated cost of which is $87,000, and for laying 25 units of plank walks, which will cost approximately $60,000.

INDUSTRIAL WORKS

Portland, Maine—Plans have been prepared for the construction of an eight-story, 90x300-ft. reinforced-concrete warehouse for the Main Cold Storage & Warehouse Co. The estimated cost is $700,000.

✚**Auburn, N. Y.**—The Columbia Rope Co. has awarded the contract for the construction of two warehouse additions to JOHN W. FERGUSON & CO., Paterson, N. J. The estimated cost is $35,000.

Buffalo, N. Y.—The Polson Mfg. Co., 27 Chenango St., will build a two-story, 85x100-ft. reinforced-concrete factory at Main St. and Lafayette Ave. The estimated cost is $25,000.

✚**Fulton, N. Y.**—The Oswego Falls Pulp & Paper Co. has awarded the contract to the WALTER BRADLEY CO., for the construction of a storehouse and mill to cost $300,000.

✚**New York, N. Y.**—(Borough of Manhattan)—(Official)—The contract has been awarded to the RAYMOND CONCRETE PILE CO., 140 Cedar St., for concrete piling for the foundation of a warehouse for the Eagle Pencil Co., 707 East 13th St. The general contract has been awarded to CHARLES A. COWEN & CO., 1123 Broadway. Buchman & Fox, Madison Ave. and 42nd St., is Arch.

✚**Rochester, N. Y.**—The Erdle Perforating Co., 171 York St., has awarded the contract to ALEXANDER SHUMWAY & CO., for the construction of a 60x60-ft. factory.

Rochester, N. Y.—The Genessee Brewing Co. will build a 65x116-ft. addition to its malt-house on Rau Pl. Mortensen & Co., 405 Lexington Ave., New York, N. Y., is Arch.

Rochester, N. Y.—The Rochester Ice Cream Co. will build a three-story, 100x120-ft. reinforced-concrete factory on St. Paul St. Robert J. Reidpath, Builders Exchange, Buffalo, is Arch.

Syracuse, N. Y.—Gordon A. Wright, Arch., Dillaye Bldg., is receiving bids for the construction of a three-story, 56x80-ft. reinforced-concrete addition to the plant of the H. H. Franklin Mfg. Co., Marcellus and South Geddes St. The estimated cost is $40,000.

Harrison, N. J.—The Crucible Steel Co. of America will expend $400,000 for the construction of brick and steel additions to its plant. R. H. Illingworth is Supt. Noted Apr. 15.

Glen Olden, Penn.—The H. K. Mulford Co., 412 South 13th St., Philadelphia, Penn., will build a four-story, brick and concrete addition to its plant.

✚**McKeesport, Penn.**—(Official)—The National Tube Co., Frick Bldg., Pittsburgh, has awarded the contract to the RAYMOND PILE CO., 140 Cedar St., New York, N. Y., for concrete piles for foundations at its proposed plant. P. C. Patterson, 905 South Union Ave., Pittsburgh, Penn., is Ch. Engr.

Philadelphia, Penn.—Edgar V. Seeler, Arch., 1010 South Juniper St., has prepared plans for a nine-story, 95x140-ft. brick, terra cotta and steel addition to the Evening Bulletin Bldg. at Juniper and Filbert St.

Wilkes-Barre, Penn.—Nelson Bros. will build a five-story brick warehouse on Baltimore St., to cost about $10,000. Henry Maier is Arch.

York, Penn.—The American Roofing Co. has secured a site on West King St., and will build a 60x160-ft. brick and reinforced-concrete building, a 30x45-ft. boiler house, and 24x30-ft. building.

✚**Washington, D. C.**—The Fries, Beall & Sharpe Co., 522 Tenth St., N. W., has awarded the contract to the DAVIS CONSTRUCTION CO., Union Trust Bldg., for the construction of a seven-story brick warehouse at 734 Tenth St., N. W., to cost $35,000. C. A. Didden & Son, Corcoran Bldg., is Arch.

Wheeling, W. Va.—The John Wenzel Packing Co. will rebuild its plant recently destroyed by fire.

Ft. Thomas, Ky.—(Official)—James T. Ford, Pres., Highland Film Corporation, 402 Strand Theater Bldg., Cincinnati, Ohio, advises us that work will begin about Aug. 1 on the construction of seven two- and three-story reinforced-concrete buildings, to cover a ground area of 100 acres. The estimated cost is $750,000. Zettle & Rapp, 607 Johnston Bldg., Cincinnati, Ohio, is Arch. Noted Apr. 29.

✚**Cincinnati, Ohio**—The William Koehl Co., William Koehl, Pres., Jamestown, N. Y., has awarded the contract for the construction of a four-story, 100x100-ft. building on Hulbert Ave. to the FERRO CONCRETE CONSTRUCTION CO., Richmond and Harriet St.

Cleveland, Ohio—Robert T. Mitchell, Garfield Bldg., plans the construction of a six-story, 50x444-ft. warehouse on East 55th St., to cost approximately $100,000.

✚**Cuyahoga Falls, Ohio**—Ernest McGeorge, Engr., 853 Leader News Bldg., has awarded the contract for the construction of a plant for the Falls Rubber Co. to the AKRON STORAGE & CONTRACTING CO., at $28,250. Noted May 6.

Dayton, Ohio—The Mercantile Corporation plans the construction of a $1,000,000 plant. Howard F. Marston is Pres.

✚Springfield, Ohio—J. A. POSS, Springfield, has been awarded the contract for the construction of an addition to the factory of the Johnson Mfg. Co. on Miami St., to cost $15,000.

Hartford City, Ind.—The American Window Glass Co., Hartford City, will make improvements to its plant to cost about $100,000.

East St. Louis, Ill.—The Union Sand & Cement Co. will construct a sand hoisting plant, at an estimated cost of $10,000.

Eau Claire, Wis.—The Drummond Packing Co. contemplates the construction of a $75,000 cold-storage and refinery building.

✚Ladysmith, Wis.—H. E. Young, Gen. Mgr., Schram Mfg. Co., has awarded the contract to W. E. BOLLEY, Oshkosh, Wis., for the construction of a four-story, 60x132-ft. brick factory.

✚Madison, Wis.—The Gould, Wells & Blackburn Co. has awarded the contract to A. D. & J. V. FREDERICKSON, for the construction of a four-story warehouse, to cost about $40,000. Alfred C. Clas, Colby-Abbott Bldg., is Arch. Noted Apr. 15.

✚Madison, Wis.—The J. I. Case T. M. Co., Racine, has awarded the contract for the construction of its two-story, 100x140-ft. brick and concrete branch plant to JOHN T. BLAKE. The estimated cost is $45,000. P. M. Adams is Arch.

Milwaukee, Wis.—The Foltz Engineering Co., St. Paul, Minn., is preparing plans for a 2,500,000 bu. reinforced-concrete elevator for the Chicago & Northwestern Ry. W. W. Finley, 226 West Jackson Blvd., Chicago, Ill., is Ch. Engr.

Milwaukee, Wis.—The B. F. Johnson Soap Co., Fourth and Fowler St., will add four stories to its warehouse at Fifth and Clybown St. The estimated cost is $60,000.

✚West Allis, Wis.—Klug & Smith, Engr., Mack Bldg., Milwaukee, Wis., has awarded the contract for carpenter work to MADSON, CHRISTENSEN & INGBRETSON, and mason work to ROBERT L. REISINGER, for the five-story, 90x120-ft. and the one-story, 85x200-ft. brick addition to the plant of the Allis-Chalmers Mfg. Co. Noted Feb. 18.

West Allis, Wis.—The Federal Malleable Co., 64th Ave., will construct an addition to its plant.

✚Minneapolis, Minn.—The Allen Square Realty Co. has awarded the contract to the COWLES-VANDANAKER CO., 604 Chamber of Commerce, for the construction of a three-story, concrete warehouse at Broadway and Seventh St. The estimated cost is $35,000.

Kansas City, Mo.—Bids will be received until June 7 for the construction of a nine-story, 120x180-ft. reinforced-concrete warehouse and factory for the Ridenour-Baker Grocery Co. McKechnie & Trask, Lathrop Bldg., is Arch.

Pharr, Tex.—(Official)—A. H. Fairchild, Arch., Houston, Tex., advises us that work will soon be started on a three-story, 80x200-ft. corrugated iron, with a wooden frame, plant for the Pharr Milling Co., to cost $40,000. Noted Apr. 22.

✚Walla Walla, Wash.—The Oregon-Washington R.R. & Navigation Co. has awarded the contract for the construction of a brick roundhouse to MOORE BROS. Estimated cost, $30,000.

Portland, Ore.—Mason, Ehrman & Co. will build a three-story warehouse at 15th and Overton St., to cost $35,000. Doyle & Paterson is Arch.

✚Oakland, Calif.—The City Council has awarded the contract for a 91x402-ft. warehouse at Jefferson and Grove St. to DYER BROS., 17th and Kansas St., at $14,406.

San Francisco, Calif.—Plans for the addition to the plant of the Merchants Ice & Cold Storage Co. at Lombard and Sansome St., have been revised by E. Kollofrath, Arch., 560 Belvedere St. One building will be constructed, instead of two, and the cost will be approximately $75,000.

✚San Francisco, Calif.—The Western Sugar Refinery Co. has awarded a contract for the construction of a refinery building at 23rd and Louisiana St. to the LINDGREN CO., at $126,000. Noted Dec. 31, Jan. 21 and Mar. 18.

Ridgetown, Ont.—The Ridgetown Milling Co. contemplates rebuilding its mill which was recently destroyed by fire with a loss of $30,000. A. S. Blight is Mgr.

FEDERAL GOVERNMENT WORK

Extension to Post Office—Concord, N. H.—Bids were received May 17 by the Supervising Architect, Treasury Dept., Washington, D. C., for the construction of an extension and for alterations to the post office at Concord, as follows: Westchester Engineering Co., White Plains, N. Y., $54,155; C. M. Leach, Boston, Mass., $47.883; Frank M. Weakley, Canton, Ohio, $56,231 and James Miles & Son Co., Worcester, Mass., $42,987. Noted Apr. 15.

Locomotive Crane—Boston, Mass.—Bids will be received until 11 a.m., June 12, by H. R. Stanford, Ch., Bureau of Yards and Docks, Navy Dept., Washington, D. C., for furnishing one locomotive crane at the Boston Navy Yard. Noted Jan. 28.

Pattern Shop Floor—Boston, Mass.—Bids were received May 15 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for furnishing the steelwork for a pattern shop floor, Building 42 E, Boston navy yard, as follows: Belmont Iron Works, Philadelphia, Penn., $7897; New England Structural Co., Boston, Mass., $7455; Chesapeake Iron Works, Baltimore, Md., $7436; Penn Bridge Co., Washington, D. C., $7935 and American Bridge Co., Baltimore, Md., $7375. Noted Apr. 29.

★Wharves—Woods Hole, Mass.—Bids will be received until noon, June 12, by Col. John Millis, Newport, R. I., for rebuilding wharves and building a new sea wall and coal house at the U. S. Bureau of Fisheries Station.

Post Office—Mt. Vernon, N. Y.—Bids will be received until 3 p.m., June 24, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for the construction complete of the U. S. post office at Mt. Vernon.

★Riprap—New York, N. Y.—Bids will be received until noon, June 25, at the U. S. Engineer Office, Room 707, Army Bldg., New York, for furnishing and placing riprap and repairing sea wall at Governors Island, New York Harbor.

★Riprap—Sandy Hook, N. J.—(Ft. Hancock post office) Bids will be received until noon, May 29, by Col. Freder V. Abbot, Army Bldg., Whitehall St., New York, N. Y., f riprap stone for repair and enlargement of sea wall at sou end of U. S. lands at Sandy Hook.

★Substructure—Erie Harbor, Penn.—Bids will be receiv until 11 a.m., June 19, by Capt. L. V. Frazier, Federal Bldg. Buffalo, N. Y., for constructing a concrete substructure o north pier, Erie Harbor.

★Machinery—Washington, D. C.—Bids will be received until 2 p.m., June, 8, by B. Sweeney, Dept. of the Interior, fo furnishing stokers, coal and ash handling machinery an other appliances for a power house.

✚School—Washington, D. C.—The contract has been awarded by the Commissioners of the District of Columbia to th MELTON CONSTRUCTION CO., Washington, at $121,000, for constructing school No. 175. Noted Apr. 8 and 22 and May 20

✚★Sewers—Washington, D. C.—The contract has been awarded for the construction of Arizona Ave. trunk sewer to WARREN F. BRENIZER CO., Washington, D. C., at $18,621. Noted May 6 and May 20.

★Sewer—Washington, D. C.—Bids will be received until 2 p.m., June 3, by the Commissioners of the District of Columbia, for constructing about 600 ft. of trunk sewer.

★Post Office and Courthouse—Charlotte, N. C.—Bids will be received until 3 p.m., July 2, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for constructing complete a post office and courthouse at Charlotte.

★Bank Protection Work—Augusta, Ga.—Bids will be received until noon, June 21, by Col. W. C. Langfitt, U. S. Engineer Office, Cavannah, for making repairs to bank protection of the Savannah River.

✚Post Office—Pensacola, Fla.—The contract for extension and betterments to the post office at Pensacola has been awarded to ALGERNON BLAIR, Montgomery, Ala., at $23,813. Noted Mar. 25 and May 6.

✚Building—Pensacola, Fla.—The contract has been awarded to HENRY MONK, Pensacola, at $9205, for constructing a toilet building and alterations to other buildings. Noted Apr. 22 and May 20.

Post Office—Laurel, Miss.—Bids were received May 18 by the Acting Supervising Architect, Treasury Dept., Washington, D. C., for the construction of a post office at Laurel, as follows: (a) limestone, (b) sandstone: C. O. Eure, Hattiesburg, (a) $70,482, (b) $71,782; R. P. Farnsworth & Co., Owensboro, Ky., (a) $74,000; John G. Unkefer & Co., Minerva, Ohio, (a) $68,065; Algernon Blair, Montgomery, Ala., (a) $76,185, (b) $78,500; Callahan-Mandl Construction Co., Chicago, Ill., (a) $74,318, (b) $75,500; Colonial Construction & Supply Co., Charlottesville, Va., (a) $73,464, (b) $76,138; Dabbs & Wetmore, Meridian, (a) $76,237, (b) $76,834; W. H. Fissell & Co., New York, N. Y., (a) $70,700, (b) $75,700; George A. Shaul, Seneca, Kan., (a) $71,264; George W. Stiles Construction Co., Chicago, Ill., (a) $74,829; Burke's Construction Co., Hattiesburg, (a) $72,274 and Dieter & Wenzel Construction Co., Wichita, Kan., (a) $77,987. Noted Apr. 15.

★Structural Metal—Vicksburg, Miss.—Bids will be received until noon, June 15, by the U. S. Engineer Office, Vicksburg District, Vicksburg, for furnishing steel lock gates, valves, Poiree trestles and operating machinery.

Building—New Orleans, La.—Bids were received May 15 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of a one-story frame dwelling for chief operator and a one-story frame dormitory for wireless operators at the naval station, New Orleans, as follows: T. J. Taylor, New Orleans, $8685; H. W. Bond & Bro., New Orleans, $6700; C. O. Eure, Hattiesburg, Miss., $7418; Henry Monk, Pensacola, Fla., $11.450. Noted Mar. 4.

★Power House—Ashland, Ky.—Bids will be received until 2 p.m., June 15, by Lieut.-Col. H. Jervey, U. S. Engineer Office, Cincinnati, Ohio, for building a power house at Dam No. 29, Ohio River, near Ashland.

★Steel Hull—Louisville, Ky.—Bids were received May 19 by Maj. J. C. Oakes, U. S. Engineer Office, Louisville, for a steel hull for dredge "Nolin River" as follows: Edward J. Howard, Jeffersonville, Ind., $9956; Dravo Contracting Co., Pittsburgh, Penn., $9375; American Bridge Co., Union Trust Bldg., Cincinnati, Ohio, $9889; Milwaukee Bridge Co., Milwaukee, Wis., $10,832; Charles Ward Engineering Works, Charleston, W. Va., $14,750; Dubuque Boat & Boiler Works, Debuque, Iowa, $10,888; Pittsburgh-Des Moines Steel Co., Pittsburgh, Penn., $11,125; Charles Hegewald Co., New Albany, Ind., $9799. Noted Apr. 29.

Post Office—Alliance, Ohio—The Acting Supervising Architect of the Treasury, Washington, D. C., has rejected all bids received Mar. 1, for the construction of a post office at Alliance. The lowest bidder, E. T. Abbott Construction Co., New York, N. Y., bid $77,500, for the construction of the building, while the amount available for the work was $107,000. Plans and specifications are being prepared for a building to be of all stone construction instead of brick and stone as under the earlier specifications. Noted Jan. 21 and Mar. 18.

✚Post Office—Toledo, Ohio—The contract for extension to the post office has been awarded to the BRIGHT CONSTRUCTION CO., Toledo, at $15,529, not including work on the third and fourth stories. Noted Mar. 18 and Apr. 29.

★Cribs and Superstructure—Harbor Beach, Mich. — Bids were received May 20 Lieut.-Col. Mason M. Patrick for constructing and placing two timber cribs and replacing with concrete timber superstructure at the breakwater as follows: Burk, Smith & Nelson, Muskegon, $64,787; John Ginzel, Detroit, $66,109; Greiling Bros. Co., Green Bay,, Wis., $73,935; William J. Meagher & Co., Bay City, $73,998; Great Lakes Dredge & Dock Co., Chicago, Ill., $78,336; Candler Dock & Dredge Co., Detroit, $90,471. Noted Apr. 15 and 29.

★Stone Riprap—Harbor Beach, Mich.—Bids were received May 19 by Lieut.-Col. Mason M. Patrick, Detroit, for furnishing and placing stone riprap at the breakwater, Harbor Beach as follows: William J. Meagher & Co., Bay City, $63,750; Coast & Lakes Contracting Corporation, New York, N. Y., $66,000; Greiling Bros. Co., Green Bay, Wis., $92,000; D. L. Taylor & Co., Inc., Medina, N. Y., $92,500; Great Lakes Dredge & Dock Co., $93,500 and Edward Gillen Dock, Dredge & Construction Co., Racine, Wis., $146,000. Noted Apr. 15 and 29.

✚**Dredging**—Keweenaw Bay, Mich.—The contract has been awarded to the ZENITH DREDGE CO., Duluth, Minn., at $51,945, for dredging in Ontonagon Harbor. Noted Apr. 29 and May 20.

Canal Work—Saco, Mont.—Bids were received May 12 by A. P. Davis, Ch. Engr., U. S. Reclamation Service, Malta, for canal work as follows: James O'Connor, Dodson, $15,615; Dooling Bros., Tampico, $15,800; W. J. Hoy Co., St. Paul, Minn., $17,850; Charles Wilhite & Co., Malta, $18,585; Jurgens & Knipe, Glasgow, $18,785 and Crandall Bros., Carmangay, Alta., Canada, $15,410. Noted Apr. 15.

★**Building**—Ft. Sam Houston, Tex.—Bids will be received until 11 a.m., June 4, by Constructing Quartermaster for constructing the commanding officers' quarters, barracks and stable.

Post Office—Park City, Utah—The Acting Supervising Architect, Treasury Dept., Washington, D. C., has rejected all bids received for the construction of a post office at Park City as they were in excess of the amount available. Noted Apr. 8 and May 20.

★**Reclamation Work**—Provo, Utah—Bids will be received until 2 p.m., June 16, by A. P. Davis, Ch. Engr., U. S. Reclamation Service, Provo, for reclamation work.

✚**Bridge**—Ashford, Wash.—The contract has been awarded to M. HUGH & CREELMAN, Tacoma, for constructing a concrete bridge over Tahoma Creek, Mt. Rainier Park. Noted Apr. 22.

Building—Marshfield, Ore.—Bids were received May 19 by the Captain Commandant of the Coast Guard Service, Washington, D. C., for the construction of a Coast Guard station, keeper's quarters and accessories, launchway and jetty on the south side of the channel at Coos Bay, Ore., as follows: E. T. Terhan, $29,900; S. C. Small, $35,624; John William Hillstrom, $29,500; Hibarger & Telander, $39,286; Johnson, Larson & Payne, $29,848; McLain, McLain & Wright, $37,950; John Monk, San Francisco, Calif., $40,000; Thomson Bridge Co., San Francisco, Calif., $35,600; Fish, Tlymale & Steinhoff, Bandon, Ore., $62,600; Miami Quarry Co., Portland, Ore., $46,540; R. McLean and C. H. Peterson, San Francisco, Calif., $31,075; Buckley Construction Co., Portland, Ore., $14,675 (part). Above bidders of Marshfield, Ore., unless otherwise specified.

Dredging—San Francisco, Calif.—Plans and specifications are being prepared by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for dredging and extension to wharf at San Francisco.

MISCELLANEOUS

✚**Dredging**—Boston, Mass.—The contract for dredging Bass River, Dennis, Yarmouth and Deacon's Pond Harbor has been awarded to the EASTERN DREDGING CO., 172 Condor St., East Boston, at about $25,000. Noted Apr. 2 and Apr. 22.

Park Improvements, Etc.—Boston, Mass.—According to press reports the city contemplates issuing $250,000 in bonds for improvements to Ronan Park, Dorchester District, and the playground in Ward No. 19. James Donovan is City Clk.

Sea Wall—Boston, Mass.—The following bids for the construction of a sea wall at Vineyard Haven Harbor were received by the Harbor and Land Commissioners: Herbert N. Hinckley, Vineyard Haven, $6.75 per cu.yd.; Dennis F. Crowley, 658 Adams St., East Milton, $6.80; A. Williams & Co., 3 Cotting St., Boston, $7.45; John R. Burke, 78 Devonshire St., Boston, $7.64; Susi & Williams, 3 North Sq., Boston, $8.51; Cavanagh Co., 166 Devonshire St., Boston, $8.74; James H. Norton, Vineyard Haven, $9; Benjamin C. Cromwell, Vineyard Haven, $10; George T. Rendle, 270 Condor St., East Boston, $10; Coast & Lakes Contracting Corporation, 41 Broad St., New York, $10.79; James H. Connolly, Hyannis, $14.10. William F. Williams, State House, is Ch. Engr.

Fire Escapes—Boston, Mass.—Bids will be received until June 1 by the School Commissioners, 1009 City Hall Annex, for erecting fire escapes on three public schools.

Cable—Boston, Mass.—Bids will be received until June 2 by the Fire Department for furnishing about 60,000 lin.ft. of rubber insulated lead-covered cable. John Grady, Bristol St., is Fire Comr.

Sea Wall—Boston, Mass.—(Official)—Bids will be received by the Board of Harbor and Land Commissioners until 11 a.m., June 2, for the construction of a sea wall on the east bank of the Connecticut River. William F. Williams is Ch. Engr.

Motor Fire Apparatus—Malden, Mass.—The City Council has passed a resolution to appropriate $35,000 for the purchase of motor fire apparatus.

Motor Fire Apparatus—Quincy, Mass.—(Official)—Bids will be received by Chester I. Campbell, Mayor, until noon, May 29, for furnishing two auto fire trucks.

★**Refrigeration Equipment**—Beacon, N. Y.—(Official)—Bids will be received by John B. Riley, Supt. of Prisons, Capitol, Albany, until 2:30 p.m., June 2, for refrigeration equipment for the storehouse at the Matteawan State Hospital, Beacon. Lewis F. Pilcher, Albany, is State Arch.

Subway Station—New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received by the Public Service Commission, 154 Nassau St. (Borough of Manhattan), until 12:15 p.m., May 28, for the construction of the station finish of the Fourth Ave. subway, a part of the Broadway-Fourth Ave. Rapid Transit R.R. from center of Flatbush Ave. extension to a point on Fourth Ave., about 150 ft. south of 42d St.

✚**Plaza**—New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract has been awarded by Cabot Ward, Pres., Park Bd., Municipal Bldg., for the reconstruction of the Prospect Park Plaza at Ninth Ave. and 15th St., to WARD & TULLY, INC., West 20th St. (Borough of Brooklyn), at $13,586. Noted May 6 and 20.

✚**Locomotive Cranes**—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract has been awarded by the Department of Street Cleaning for furnishing and delivering four locomotive cranes to the DAVENPORT LOCOMOTIVE WORKS, 50 Church St., New York, N. Y., at $12,000. Noted Apr. 29 and May 20.

✚**Trailers**—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract has been awarded by J. T. Fetherston, Comr., Dept. of Street Cleaning, Municipal Bldg., for furnishing and delivering 11 trailers to CHARLES HAVAS & CO., INC., 509 East 18th St., New York, at $8910.

✚**Pumping Engines**—New York, N. Y.—(Borough of Manhattan)—The contract has been awarded by the Fire Department for furnishing and delivering six self-propelled gasoline pumping engines to the AHRENS FOX FIRE ENGINE CO., Cincinnati, Ohio, at $43,338. Noted Apr. 15.

✚**Motor Trucks**—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract has been awarded for furnishing and delivering 12 motor driven city service hook and ladder trucks to the INTERNATIONAL MOTOR CO., West End Ave. and 64th St., at $52,152. Noted Apr. 22 and May 6.

Track Materials—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 12:15 p.m., June 11, by the Public Service Commission, 154 Nassau St., for furnishing track materials for use in the construction of the Rapid Transit Railroads.

Screens—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids have been received for constructing and installing fly screens on windows, transoms and doors of certain buildings under the jurisdiction of the Department of Public Charities. The following bids are for work included under titles "A" and "B": Frank Droesch, (B) $25,990; Theriault Mfg. Co., (B) $18,913; Louis Weschler, (A) $42,600, (B) $19,800; William H. Jamouneau Co., 582 Broad St., Newark, N. J., (A) $33,750, (B) $15,839; Protector Ventilator Co., (B) $27,970. Noted May 13.

★**Steam Roller**—New York, N. Y.—(Borough of Queens)—Bids will be received by Maurice E. Connolly, Borough Pres., until 11 a.m., June 2, for furnishing and delivering one steam roller in the borough.

Screen Work—New York, N. Y.—(Borough of Richmond)—(Official)—The following are the bids received for the installation of certain screen work on the windows and balconies of various buildings of the Sea View Hospital: Protective Ventilator Co., 110 West 32nd St., $11,777; W. H. Jamouneau Co., $13,650; Louis Weschler, $18,500; Theriault Mfg. Co., $13,989; C. L. Dooley, Inc., $16,852. Noted May 13.

Park Improvements—Syracuse, N. Y.—The Common Council has passed an ordinance to issue $93,000 in bonds for park improvements. W. T. Wooley is City Engr.

✚**Dredging**—Atlantic City, N. J.—The contract for dredging portions of Clam Creek and Delta Basin has been awarded to the HILL DREDGING CO., Atlantic City, at .134c. per cu.yd. The work requires the dredging of about 103,800 cu.yd. Noted May 6.

✚**Tank Steamer**—Camden, N. J.—The contract for the construction of a new tank steamer for the Petroleum Transportation Co. has been awarded to the NEW YORK SHIPBUILDING CO., at about $1,000,000.

Park Improvements—Newark, N. J.—The Board of Freeholders has approved of a bond issue for $250,000 to be used by the Essex County Park Commission for an addition to West Side Park and improvements on the South Mountain Reservation. Noted May 20.

Elimination of Grade Crossings—Perth Amboy, N. J.—Samuel J. Mason, City Survr., and associate engineers have presented a report to the Board of Aldermen estimating the cost of the elimination of five railroad grade crossings as follows: by depression, $900,000; by elevation, $300,000. The report will be tendered to the Board of Public Utility Commissioners.

★**Shore Protection Work**—Stone Harbor, N. J.—(Official)—Bids will be received by the Borough Council until 8 p.m., June 7, for shore protection work at Stone Harbor. Harry E. Weir, Wildwood, N. J., is Engr. and Leo F. McCraven is Borough Clk.

River Wall—Johnstown, Penn.—According to press reports, A. B. Curry, Borough Engr., has prepared plans for the construction of a river wall along River Ave.

Tunnel—Pittsburgh, Penn.—Bids will soon be received by the County Commissioners for building a traffic tunnel through Mount Washington to the South Hills.

Drainage—Toccoa, Ga.—Press reports state that the Broad River Drainage District will be established in Stephens County. The district will lie between Hayes Bridge, Stephens County, and Jackson's Mill Bridge, Jackson County, a distance of 16 miles. The cost would be about $100,000.

Docks, Etc.—Jacksonville, Fla.—Press reports state that A. D. Mendenhall is making preliminary surveys for the Cochman-Taliaferro-Cummers interests at Commodore Point. Docks, warehouses, freight yards, etc., are contemplated.

✚**Sea Wall**—West Palm Beach, Fla.—The contract for the construction of a sea wall has been awarded to JONAS & GARRETSON, West Palm Beach, at $36,598. The J. B. McCrary Co., Atlanta, Ga., is Engr. Noted May 6.

✚**Levee Work**—Clarksdale, Miss.—The contract for laying about 138,000 sq.yd. of concrete 3 in. thick on the river side slope of the levee has been awarded to W. R. ELLIS, Clarksdale, at $57,205. J. B. Ferguson is Engr. Noted Apr. 15.

Drainage—Corinth, Miss.—The Alcorn County Drainage Commissioners plan to issue $12,000 in bonds for work in the Chambers Creek Drainage District. Ely B. Mitchell, Corinth, is Attorney.

Levee Work—Vicksburg, Miss.—Bids will be received by Commissioner of the Third Mississippi River District, P. O. Box 404, Vicksburg, Miss., until 11 a.m., June 5, for constructing about 660,000 cu.yd. of levee enlargement.

Drainage—Darrow, La.—The following are the bids received for drainage in the Bayou Conway Drainage District: Picard, Buckmaster & Weil, New Orleans, 6.49c. per cu.yd., A. J. Brumbaugh, 7.5c.; D. B. Gore & Co., 7.73c.; R. H. & G. A. McWilliams, 7.9c. Noted Apr. 15.

Drainage—Gueydan, La.—The Guedan Drainage Board plans to drain and reclaim 85,000 acres of land, at an approximate cost of $150,000.

Dredging—Lake Charles, La.—The City Commission has passed a resolution for dredging Pithon Coulee, North Ryan St. Coulee and Griffith Coulee.

Boilers—New Orleans, La.—See item under "Light, Heat and Power."

★Cranes and Elevator—New Orleans, La.—(Official)—Bids will be received by the Board of Commissioners, Port of New Orleans, New Orleans Court Bldg., until 8 p.m., June 9, for furnishing and erecting 15 or more electric traveling cranes, two transfer cranes and one crane transfer and elevator for the cotton warehouses and terminal. Ernest M. Loeb is Pres.

Dredging—Trenton, Tenn.—Bids will be received until June 9 by the Directors of Drainage District No. 2 for dredging about 1,158,368 cu.yd. of earth. W. W. Powers is Chn.

Fire Station—Columbus, Ohio—The Finance Committee of the City Council has approved the plan to build a fire station at Fifth and Cleveland Ave. at a cost of $52,000.

Drain—Hastings, Mich.—According to press reports, the Commissioners of Barry County will soon begin the construction of Gun River Drain. The drain will be 10 miles long, 30 ft. wide and from 6 to 10 ft. deep.

Excavation and Supplies—Madison, Wis.—W. G. Kirchoffer, 22 North Carroll St., is in the market for a cableway, orange-peel bucket and hoisting engine, new or used. He also would like to correspond with contractors wishing to bid on work involving 40,000 to 80,000 yd. of excavation.

Docks and Dredging—Milwaukee, Wis.—The City Council has decided to issue bonds for $150,000 for dredging and for the construction of docks.

Drainage—Thiensville, Wis.—Construction work will start in June on about six miles of drainage ditches in Ozaukee and Sheboygan Counties for the Belgium-Holland Drainage District. The estimated cost is $18,000. C. F. Levins, West Bend, Wis., is Comr.

Drainage—Clarion, Iowa—Bids will be received by F. E. Osier, County Audr., until 2 p.m. June 1, for the construction of Drain No. 101.

Ditch—Webster City, Iowa—Bids will be received by A. J. Paterson, County Audr., until 1:30 p.m., June 7, for constructing Ditch No. 171.

✚Ditch—St. James, Minn.—It is reported that the contract for constructing Judicial Ditch No. 9 has been awarded to G. CHRISTENSEN, Clear Lake, Iowa, at $31,650. Noted Apr. 22.

✚Canal—St. Paul, Minn.—The contract for deepening the Roseau River has been awarded by the State Drainage Board to the CENTRAL DREDGING CO., Cleveland, Ohio. Noted Feb. 18.

Park Improvements—Lincoln, Neb.—The city plans to issue $50,000 in bonds for park improvements. Adna Dobson is City Engr.

Fire Alarm System—Omaha, Neb.—The city contemplates the installation of a fire alarm system at an estimated cost of $75,000.

Improvements to Fire Department—Temple, Tex.—The citizens will vote June 1 on the question of issuing $40,000 in bonds for improvements to the fire department.

✚Levee—Waxahachie, Tex.—The contract for constructing levee on Chambers Creek has been awarded by T. H. Harbin to L. M. HORTON, Ennis, Tex. Noted May 6.

Dike—Cathlamet, Wash.—According to press reports the citizens on Puget Island will soon vote on a bond issue for the purpose of building 15 miles of dikes around the Island, The estimated cost is $150,000. G. A. Kyle, Spaulding Bldg., Portland, Ore., is Engr.

Drainage—Granger Wash.—The County Commissioners, North Yakima, have organized Drainage District No. 27 and plan to drain about 1300 acres of land at a cost of $18,181.

Drainage—North Yakima, Wash.—Bids will be received until 2 p.m., May 28, by C. E. Barrett, County Audr., for installing about 11,800 ft. of clay or concrete pipe in Drainage District No. 24.

Cement—Seattle, Wash.—Bids will be received by the County Commissioners until June 7 for furnishing about 200,000 bbl. of portland cement, delivery to be made as required.

✚Repairs to Dry Dock—Portland, Ore.—The contract for repairs and changes to the pontoons on the public dry dock at St. John is reported to have been awarded to J. R. McALLISTER & SON, Lewis Bldg., at $33,950 and $35,000. Other bidders were: Columbia River Ship Co., Portland, $34,890, $36,490; St. Helens Ship Building Co., St. Helens, Ore., $37,200, $38,700; Anderson & Crowe, Portland, $33,600, $35,100; Portland Ship Yards, Portland, $36,900, $38,900. Approximately 760,000 ft. of lumber will be required in the work. Noted May 20.

Embankment—Portland, Ore.—The following bids were received by the Interstate Bridge Commission, Multnomah County Court House, for embankment work and for incidental structures in connection with the new Interstate Bridge between Portland, Ore., and Vancouver, Wash., across the Columbia River: Standard American Dredging Co., Oakland, Calif., $112,988; Tacoma Dredging Co., Tacoma, $137,390; Pacific Bridge Co., Portland, $139,500. Noted Apr. 22.

Drainage—Salem, Ore.—The County Court has approved of the organization of the G. A. Miller Drainage District No. 1. In this district it is planned to reclaim about 200 acres of land. A ditch, five miles long, will be constructed at a cost of $10,000.

Pier—Long Beach, Calif.—The Board of Public Works will soon receive bids for the construction of the Belmont Pier. There is $48,000 available for the completion of the work. John Schultz is Consult. Engr.

Fire Apparatus—Turlock, Calif.—This city plans to spend about $15,000 for fire apparatus.

Levee Work—Washington, Calif.—The citizens have voted to issue $10,000 in bonds for raising and widening the levees.

Crane—Halifax, N. S.—Bids will be received by the Department of Naval Service, Ottawa, until July 1, for the manufacture and erection at the Halifax dockyard of a 30-ton steam wharf crane of the derricking jib type. Specifications may be had at office of the Consulting Naval Engineer, Ottawa.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

✚Ashburnham, Mass. — H. WALES LINES CO., Meriden, Conn., has been awarded the contract for a three-story, 103x120-ft., brick and steel dormintory at Cushing Academy. Frank Irving Cooper Corporation, 33 Cornhill, Boston, Mass., is Arch. Noted May 6.

✚Boston, Mass.—(Official)—JOHN F. GRIFFIN CO., 17 Milk St., has been awarded the contract for the construction of the St. Ambrose Church. W. H. McGinty, 101 Tremont St., is Arch. Noted May 20.

✚Worcester, Mass.—(Official)—George C. Halcott, Supt. of Pub. Bldgs., Room 35, City Hall, has awarded the contract for the construction of a three-story addition to the Cambridge St. School No. 2, to J. W. BISHOP CO., Foster St. Other bidders were: James Miles & Son Co., $41,610; Ernest Whitehead, $42,020; E. D. Ward, $42,573; L. Rocheford & Son, $42,970; Eli Belisle, $43,295. Noted Apr. 29.

✚Worcester, Mass.—(Official)—George C. Halcott, Supt. of Pub. Bldgs., Room 35, City Hall, has awarded the contract for the construction of an addition to the North High School to ISREAL GOLDMAN, 34 Jefferson St., at $199,985. Noted Apr. 22.

✚New London, Conn.—(Official)—J. A. DOLAN & CO., 83 State St., has been awarded the heating and plumbing contract for the new almshouse, at $43,307. Other bidders were: George S. Gadbois, $51,000. H. R. Douglas, Inc., $51,376. James Sweeney, 140 State St., is Arch.

Binghamton, N. Y.—Plans prepared by S. O. Lacey, 415 Phelps Bldg., for the construction of two three-story schools at Binghamton, have been approved by the Board of Education. The estimated cost is $100,000. Noted Sept. 10.

New York, N. Y.—(Borough of Bronx)—Plans have been prepared by Sommerfield & Steckler, Arch., for the construction of a two-story synagogue at Stebbins Ave. near 163d St. for the Sinai Congregation. Estimated cost, $75,000. William Daub, is Pres.

✚New York, N. Y.—(Borough of Bronx)—(Official)—The contract for the construction of a one-story, 92x145-ft. church on 138th St. and Cypress Ave. for the St. Luke's Church has been awarded to McDERMOTT & HANIGAN, 103 Park Ave., New York. Estimated cost, $100,000. Noted May 13.

✚New York, N. Y.—(Borough of Bronx)—(Official)—The contract for the construction of two apartment houses on Woodycrest Ave. near 164th St. for the Woodycrest Bldg. Corporation, has been awarded to McDERMOTT & HANIGAN, 103 Park Ave., New York. Estimated cost, $90,000.

New York, N. Y.—(Borough of Brooklyn)—Plans are being prepared by C. B. J. Snyder, Supt. of School Bldgs., 500 Park Ave., New York, for the construction of an addition to Public School No. 89 at East 31st St. and Newkirk Ave. The estimated cost is $50,000.

New York, N. Y.—(Borough of Brooklyn)—Bids will be received about May 28 by Seymour & Schonewald, Arch., Grand Central Terminal Bldg., New York, for the construction of a six-story, 50x125-ft. department store at Fulton and Smith St. for Balch, Price & Co., 376 Fulton St. Estimated cost, $75,000.

✚New York, N. Y.—(Borough of Brooklyn)—P. J. CARLIN CONSTRUCTION CO., 1123 Broadway, New York, has been awarded the contract for the construction of a building on Classon Ave. between Madison St. and Putnam Ave. for the Church of the Nativity. The estimated cost is $150,000. Noted Apr. 8.

New York, N. Y.—(Borough of Brooklyn)—Bids will be received about June 1 by John P. Benson, Arch., 331 Madison Ave., New York, for the construction of a two-story theater at Flatbush Ave. and Courtelyou Rd. for Picker & Bennett. Estimated cost, $200,000.

✚New York, N. Y.—(Borough of Manhattan)—The contract for the construction of a 100x225-ft. church at Lexington Ave. and 66th St. for the Church of St. Vincent de Ferrer has been awarded to JOHN T. BRADY & CO., 103 Park Ave., New York. Estimated cost, $650,000. Noted Apr. 22.

New York, N. Y.—(Borough of Manhattan)—Neville & Bagge, Arch., 105 West 40th St., has prepared plans for the construction of a 12-story apartment house at 321 West End Ave. and for the Charmion Construction Co., 2309 Broadway. The estimated cost is $500,000.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Charles A. Rich and F. Mathesius, Jr., Assoc. Archs., 320 Fifth Ave., for the construction of a five-story, 200x200-ft. students' building at 119th St. between Broadway and Claremont Ave. for Barnard College.

New York, N. Y.—(Borough of Manhattan)—Bids will be received about June 12 by Harry Allen Jacobs, Arch., 320 Fifth Ave., for the construction of a five-story clubhouse at 106 West 48th St. for the Friars Club, 107 West 45th St. George M. Cohan is Pres. The estimated cost is $130,000.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids have been received for completing the abandoned contract of the Tower Construction Co., for the alterations to the powerhouse and ambulance station of the Harlem Hospital, Lenox Ave., 136th and 137th St., as follows: William Werner, 657 Vanderbilt Ave., Brooklyn, $45,626; Joseph Kresse Co., 1133 Broadway, New York, $46,900; Louis Weschler, $47,185; Andrews Building Co., Inc., Times Bldg., New York, $46,844; William H. Egan, Lexington Ave. and 125th St., New York, $46,466; J. F. Brennen, $46,850. Noted May 13.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by Younger & Wagner, Inc., Arch., for the construction of a six-story apartment house at Riverside Drive and 161st St. for the Melvin Construction Co., Inc. The estimated cost is $750,000.

✚New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for the foundation work on the building at Fifth Ave. and 31st St. for the 302 Fifth Ave. Co., 3785 Broadway, has been awarded to the UNDERPINNING & FOUNDATION CO., 290 Broadway, New York. Noted Apr. 22.

+New York, N. Y.—(Borough of Manhattan)—(Official)—CLARK & APPLEMAN, 419 East 16th St., New York, has been awarded the contract for the construction of additions and alterations to the St. Cyrillus and Methodius Church, at 552 West 50th St. Ambrose Sirca, is Pastor and Frederick J. Schwartz is Arch.

New York, N. Y.—(Borough of Queens)—Bids will be received about June 1 by A. Wallace McCrea & Co., Arch., 23 East 15th St., New York, for the construction of a one-story, 25x100-ft. bank building for the Bank of Long Island. The estimated cost is $50,000. Noted Apr. 22 and May 13.

Syracuse, N. Y.—Bids will be received about June 1 for the construction of a two-story reinforced-concrete school. The estimated cost is $200,000. James A. Randall, 705 S. A. & K. Bldg., is Arch. and Thomas Wooley, City Hall, is City Engr.

Syracuse, N. Y.—Bids will be received until 11 p.m., June 1, by Albert E. Larkin, Pres., Bd. of Education, for the construction of a one-story gymnasium and swimming pool in the rear of the vocational school on Seneca St. near Tully St. Estimated cost, $50,000. Merrick & Randall, 705 S. A. & K. Bldg., is Arch.

Troy, N. Y.—Lawlor & Haase, Arch., 59 Wall St., New York, is preparing plans for the construction of a dining hall and six dormitories at 15th Ave., Ave. D and the Campus, for the Rensselaer Polytechnic Institute. The estimated cost is $200,000. Palmer C. Ricketts is Pres. Bids will be received about July 13.

White Plains, N. Y.--Plans are being prepared by Alfred Hopkins, Arch., 101 Park Ave., New York, for the construction of a county jail. The estimated cost is $350,000. Contracts will be awarded about Sept. 1.

Bayonne, N. J.—Bids will be received until 10 a.m., June 4, by the Board of Directors of the Hudson County Parental School, at the County Collector's Office, Court House, Jersey City, for the construction of the county parental school. Noted Mar. 18.

+Cliffside Park, N. J.—(Cliffside post office)—The Board of Education has awarded the contract for the construction of a high school to the DE KIMPE CONSTRUCTION CO., West Hoboken, at $61,455. Noted Mar. 11, Apr. 22 and May 20.

Glen Ridge, N. J.—The Borough Council plans to construct a municipal building at Bloomfield and Ridgewood Ave. Estimated cost, $60,000.

+Harrison, N. J.—The contract for the construction of a school at Fourth and Jersey St. for the Church of the Holy Cross, has been awarded to McEVOY BROS., Harrison. Estimated cost $90,000. Noted Mar. 18 and Apr. 15.

+Hoboken, N. J.—The contract for the alterations to the Fellows Home at 412 Washington St. for Max Hurwitz, 316 Washington St. has been awarded to the GABLER CONSTRUCTION CO., 339 West 18th St., New York, N. Y. Estimated cost, $70,000.

+Jersey City, N. J.—The contract for the construction of an addition to St. Joseph's Home for Blind on Pavonia Ave. has been awarded to M. T. CONNOLLY CONTRACTING CO., 238 17th St., Jersey City, at $134,697. Noted Mar. 11.

Jersey City, N. J.—Bids will be received about May 28 by John T. Rowland, Jr., Arch., 98 Sip Ave., for the construction of a four-story building at 138 Lembeck Ave. for St. Ann's Home for the Aged. The estimated cost is $75,000. Noted May 20.

+Jersey City, N. J.—The contract for the construction of a school on Third St. for St. Mary's Church has been awarded to JOHN J. EGAN, at $107,700. Noted Apr. 22.

+Millville, N. J.—The contract for the construction of a two-story, 120x160-ft. high school has been awarded to the BERRY GOODWIN CO., Philadelphia, Penn. Noted July 30, Sept. 10, 1914; Apr. 1, 15 and 22.

Morristown, N. J.—(Official)—Bids will be received about Aug. 1 by Guilbert & Betelle, Arch., 665 Broad St., Newark, for the construction of a high school. The estimated cost is $140,000. Noted Mar. 4 and May 20.

+Northfield, N. J.—JOHN MATHIS & SONS, Atlantic City, has been awarded the contract for the construction of a tuberculosis hospital. The estimated cost is $40,000.

Passaic, N. J.—Alexander M. Taylor and Harry M. Hecht will construct a theater, having a seating capacity of 4000, at Lexington and Main Ave. The estimated cost is $250,000.

Paterson, N. J.—The Church of the Covenant contemplates the construction of a church at Broadway and 27th St. Estimated cost, $50,000. Peter Quackenbush, 190 Main St., is Pres. of Consistory.

Princeton, N. J.—Bids are being received by the Building Committee of Princeton University for the construction of the Commons Dining Halls. The estimated cost is $450,000. Day & Klauber, Philadelphia, Penn., is Arch. Noted Apr. 22.

Rutherford, N. J.—The Board of Education contemplates the construction of a two-story high school on Passaic Ave. Estimated cost, $115,000. W. W. Rich is Pres., Bd. of Education.

Allentown, Penn.—See item under "Miscellaneous."

Greensburg, Penn.—A hospital, to be known as the Seton Hill Hospital and managed by the Sisters of Charity, will be constructed at Greensburg. The estimated cost is $250,000. Thomas H. Strickler, Pittsburgh, is interested.

Lehighton, Penn.—The citizens voted in favor of issuing $100,000 in bonds for the construction of a high school. Noted Apr. 8.

Mahonington, Penn.—Bids will be received until June 8 by the Secretary of the Board of Education for the construction of a school. The estimated cost is $70,000. H. M. Wirsing is Arch.

Philadelphia, Penn.—Plans are being prepared by John J. Kennedy, Arch., Wilmington, Del., for the construction of a school for the Church of Our Mother of Consolation at Chestnut Hill. The estimated cost is $80,000.

Philadelphia, Penn.—Plans are being prepared for the construction of an eight-story, 37x144-ft. building at 831-835 Cherry St. for William Linker, Heed Bldg.

Philadelphia, Penn.—The Philadelphia Life Insurance Co. has purchased a site at 111 North Broad St. The company plans to construct a five-story office building.

+Scranton, Penn.—F. D. HYDE, 90 West St., New York, N. Y., has been awarded the contract for the excavation work on an eight-story building for the Scranton Life Insurance Co., Connell Bldg. The entire building will cost about $400,000. Noted Feb. 11 and Mar. 18.

+Wilkinsburg, Penn.—(Official)—The contract for the construction of a passenger station at Hay St. and Ross Ave. for the Pennsylvania R.R. has been awarded to IRWIN & LEIGHTON, 126 North 12th St., Philadelphia. Alex C. Shand, Philadelphia, is Ch. Engr. The estimated cost is $125,000. Noted May 20.

Baltimore, Md.—(Official)—The Council has decided not to appropriate $125,000 for the construction of a school in the 14th Ward. Henry R. Davis is Supervisor. Noted May 20.

Baltimore, Md.—The Board of Trustees of the Union Protestant Infirmary, Division St., plans to construct hospital buildings on Charles St., Homewood. The estimated cost is between $300,000 and $400,000. J. M. T. Finney and J. C. Bloodgood are interested.

+Fairmont, W. Va.—The contract for the construction of a three-story building at the State Normal School has been awarded to J. L. CROUSE, Greensboro, N. C. Estimated cost, $125,000. Noted Feb. 25 and May 13.

Wheeling, W. Va.—Plans have been prepared by Fred Faris, Arch., for the construction of the Scottish Rite Cathedral. The estimated cost is $225,000.

+Hartsville, S. C.—The contract for the construction of a three-story building for the Coker College has been awarded to J. M. LAWTON, at about $100,000. Noted Apr. 29.

Rockhill, S. C.—Contracts will soon be awarded for the construction of a gymnasium for Winthrop College. The estimated cost is $60,000. D. B. Johnson is Pres.

Alliance, Ohio—Plans have been prepared by W. W. Matchett, Arch., 537 East Main St., for the construction of a three-story theater and store building for Parthe Bros., East Main St. Estimated cost, $50,000. Noted Apr. 1.

Chillicothe, Ohio—Bids will be received until June 3 by the Board of Education for the construction of a school with a gymnasium. The estimated cost is $60,000. Ritter & Bates, Portsmouth, is Arch.

Cincinnati, Ohio—The Cincinnati & Suburban Bell Telephone Co. plans the construction of an exchange buildng at Woodburn Ave. and Locust St. Estimated cost, $40,000.

Cincinnati, Ohio—Garber & Woodward, Arch., Union Central Bldg., is preparing plans for the construction of a temple at McMillan and Grandview St. for the New Thought Congregation of Cincinnati.

Cleveland, Ohio—Bids will be received until noon, June 14, by the Clerk of the Board of Education, for the construction of an addition to the architect's office, School Headquarters, Rockwell Ave. and East Sixth St., and for alterations to the Central High School, East 55th St. near Cedar Ave. W. R. McCormack is Arch., Bd. of Education, and Frank G. Hogen is Dir. of Schools. Noted Mar. 11 and May 6.

Ironton, Ohio—The Masons plan to construct a four- or six-story Masonic Temple to replace the one destroyed by fire. Estimated cost, $100,000. Fred J. Horschel is in charge of the work.

Lakewood, Ohio—The Lakewood Congregational Church plans to construct a church to cost about $50,000. Clayton W. Tyler, Mayor, is interested. Noted Aug. 13.

Marion, Ohio—J. Lewis Ellis, Arch., is preparing plans for the construction of a three-story fireproof building at Orchard and West Center St. for the Independent Order of Odd Fellows. Estimated cost, $50,000.

New Paris, Ohio—F. L. Packard, Arch., New Hayden Bldg., Columbus, is preparing plans for the construction of a school at New Paris. Estimated cost, $50,000.

Toledo, Ohio—Bids will be received until noon, June 14, by the Clerk of the Board of Education, for the construction of additions and alterations to the Chase School at Chase and Bassett St. and to the Wayne School, at Wayne and Ralph St. Edwin M. Gee is Arch., Bd. of Education.

Woodsfield, Ohio—Plans have been prepared by Howard & Merriman, Arch., 8 East Broad St., Columbus, for the construction of a school. Estimated cost, $50,000. Noted May 13.

Zanesville, Ohio—(Official)—At an election held May 11 the citizens defeated the question of issuing $300,000 in bonds for the construction of a city hall and market. F. H. Bolin is Audr. Noted Dec. 24 and Apr. 22.

+East Chicago, Ind.—The Board of Education has awarded the contract for the construction of the McKinley School to JOHN W. REID, Hammond, at $52,194. J. T. Hutton & Son, 314 Hammond Bldg., Hammond, is Arch.

Franklin, Ind.—(Official)—The date for receiving bids for the construction of a State Masonic Home for the Grand Masonic Lodge of Indiana has been extended to about June 15. Herbert W. Foltz, Indiana Pythian Bldg., Indianapolis, is Arch. Noted Sept. 3 and May 6.

+Indianapolis, Ind.—The contract for the construction of an apartment house on Meridian St. for the Balmoral Court Co. has been awarded to the BUILDERS REAL ESTATE CO., Indianapolis. Estimated cost, $100,000.

Detroit, Mich.—The Great Lakes Realty & Building Co. plans to construct a 20-story office building at Michigan Ave. and Washington Blvd. John R. Nostrand is Secy.

Detroit, Mich.—The Gray Estate Co. plans to construct a 19-story building on the Washington Blvd. Only two stories will be constructed at present which will cost about $75,000.

Marquette, Mich.—An election will be held June 1 to vote on the question of issuing $140,000 in bonds, the proceeds of which will be used for the construction of a high school.

Muskegon, Mich.—(Official)—The construction of a high school, estimated to cost $200,000, has been postponed. It will probably be built in about a year. Robinson & Campan, 449 Houseman Bldg., Grand Rapids, is Arch. Noted May 13.

Chicago, Ill.—James Coupland, 7158 Luella Ave., Chicago, plans to construct an apartment house at 46th St., between Greenwood and Woodlawn Ave. The estimated cost is $250,000.

Chicago, Ill.—Bids will be received about June 1 by Ralph C. Harris, Arch., Stock Exchange Bldg., for the construction of a two-story theater, store and office building at 5746-52 Prairie Ave. for the Prairie Amusement Co. The estimated cost is $70,000. Noted Sept. 17 and May 13.

Chicago, Ill.—The International Tailoring Co., 212 South Market St., plans to construct a ten-story, fireproof building at Jackson Blvd. and Peoria St. The cost is about $250,000.

Chicago, Ill.—Joseph M. Browarsky, 30 North La Salle St., has purchased a site at 69th St. and Stony Island Ave. upon which will be constructed a theater, store and apartment building. The estimated cost is $120,000.

Peoria, Ill. The Peoria Society of Allied Arts contemplates the construction of a two-story art gallery and auditorium. The estimated cost is between $150,000 and $200,000. Warren W. Day, Arch., 527 Main St., has prepared the plans.

Rock Island, Ill.—(Official)—Bids will be received until June 3 by H. B. Hubbard, County Clk., Rock Island, for the construction of the Rock Island County Jail. The estimated cost is $75,000. C. D. McLane, 301 Robinson Bldg., is Arch. Noted Mar. 4, Apr. 29 and May 13.

Milwaukee, Wis.—An ordinance providing for an issue of $720,000 in bonds has been passed by the City Council. The proceeds will be used for school improvements.

Milwaukee, Wis.—The Milwaukee Athletic Club plans to construct a clubhouse, estimated to cost $500,000. Willis E. Keats is Secy.

Milwaukee, Wis.—The Congregation of Temple Emanu-El plans the construction of a temple at Hackett Ave. near Belleview Pl. Estimated cost, $100,000.

Milwaukee, Wis.—R. A. Messmer & Bro., Arch., 1004 Majestic Bldg., is preparing plans for the construction of a three-story building at 1075 Third St. for the Moritz Arndt Lodge, I. O. O. F. Estimated cost, $45,000.

Stevens Point, Wis.—(Official)—Bids will be received about July 19 for the construction of a three-story dormitory for women at the Stevens Point Normal School. Van Ryn & De Gelleke, 726 Caswell Blk., Milwaukee, is Arch. Noted Jan. 14 and May 13.

Mason City, Iowa—An election will be held June 5 to vote on the question of issuing $300,000 in bonds, the proceeds of which will be used for the construction of a high school.

Primghar, Iowa—(Official)—Bids will be received until June 15 by J. B. Stamp, County Audr., for the construction of a courthouse for O'Brien County. The estimated cost is $150,000. Noted Apr. 1.

Crosby, Minn.—Edward F. Broomhall, Arch., 710 Alworth Bldg., is preparing plans for the construction of a high school which will be built in two units. The estmated cost of the first unit is $100,000. Noted Mar. 11 and Apr. 22.

Minneapolis, Minn.—Bids will be received about June 1 by the Board of Education for the construction of a four-story addition to the South High School. The estimated cost is $250,000. Stebbins & Haxby, 445 Auditorium Bldg., is Arch.

Grand Forks, N. D.—The Y. M. C. A. contemplates the construction of an addition to its building. Estimated cost, $40,000.

Butte, Mont.—The County Commissioners have decided to hold an election to vote on the question of issuing $85,000 in bonds. The proceeds will be used for improving and completing the county jail.

St. Joseph, Mo.—Eckel & Aldrich, Arch., Forsee-Corby Bldg., is preparing plans for the construction of a grade school, to cost about $60,000.

Warrensburg, Mo.—Bids will soon be received by Smith, Rea & Lovitt, Arch., 602 Finance Bldg., Kansas City, for the construction of a building at the State Normal School. The estimated cost is $50,000. The buildings at the State Normal School which were destroyed by fire will be rebuilt. The legislature has appropriated $300,000 for the purpose.

Austin, Tex.—The Legislature has passed a bill appropriating $300,000 to be used for the construction of a State School for the Blind.

Dallas, Tex.—Guidera & Bell, 1608 Main St., plans to construct a four-story hotel at Houston and Jackson St. The estimated cost is $50,000.

Ft. Worth, Tex.—The Knights of Pythias of Texas plan the construction of a temple at Ft. Worth. Estimated cost, $300,000. James Stephens is Vice-Pres. and J. A. Oldfather, Cleburne, is Secy.

San Angelo, Tex.—Bids will soon be received by Ross & Cason, Arch., Waco, for the construction of a three-story high school. The estimated cost is $65,000. Noted Mar. 11, Apr. 8 and 22.

San Antonio, Tex.—The City Council has granted a franchise to the San Antonio Belt & Terminal Ry Co., a subsidiary of the Missouri, Kansas & Texas Ry. Co., granting permission to construct terminals, stations and cross the streets of San Antonio. The company will expend about $1,200,000 for the construction of terminals.

Perry, Okla.—(Official)—Bids will be received until June 1 by W. T. Faris, County Clk., for the construction of a courthouse, to cost about $100,000. Noted Apr. 29.

Colorado Springs, Colo.—Plans have been prepared by MacLaren & Thomas, Arch., for the construction of a hospital at the Modern Woodmen Sanitarium. Estimated cost, $50,000. J. A. Rutledge is Supt. Noted Feb. 25 and Apr. 22.

Denver, Colo.—(Official)—At an election held May 18 the citizens defeated the question of issuing bonds for the construction of a municipal building. Walter L. Rice, City Hall, is Ch. of Bldg. Dept. Noted Apr. 8 and 29.

Salt Lake City, Utah—Samuel Newhouse and associates plan to construct a 28-story building near the Newhouse Hotel. The estimated cost is $1,500,000. Samuel Untermyer, 37 Wall St., New York, N. Y., is interested.

Tucson, Ariz.—Plans have been prepared by Trost & Trost, Arch., Mills Bldg., El Paso, Tex., for the construction of a two-story Scottish Rite Cathedral. The estimated cost is $100,000.

Bellingham, Wash.—An election will be held June 5 to vote on the question of issuing $95,000 in bonds. The proceeds will be used for the construction of an addition to the high school and other school improvements.

Seattle, Wash.—(Official)—Bids will be received about Aug. 1 by the Board of Regents, University of Washington, for the construction of the first unit of a two-story building. Estimated cost, $150,000. Bebb & Gould, Denny Bldg., is Arch. Noted May 6.

Walla Walla, Wash.—Bids were received by the County Commissioners of Walla Walla County for the construction of a courthouse. M. J. Hurson Co., Globe Bldg., Seattle, was the lowest bidder, using Boise stone, at $137,750, and using terra cotta at $132,750. Other bids using Boise stone were: J. B. Sweatt & Co., Spokane, $139,500; Finne & Gjarde, Seattle, $141,940; J. J. Lohrenz, Spokane, $142,265; John T. Huetter, Spokane, $143,850; T. H. Tillman & Co., Portland, Ore., $143,960; Boyajohn-Arnold Co., Portland, Ore., $144,000; Sound Construction & Engineering Co., Seattle, $144,574; C. L. Creelman, Tacoma, $144,912; Hans Pederson, Seattle, $145,000; S. G. Morin, Spokane, $146,989; J. A. McLean, Walla Walla, $147,515; F. E. Peterson, Walla Walla, $148,023; Litherland & Abrey, Portland, Ore., $148,900; Olson & Johnson, Missoula, Mont., $149,695; McRae Bros., Seattle, $149,700; Pearson Construction Co., Seattle, $149,900; Sylliaasen & Sando, Seattle, $149,997; Alloway & George, Spokane, $150,280; Bailey & Lambert, Walla Walla, $150,490; Butler Contracting Co., Seattle, $150,500; Beers Building Co., Portland, Ore., $151,700; Pacific States Construction Co., Seattle, $159,000; E. J. Rounds Construction Co., Seattle, $159,000; Booker-Keihl & Whipple, Seattle, $159,832. The three lowest bidders using the following materials, Tenino stone (a), Wilkeson sandstone (b), Indiana sandstone (c), and terra cotta (d), were: M. J. Hurson Co., Globe Bldg., Seattle, (a) $136,750, (b) $152,750, (c) $143,750, (d) $132,750; J. B. Sweatt & Co., Spokane, (a) $134,500, (b) $149,900, (c) $141,800, (d) $132,800; Finne & Gjarde, Seattle, (a) $137,408, (b) $150,745, (c) $144,231, (d) $144,231. Noted Jan. 7 and 28, Mar. 11 and Apr. 15.

Grants Pass, Ore.—All bids received May 5 for the construction of a three-story courthouse have been rejected by the County Commissioners. New bids will be received in the fall. John Almeter, at $62,253, submitted the lowest bid. Noted Mar. 4 and 25, and Apr. 29.

Portland, Ore.—Bids will soon be received by Lawrence & Holford, Arch., 1021 Chamber of Commerce Bldg., for the construction of a 2½-story, 150x200-ft. clubhouse for the Irvington Tennis Club, East 21st and Thompson St. Noted Apr. 22.

Chico, Calif.—M. Schott plans to construct a concrete building at 710 Main St. which will cost about $50,000.

Los Angeles, Calif.—Parkinson & Bergstrum, Arch., Security Bldg., is preparing plans for the construction of a bank and office building on Spring St. for the Security National Bank, Fourth St. and Broadway.

✚Norwalk, Calif.—W. F. McClure, State Engr., 625 Forum Bldg., Sacramento, has awarded the contract for the construction of a group of buildings for the Norwalk State Hospital for the Insane, to E. L. BERGEN & SON, San Francisco, at $114,872. Noted July 23, Aug. 6, Apr. 8 and 22 and May 20.

Owensmouth, Calif.—Bids will soon be received for the construction of a two-story high school. The estimated cost is $75,000. Dennis & Hewitt, 618 Fay Bldg., Los Angeles, is Arch. Noted Nov. 26, under Los Angeles, Calif., Dec. 24 and Mar. 11.

✚San Fernando, Calif.—JOHN MULDER, 143 Rose St., Los Angeles, at $51,710, has been awarded the contract for the construction of an auditorium and mechanical arts building at the San Fernando Union High School. GEORGE C. CONDON, Wesley Roberts Bldg., Los Angeles, at $42,800, has been awarded the contract for the science building in the same group of high school buildings. John C. Austin, Baker-Detwiler Bldg., Los Angeles, is Arch. Noted Oct. 29, Mar. 11 and Apr. 22.

✚San Francisco, Calif.—The PACIFIC ROLLING MILLS CO., at $85,433, has been awarded the contract for the steel frame of the public library. The estimated cost of the building complete is $1,000,000. Noted Oct. 1.

San Francisco, Calif.—Preliminary plans have been prepared by Reid Bros., Arch., California Pacific Bldg., for the construction of an eight- or ten-story Class "A" store and office building for Hulett C. Merritt, 702 South Spring St., Los Angeles. The cost is estimated at $500,000.

San Francisco, Calif.—The Metropolis Investment Co. will construct a five-story apartment house on Ellis near Leavenworth St. Estimated cost, $100,000. O. R. Thayer is Arch.

San Francisco, Calif.—The Board of Public Works plans to construct a Juvenile Detention Home on Otis St. The estimated cost is $150,000. Louis C. Mullyardt, Chronicle Bldg., is Arch.

✚San Jose, Calif.—The contract for the construction of a three-story Y. W. C. A. building has been awarded to MORRISON BROS., at $66,030. Julia Morgan, San Francisco, is Arch. Noted May 20.

Whittier, Calif.—The State Legislature is considering a bill appropriating $75,000 which will be used for the construction of buildings at the State Reform School at Whittier.

The Jeffrey Mfg. Co., Columbus, Ohio, announces the removal of its New York branch to 50 Dey St., near the Hudson Terminal. The company will carry in New York a stock of power transmission machinery, including shafting, hangers, pulleys, collars, couplings, elevating and conveying appliances, including sprocket wheels, steel elevator buckets, elevator boots, and screw conveyors. George H. Mueller, Asst. Sales Mgr. of the company, is in charge of the New York office.

The Contractors' Service Co., 50 Church St., New York, N. Y., is in the market for 45 flat cars, 25- to 30-tons capacity, with steel underframes, not less than 32 ft. long. Eastern delivery is preferred.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

A STEADY VOLUME OF BUSINESS

The ability of business to withstand the severe shocks which occurred during May, indicates clearly the firm foundation which underlies the general structure. Although the newspapers in the United States are calling attention to the dire possibilities that might result from international complications, there has been no postponement of business already under way—no engineering contracts, as far as can be learned, have been postponed for this reason—and while there was a temporary halt in the volume of new business, this has almost all disappeared and increased activity is making steady headway. As far as the general business situation is concerned, it was better on June 1 than on May 1. More men are at work, more projects are planned, and there is more confidence that business this year will show a steady gain. Contracts for certain commodities have been made for delivery well into 1916, and the business world is taking a long look ahead.

Foreign orders make up an unusually large proportion of the business taken by those in the metal trades. First of importance come the orders for necessary war materials, and more than fifty manufacturers in the United States are turning out shrapnel alone. In addition to this, many shops are rushed to capacity, making tools for the manufacture of such materials, to say nothing of the chemical industry and the great stimulation to the metal trade. That so great an amount of business could be placed was not believed by those familiar with the amount of material usually required by armies. Aside from the orders calling for strict munitions of war, vast quantities of barbed wire and materials which will be used by civilian population, but which cannot be made in the countries now at war, are required. All these are swelling the foreign business of the United States to figures hitherto scarcely thought possible.

Russia has been an extremely large purchaser of railway equipment, including rails, and it is probable that more rolling stock and motive power will have to be purchased in this country, as heretofore most of the material of this character came from Germany; Russian manufacturing facilities, even in times of peace, are totally inadequate to care for the demand.

In the iron trade, business has increased steadily, that is, the operation at the mills, and the leading manufacturer of iron and steel products, whose operations perhaps are on a slightly smaller scale than those of other steel manufacturers, is running his plant at the rate of about 75% of capacity. Prices have remained practically stationary, although an advance in galvanized sheets is noted, this being due purely to the increase in the cost of spelter. Bessemer iron moved up 15c. a ton in the last week in the month, and seems to be in much better demand. The speculative interests which purchased a large tonnage of Southern foundry iron have not been able to dispose of it at a profit. Activity in the line of large bars and forging shapes is especially pronounced. There is likewise an increase in the demand for steel plates for shipbuilding purposes. Structural steel work is more active, the fabricating shops of the country operating at about 62% of capacity, compared with 32% in the dullest time last year. The rapid progress being made on the steel work in New York City for the extension of the subways and elevated lines is responsible for considerable of this activity, but a great many railroads are replacing bridges as rapidly as their funds will allow. A good deal of the work, too, comes from county commissioners for small highway bridges.

Rapid advances in the prices of metals have carried quotations to levels hitherto scarcely believed possible. The most spectacular advance has been in spelter. This metal, which was selling at 14½ to 15c. a month ago, and 7c. a year ago, is now quoted at 21c., and there is scarcely any to be had. For the first time in the history of the metal trade, the price of spelter was higher than that of copper. This advance caused corresponding increases in the price of brass and brass products; lead has advanced $6 per ton; antimony is practically unobtainable. The unusual prices have brought about great activity in zinc smelting works, and plants long disused are being pressed into service.

Never before in the history of the United States has the financial situation been so intrinsically sound. The new banking system has been in operation long enough to prove its worth; a stock of gold has been accumulated far beyond the needs of present trade or anything that is likely to take place this year; and American bankers are financing foreign governments and shipments of foreign goods. Current liabilities of foreign merchants on "acceptances" amount to more than $120,000,000, compared with only nominal figures a year ago, and bid fair to increase rapidly. The sale of long-term bonds is slow, most investors preferring to await developments. This, of course, will retard much construction work, which cannot be carried on with high capital charges.

A conference of delegates from the Pan American states is now in the United States, and this continent bids fair to extend American trade in South America and place it on a permanent basis, for in connection with the sale of American goods, efforts, not without result, are being made to finance them in foreign countries. A delegation from China is spending two months in the United States, studying manufacturing and trade facilities.

Railroad buying has been on a larger scale. The number of cars ordered in May would total about 30,000, which is more than for the entire six months preceding. The buying of railway equipment, however, has been below normal for nearly two years. Some buying of rails has taken place, but not any large amounts.

LABOR

A shortage of labor, particularly for construction work, and rough labor around mills and factories, is likely to occur later in the year, and the demands of the unions will perhaps be more unreasonable than ever before.

One contractor, at least, who secures most of his labor from New York, has asked an agency to send him men at $2 per day. This, of course, is an unusual price, and it is possible that many orders could be filled, just at present, at $1.75 per day. The matter of labor, however, is going to be a most serious consideration for contractors and manufacturers before the end of the year. Everything points to a shortage of rough labor, such as now exists in the skilled labor market. It may, perhaps, be due to some not being familiar with the machine tool industry, but men who can operate machine tools are in demand at more than ordinary wages, particularly foremen who can handle large bodies of men and get out production. It will not be a question of "at what price," but rather "can the labor be obtained." With the entrance of Italy into the war, there will be no more Italian labor coming to this country, and practically none has arrived since Aug. 1, 1914. When it is recalled that nearly a million immigrants enter each year, and a goodly proportion of these are laborers who find their way to the ranks of the construction companies, the cutting off of this important source of supply can be realized. At present, only a few of the large companies seem to have taken the matter seriously. One of the largest companies in the United States has steadfastly refused to make extensive contracts for distant delivery at any price whatever, solely for the reason that it can not foretell what the labor market will be. Some companies were so farsighted in the latter part of 1914 that, while they could have reduced wages and had the reduction accepted practically without any opposition, they declined to do so, and the reason is now apparent. They wished to keep the workers in the vicinity of their own plants, even though it were idle, for nothing induces a workman to migrate more quickly than a cut in wages. They will stand unemployment and live, but when wages are cut, they almost invariably seek other locations, and in some cases other lines of employment.

It is more than possible that a greater proportion of female labor will be employed in factories than ever before.

CEMENT, LIME AND BRICK

Portland Cement—Practically no change is found in the market. The mills report a seasonable increase in the volume of orders and in shipments, but nothing sufficient to bring about any higher prices. It is evident that the cement trade is in for a spell of bad weather, but it seems improbable that present prices will continue throughout the season. In New York the price is $1.23, which includes the usual charge of 40c. for bags returned. The following quotations were current at the points named, and do not include the usual charge for bags:

Chicago	$1.11	Boston	$1.46
Detroit	1.19	Cleveland	1.16
Jersey City	0.74	Duluth	1.32
New York	0.82	Minneapolis	1.30
St. Paul	1.30	Pittsburgh	1.00

Brick—The market is steady, but with no animation. More brick have been sold so far this year than in the corresponding time last year. Prices are steady at $6 to $6.50 New York for Hudson River Common.

Crushed Stone—Business shows no special activity. Prices are unchanged at 95c. per cu.yd. for 1½-in. stone and $1.05 for ¾-in. stone.

Gravel—Material which will pass the specifications of the Public Service Commission, known as "subway gravel," sells at 95c. to $1. For 1½-in. gravel the price is 80c. For ¾-in. the price is 85c. These prices are for barge lots of 500 cu.yd. delivered alongside of dock New York.

Lime—The market is steady, standard 300-lb. special finishing selling at $1.55 to $1.60. Eastern common sells at $1.15.

IRON AND STEEL

Bluestone—At this season of the year an increase in this line of work usually takes place. However, dealers report that business is better than expected. Bronx flagging sells at 17c. per sq.ft. and Manhattan at 18c. per sq.ft. Curbing prices are steady; 5x16 in. brings 40c. per lin.ft. and 5x20 in. 45c. per lin.ft. Sewer bottoms are held at 25c. per sq.ft. for 5x5 ft. by 3 in.

Pig Iron—The market in pig iron during the past month has been quiet. After the increase of tonnage in April business decreased about one-half. The total sale of foundry iron for May was about 300,000 tons against 550,000 in April. The demand in the Eastern district remained without improvement, and in nearly all sections buying of foundry and steel making iron is confined to small lots. However, it is reported that some basic contracts have been placed in the Pittsburgh district on a basis of $12.50 a ton at Valley furnace. The Southern market remains dull, most of the reported sales being also of small lots. Eastern pipe works have taken some lots of low-grade foundry iron and negotiations are pending for 15,000 tons additional. Prices remain stationary, as producers are confident that a reduction would not induce many orders until conditions change. The departure of Italian workers for the war is causing a shortage of common labor in many quarters of the iron industry. The Connellsville coke district is bound to be affected, and a scarcity of labor is reported from the West Virginia coal fields. Prices in lots of 100 tons or over at the points named are as follows: Cincinnati, Southern Foundry No. 2, $12.50@12.75; Cincinnati Northern Foundry No. 3, $13.75@14. In New York quotations are as follows: No. 2X Northern Foundry, $14@14.50; No. 2 plain Northern Foundry, $13.75@$14.25; No. 2 Southern Foundry delivered, $13.50@14. Pittsburgh bessemer iron in $14.45 and basin $13.45 including the 95c. freight charges from the Valley to the Pittsburgh District.

Steel Rails—Business has improved and some very good orders placed. These include 25,000 tons for the Southern Pacific, 15,000 tons for the Lake Shore, 15,000 tons for the Chesapeake & Ohio, and 8000 tons for the Chicago & Alton. The Pennsylvania order for 135,000 tons is still hanging fire, but it seems probable that this will be placed within a few weeks. A feature of importance was an order taken by the Colorado Fuel & Iron Co. for a considerable amount for the Russian Government, and negotiations are pending for 100,000 tons of rails for the Trans-Siberian line. The Public Service Commission, New York, will be in the market for rails and both the Manhattan and the Brooklyn elevated lines will have to buy later. Prices for lots of 1000 tons and over are as follows: Standard sections of bessemer, $28; open hearth, $30; both per net ton f.o.b. Pittsburgh. Girder rails in 30-ft. lengths are $36.40 gross ton, and in 60-ft. lengths $38.40 per gross ton, both f.o.b. New York. Other quotations, f.o.b. Pittsburgh, for large lots, the prices being given in cents per pound. as follows: Standard sections, 1.25c.; 20- to 30-lb., 1.15c.; 15- to 20-lb., 1.20c.; 12- to 18-lb., 1.25c.; 8- to 12-lb., 1.30c. For large lots of light rails prices will be considerably shaded.

Track Supplies—The market is much more active than in several months, but rumors of large inquiries from Russia are received with more or less reserve. Standard raiload spikes are quoted at $1.35 to $1.40, and small railroad spikes at $17.45 to $1.50. These are in 100-lb. lots f.o.b. Pittsburgh. In Chicago, track bolts and square nuts are $1.90, and angle bars $1.50. These prices are per 100 lb. Tie plates can be had at the mill at $23.25 and $24.25 per net ton.

Structural Shapes—The prices of structural materials are unchanged compared with last month, but the figure of $1.20 Pittsburgh is more generally adhered to than was the case at that time. While fabricating business is not at all active, it is much better than a month ago, and the report of the Bridge Builders & Structural Society shows that about 63% of the fabricating capacity of the country is now operating. This compares with the low figure reached late last year of 32% of capacity. Prices are unchanged. For I-beams 3 to 15 in., channels 3 to 15 in., angles 3 to 6 in., T's 3 in. and over, $1.20. Other quotations include I-beams over 18 in., H-beams over 18 in., channels over 15 in., angles over 4 in., $1.25. T's, deck beams, and bulb-angles are $1.50, handrail T's $1.95. Cutting to specified lengths is charged at the following rates: 3 ft. to 2 ft. inclusive, 25c.; 2 ft. to 1 ft., 50c.; under 1 ft., $1.55. In Philadelphia the base price is $1.36, in San Francisco $2 to $2.05, New York, $1.37. All of these prices are per 100 lb.

Plates—Shipbuilding work is exceedingly active. Probably every shipyard on the Atlantic Coast has work enough to keep busy for 18 months. Foreign governments are attempting to have ships built here, but so far have been unsuccessful, and practically all the coastwise and ocean lines in the country are endeavoring to get more ships built. It is stated on good authority that it would be impossible to secure delivery promised on any orders placed now inside of 20 to 24 months. This means the most active demand for ship plates that the country has ever had. At the same time, car orders have been fairly large. The Pennsylvania R.R. has given out contracts for nearly 15,000 cars, but will build some of them in its own shops, and other railroads are in the market for a quantity. These have not affected the plate market as much as would be expected, for many of the cars now contracted for are box cars. The prices of plate are unchanged at $1.20 Pittsburgh, equivalent to $1.29 Chicago, $1.36 Philadelphia, $1.37 New York. All these quotations are per 100 lb.

Cast-Iron Pipe—The amount of business has not kept up with the expectations of the foundries, and there is very little tonnage of importance in sight. In Birmingham there is strong hope that freight rates to the Pacific Coast may be sufficiently reduced so they can secure a good share of this business. Prices are slightly higher at Birmingham, 4-in. being quoted at $20, 6-in. and upward at $18. In New York, Class B pipe is quoted $22 to $22.50, Class A pipe $23 to $23.50. In Chicago 4-in. is quoted at $25.50, 6- to 12-in. $23.50, 16-in. and larger $22. Gas pipe is held at one dollar per ton higher on all markets.

Pipe—Prices are somewhat higher. The demand for tubular goods is excellent, one of the manufacturers of pipe operating at 80% of capacity. One company has taken a contract for 50 miles of 8-in. and about 10 miles of smaller pipe.

Discounts are 1% less as follows:

	Black	Galvanized
¾- to 2-in. steel, butt welded	79%	68½%
2½- to 6-in. steel, lap welded	78%	67½%
7- to 12-in. steel, lap welded	76%	65%½

At these discounts, the net prices of pipe per foot, in large lots, at Pittsburgh are as follows:

	Cents			Cents	
Diameter	Black	Galvanized	Diameter	Black	Galvanized
½ in.	2.41	3.62	5 in.	32.56	47.10
1 in.	3.57	5.35	6 in.	42.24	62.40
1¼ in.	4.83	7.24	7 in.	57.12	81.91
1½ in.	5.77	8.66	8 in.	60.00	86.25
2 in.	7.77	11.65	9 in.	82.80	$1.18
2½ in.	12.87	18.91	10 in.	98.88	1.42
3 in.	16.83	24.85	11 in.	$1.11	1.59
4 in.	23.98	35.42	12 in.	1.21	1.74

Sheets—The price of galvanized sheets may have been higher in the early days of the industry, but at no time since they have been so successfully used in such a variety of industries, have prices ever soared to such levels. Some galvanized sheets now command a higher price than tin plate, and it is difficult to see how galvanized sheets can be used to any extent with the present prices of spelter in vogue. Some manufacturers are turning their attention to a lead coating of sheets, an expedient which was tried in the early days, and something which may now be successful. But it is needless to say that a lead coated sheet cannot be experimented with and put on the market in time to help very much in the present situation. The demand for black sheets has increased rapidly. No doubt exists but that many manufacturers are using black sheets where the galvanized were heretofore used almost exclusively. The following quotations are for large lots of sheets f.o.b. Pittsburgh, and small lots in store New York:

	Cents per Pound			
	Large lots Pittsburgh		Warehouse delivery New York	
	Black	*Galv.	Black	*Galv.
No. 10	1.55	2.60	....	....
No. 12	1.55	2.70	....	....
No. 14	1.60	2.70	....	....
No. 16	1.65	2.80	2.35	3.50
Nos. 18 and 20	1.70	2.95	2.40	3.65
Nos. 22 and 24	1.75	3.10	2.45	3.80
No. 26	1.80	3.30	2.50	3.95
No. 27	1.85	3.45	2.55	4.25
No. 28	1.90	3.60	2.60	4.65

*Quotations nominal.

Steel Sheet Piling—Prices continue practically without change at $1.50 to $1.60 per 100 lb. f.o.b. Pittsburgh.

Wire Rope—Business shows some increase, but the demand is not yet up to normal. Discounts are unchanged at 47 and 5% from list for galvanized, and 55 and 5% for bright. At these discounts the net prices of wire rope at the mills are as follows:

Diameter in Inches	Price per Foot		
	Cast Steel	Crucible Steel	Plow Steel
2½	$0.75	$0.90	$1.07
2¼	0.61	0.73	0.86
2	0.47	0.57	0.67
1¾	0.39	0.49	0.58
1½	0.28	0.34	0.40
1¼	0.20	0.24	0.27
1	0.13	0.15	0.18
¾	0.08	0.09	0.11
⅝	0.06	0.07	0.08

Old Materials—Prices are lower at many points in the country. The decision of Italy to enter the war brings up a new problem; for years this country has been the dumping ground for all the cheaper kinds of scrap. Will more or less now be required? The New York market is dull and prices are as follows:

	Per Gross Ton
Heavy-melting steel scrap	$8.75 to $9.00
Pipes and flues	8.00 to 8.25
No. 1 railroad wrought	10.50 to 10.75
Stove plate	7.75 to 8.00
No. 1 machinery cast	11.50 to 11.75
Wrought turnings	6.00 to 6.25

The Chicago market shows no scrap but railroad offerings are not coming in quite so heavily. The following prices are current:

	Per Gross Ton
Heavy-melting steel scrap	$9.50 to $9.75
	Per Not Ton
No. 1 railroad wrought	$9.00 to $9.50
No. 2 railroad wrought	8.25 to 8.75
No. 1 cast scrap	9.00 to 9.25
Pipes and flues	6.50 to 6.75
Agricultural malleable	7.25 to 7.50
Railroad malleable	8.25 to 8.50

The Pittsburgh market is no firmer but there is a general belief that, with the gradual but constant enlarging of mill operations, prices will improve. There has been no large accumulation and materials are in strong hands.

	Per Gross Ton
Heavy-melting steel scrap	$11.75
Rerolling rails	11.75 to 12.00
No. 1 foundry cast	12.00 to 12.25
Old car wheels	11.75 to 12.00
Machine shop turnings	7.75 to 8.00
Railroad malleable	10.50 to 10.75

Chain—Prices are steady and without change, as follows. These prices are per 100 lb., f.o.b. Pittsburgh:

3/16 in.	$7.50	½ and 9/16 in.	$3.00
¼ in.	4.95	⅝ and 11/16 in.	2.90
5/16 in.	3.95	¾ and 13/16 in.	2.80
⅜ in.	3.40	⅞ ond 15/16 in.	2.70
7/16 in.	3.20	1 to 1¼ in.	2.60

EXTRAS TO ABOVE LIST PER -00 POUNDS

	For BB	For BBB
3/16-in. and ¼-in.	$1.50	$2.00
5/16-in. and larger	1.25	1.75

Wire—Some of the wire mills, which have orders for war materials, have made new high records. The shipments of barbed wire into Italy have been very heavy for the last two months. The price of spelter has practically taken galvanized wire out of the market. Annealed fence wire sells at $1.35@1.40 and painted barbed wire $1.60, both f.o.b. Pittsburgh. Woven wire fencing is quoted at 72% discount for carloads, 71% in 1000 rod lots and 70% for small lots, all f.o.b. Pittsburgh.

Freight Rates—The freight rates on finished steel products from the Pittsburgh district, including plates, structural shapes, merchant steel, bars, pipe fittings, plain and galvanized, wire nails, rivets, spikes, bolts, black sheets (except planished), chain, etc., are as follows, in cents per 100 lb.: Boston, 18.9c.; Buffalo, 11.6c.; Baltimore, 15.4c.; Cleveland, 10.5c.; Cincinnati, 15.8c.; Chicago, 18.9c.; Denver, Colo., 68.6c.; New Orleans, 30c.; New York, 16.9c.; Philadelphia, 15.9c.; St. Louis, 23.6c.; Minnesota and St. Paul, 32.9c.; Pacific Coast (all rail), 80c.

Merchant Steel—Business shows an improvement but stocks in the hands of jobbers are large and in consequence the following quotations may be shaded at times. Prices from jobbers' store in New York are as follows:

	Cents Per Pound
Refined iron:	
1 to 1⅞ in., round and square	1.85
1½ to 4 in. x ⅜ to 1 in.	1.85
1½ to 4 in. x ¼ to 5/16 in.	2.05
Norway bars	3.20
Burdens bar iron	3.15
Soft steel:	
¾ to 3 in., round and square	1.85
1 to 6 in. x ⅜ to 1 in.	1.85
1 to 6 in. x ¼ and 5/16	2.00
Rods—⅝ and 11/16 in.	1.95
Bands—1½ to 6x3/16 in. to No. 8	2.15
Beams and channels—3 to 15 in.	1.90
Angles:	
3 in. x ¼ in. and larger	1.90
3 in. x 3/16 in. and ⅛ in.	2.35
1½ to 2¾ in. x 3/16 in. and thicker	2.00
11½ to 2½ in. x ⅛ in.	2.10
1 to 1¼ in. x 3/16 in.	2.10
1 to 1¼ in. x ⅛ in.	2.15
Tees:	
1½ to 2½x¼ in.	2.05
1½ to 2½x3/16 in.	2.15
3 in. and larger	1.95

REINFORCING MATERIALS

Bars, Concrete Reinforcing—Business shows an improvement and there is a great deal of activity at the mills due to the manufacturer of larger bars for war materials.

	Cents per Pound		
Size	Mill Shipments Pittsburgh	*Warehouse Pittsburgh	Delivered from *Warehouse New York
¾-in. and larger	1.20	1.55	2.00 to 2.05
⅝-in.	1.25	1.70	2.05 to 2.10
½-in.	1.40	1.85	2.20 to 2.25
⅜-in.	1.50	1.95	2.30 to 2.35
¼-in.	1.80	2.25	2.65 to 2.70

*Bars from warehouse are cut to desired length without extra charge.

Triangle Mesh—Prices continue steady and there is a fair inquiry:

PRICE PER 100 SQ.FT.

		Plain Material		Galvanized	
Style No.	Cross Sec. Area per Ft. Width	Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.	Carload Lots	Less Than Car Lots and Over 10,000 Sq.Ft.
†4	0.102	$1.00	$1.23	$1.12	$1.34
5	0.077	0.80	0.97	0.89	1.00
6	0.058	0.63	0.77	0.71	0.84
†7	0.041	0.49	0.60	0.55	0.66
†23	0.170	1.69	2.05	1.88	2.24
24	0.142	1.46	1.77	1.62	1.93
25	0.124	1.29	1.57	1.43	1.71
†26	0.110	1.17	1.42	1.30	1.55
†27	0.085	0.96	1.17	1.07	1.28
28	0.066	0.80	0.97	0.89	1.06
29	0.049	0.66	0.80	0.73	0.87
31	0.261	2.49	3.02	2.76	3.29
32	0.225	2.16	2.62	2.40	2.86
33	0.196	1.93	2.34	2.14	2.55
34	0.146	1.48	1.80	1.64	1.96
35	0.109	1.117	1.42	1.30	1.55
36	0.075	0.87	1.05	0.97	1.15
38	0.380	3.55	4.30	3.93	4.68
†39	0.325	3.05	3.70	3.38	4.03
40	0.283	2.68	3.25	2.97	3.54
41	0.208	2.05	2.48	2.27	2.70
42	0.151	1.55	1.88	1.72	2.05
†43	0.101	1.10	1.34	1.23	1.46

METALS

Copper—Prices have about held their own since last month. Production has increased, and, with it, consumption. One of the features of the copper market is that American electrolytic sells in London at about ¾c. per lb. less than is charged to consumers here. Sales have been made in New York for delivery in London at 18c. f.o.b. New York, and resales made at London at 18c. to 18½c. f.o.b. New York, are making an impression on the consumers, but a further readjustment and real competition among producers to balance selling prices are probable. During the last of the month domestic manufacturers bought electrolytic from large producers at 18⅞c. delivered 30 days for shipment from June to August, while second hands find it difficult to sell small lots at 18½c. delivered 30 days. Lake copper has sold at 23c. in New York, and inquiries are being made for 1916. Exports since the first of May have been about 29,000 tons.

Tin—The metal has further declined in price since May 1. Large imports have no doubt contributed to the decline, beside which the market has been dull. Far-off positions are weaker, and nearby tin is also easier owing to the small demand. Arrivals for May amount to about 6000 tons. It is interesting to note that some Bauka and Chinese tin is being offered and prompt shipment from Batavia is offered at 35¾c. Spot tin is held at 37½c. with nearby positions at 37c. June delivery at 36¾c., July at 36½c., August and later positions at 36c. Prices are nominal only and under present conditions there is little opportunity for large trade.

Lead—Prices have advanced since last month and its position is strong. In 50-ton lots for shipment from the West the price advanced to 4.50c. Spot in the open market at New York was held at 4.50c. and at East St. Louis 4.42½c.

Spelter—The market has been in more or less of an excited state ever since the beginning of the month. Prices have steadily advanced, and are nominal, owing to the scarcity of spot. The high prices may bring about resales, but first hands have but little to offer. Spot at New York is quoted at 21c. and at East St. Louis, June and July metal is nominal at 20c. No sales are reported of August and September metal.

Old Metals—A fair demand has existed but advanced sharply. Selling prices are approximately:

	Cents per Pound
Copper, heavy cut and crucible	17⅛
Copper, heavy and wire	17
Copper, light and bottom	14⅞
Heavy Machinery composition	13.50
Brass, heavy	12.00
Brass, light	11.00
No. 1 clean brass turnings	13.25
No. 1 composition turnings	12.50
Lead, heavy	3.90
Lead, tea	3.65
Zinc, scrap	14.00 to 16.00

Miscellaneous Metals—Prices of various brass products are higher than ever before. The following quotations are more or less nominal, due to the inability to forecast the market even for a day or so:

	Per Pound
Brass tubes, iron-pipe sizes:	
½ in.	29.00
¾ in. to 3 in.	28.00
3½ in.	28.00
4 in.	29.00
Brass rods	24.00
Brass sheets	24.00
Solder	29.00
Copper tubes	29.00
Zinc sheets	25.00
Copper sheets	25.00
Pig tin (five-ton lots, cash)	38.00
Bismuth	$3.75 to $4.00

CLAY PRODUCTS

Sewer Pipe—As expected, the arrival of warm weather has caused a general improvement in the market. Moreover, there is a decided increase in the amount of sales as compared with the corresponding time last year. Prices remain unchanged, the following discounts being effective: On 3-in. to 24-in. sizes, 80% off list; 27 and 30 in., 70%; 30 and 36 in., 65%. At these discounts, prices are as follows:

PRICE OF SEWER PIPE PER FOOT

Size		Size	
3-in.	$0.05	18-in.	$0.38
4-in.	0.05	20-in.	0.45
5-in.	0.08	22-in.	0.60
6-in.	0.08	24-in.	0.65
8-in.	0.11	27-in.	1.35
10-in.	0.16	30-in.	1.65
12-in.	0.20	33-in.	2.20
15-in.	0.27	36-in.	2.45

Flue Lining—A considerable improvement has been shown during the month, and conditions are very favorable for a large volume of business. However, the discounts remain unchanged at 80% off list. At this rate, prices are unchanged as follows:

FLUE LINING PRICE PER FOOT

Size	Weight in Lb.	Price per Ft.	Size	Weight in Lb.	Price per Ft.
4½x8½-in	14	$0.07	8½x18-in	45	$0.18
4½x13-in	20	0.09	13x13-in	45	0.17
7½x7½-in	15	0.08	13x18-in	57	0.24
8½x8½-in	18	0.09	18x18-in	75	0.40
8½x13-in	28	0.13			

MISCELLANEOUS

Railway Ties—No activity can be reported. Conditions remain about the same as a month ago. Manufacturers look fordward to an improvement during July. First-class standard ties, 7x9 in. by 8 ft. 6 in. are selling at 73c.; 6x8 in. by 8 ft. at 60c. These prices are f.o.b. New York.

Asphaltum—The demand for sheet-asphalt pavements in the last three years has been nothing short of marvelous, prices in the South and Middle West making possible a pavement increasing in popularity, yet low-priced and durable. This is due in a large measure to the great demand for the moderate priced Mexican asphalts, which, since their introduction about three years ago, have practically revolutionized the sheet asphalt paving industry. Prices for the finished pavement in the South and East run from $1.50 to $1.65 per sq.yd. for 1-in. binder and 2-in. top. The price for Mexican paving asphalts for this class of work, has declined to about $13.50 per net ton, f.o.b. refineries, in wooden barrels. Indications are for extensive shipments to the West and South, with prices holding steady.

RAILWAYS

New York.—Jerseyfield Ry.—Plans are being made by this company for the extension of its line for a distance of seven miles, from Salisbury Center, N. Y., to the timber lands. P. D. Mang, Dolgeville, N. Y., is interested.

North Carolina—Atlantic & Western R.R.—This company is making surveys for the extension of its line from Benson to Mt. Olive, N. C. H. P. Edwards, Sanford, N. C., is Supt. and Pur. Agt.

South Carolina—Savannah, Piedmont & Western Ry.—Preliminary surveys have been made by this company for the construction of its proposed railway from Augusta to Greenwood, S. C., about 60 miles. J. Pelton Clark, Engr., 42 Cedar St., New York, N. Y., is interested. Noted Apr. 8.

South Carolina—The Truitt Lumber Co., Norfolk, Va., will extend its railway from Fowler to Nesmith, S. C.

✚Illinois—Burlington, Mississippi & Eastern Ry.—According to press reports this company has awarded the contract for the construction of its proposed railway from Apree, Ill., to a point opposite Muscatine, Iowa, to the GULF CENTRAL CANADIAN CONSTRUCTION CO., Minneapolis, Minn. Noted Mar. 4.

Wisconsin—Bayfield & Western Ry.—Acording to press reports plans are being prepared by this company for the extension of its line from Bayfield, Wis., to Herbster, Wis., to connect with the Northern Pacific Ry., making a direct route from Duluth, Minn., to the Bayfield and Cornucopia Districts. H. C. Hale, Bayfield, Wis., is Secy. and Gen. Mgr.

Arkansas—Ingleside & East Arkansas R.R.—This company is being organized for the purpose of constructing a railway from Ingleside to Fisher, Ark. S. B. Richmond, St. Louis, Mo., is interested.

Texas—Henry L. Lindsley, Mayor of Denton, Tex., and associates contemplate the construction of a cut-off railway from Krum to Denton, about seven miles.

Texas—C. O. Williams, Corpus Christi, is interested in the construction of a railway to connect Beeville, Cadiz., Oakville and Three Rivers, Tex., about 25 miles.

Texas—Preliminary arrangements are being made and work will begin about Aug. 1 for the construction of the proposed railway to connect Midland, Andrews, Seminole and Brownville, Tex. W. L. Carwile, Dallas, and T. J. O'Donnell, Midland, are interested. Noted May 13.

Oklahoma—Atchison, Topeka & Santa Fé Ry.—This company has purchased the Oil Belt Terminal Ry., from Jennings to Oilton, Okla., and the Cushing Traction Co., from Cushing to Pemeta, Okla. The company proposes to construct a line from Pemeta to Oilton and a branch from Pemeta to Drumright. F. M. Bisbee, Amarillo, Tex., is Ch. Engr. Western Lines.

Arizona—Tucson, Cornelia & Gila R.R.—Bids will be received until June 10 by John C. Greenway, Warren, Ariz., Gen. Mgr., for the construction of 38 miles of this company's proposed line from Gila Bend to a point near Ajo. R. H. Jones, Gila Bend, is Ch. Engr. Noted May 27.

Oregon—Spokane, Portland & Seattle Ry.—Plans are being considered by this company for the construction of two miles of spur track for its yards at Bend, Ore., across the Des Chutes River. A. M. Lupfer, Portland, is Ch. Engr.

ELECTRIC RAILWAYS

Springfield, Mass.—The Springfield St. Ry. Co. is considering the petition of the Van Horn Citizens Club for an extension of its line from Chestnut and Carew St., through Carew St. to connect with the present tracks on Page Blvd. R. G. Tyler is Ch. Engr.

Middletown, Conn.—The Middletown & Chester Ry. Co. has been incorporated to construct an electric railway from Middletown to Chester. The incorporators are: Richard H. Bunce, Gustaf B. Carlson, Isaac Spear, Randolph S. Lyon, George Burnham, Eben Jackson, Dale D. Butler, Middletown, and Robert W. Perkins, Norwich. Noted Dec. 24.

New York, N. Y.—(Borough of Queens)—The Manhattan & Queens Traction Corporation contemplates the construction of a loop from Queens Blvd. along Van Dam St. to Review Ave., along Review Ave. to Laurel Hill Blvd. to Packard St. and back to Queens Blvd., Long Island City. S. B. Severson, Queens Plaza Court, Long Island City, is Pur. Agt. and Gen. Mgr.

Port Jervis, N. Y.—The Port Jervis Traction Co. is preparing plans to extend its line to Milford, Penn. W. E. Guthrie, Port Jervis, is Gen. Mgr.

Syracuse, N. Y.—The New York State Rys. Co. will spend $75,000 for the improvement of its line on East Genesee St. P. J. Honold, Syracuse, is Pur. Agt.

Koppel, Penn.—The Pittsburgh, Harmony, Butler & New Castle Ry. Co. has completed surveys for the construction of its proposed extension from Koppel to New Galilee. The line will connect with the Pittsburgh, Lisbon & Western R.R., a steam road extending from New Galilee through Darlington to Lisbon, Ohio, which will be purchased by the Pittsburgh, Harmony, Butler & New Castle R.R. and converted into an electric line.

Lynchburg, Va.—The Lynchburg Traction & Light Co. has applied to the City Council for a franchise to extend its line from the Fair Grounds to Ft. Hill. J. W. Hancock, Lynchburg, is Gen. Mgr. and Pur. Agt.

Parkersburg, W. Va.—Preliminary arrangements are being made by the Charleston, Parkersburg & Northern Ry. Co. for the construction of its proposed electric railway from Parkersburg to Charleston, about 74 miles. K. B. Stephenson is interested. Noted Sept. 24.

✚Lulu, Ga.—(Official)—The Lulu-Homer R.R. Co. has awarded the contract for the construction of its railway from Lulu to Homer, to WILLIAM J. REDMOND, Atlanta, Ga. Noted Jan. 21.

Bristol, Tenn.—Surveys have completed and contracts will soon be awarded for the construction of an electric railway from Newport to Kingsport and Bristol. LeRoy Park, Bristol, is interested.

Cleveland, Ohio—The Cleveland Ry. Co. has applied to th City Council for a franchise to construct a three-mile extension to its 25th St. line on State Rd. Charles H. Stanley Pur. Agt. Noted May 27.

Gary, Ind.—The Gary, Hobart & Eastern Ry. Co. is considering plans for the extension of its tracks in Gary fro Broadway east to Virginia St. and north to the mill gate B. J. Schramm, Hobart, is Gen. Supt. and Pur. Agt.

Muskegon, Mich.—The Muskegon, Casnovia & Saginaw Interurban Ry. Co. has completed surveys for the constructio of its proposed line from Crystal Lake to Muskegon, abou 80 miles. C. S. Gamble, Muskegon, is Engr. Noted Apr. 29

Milwaukee, Wis.—The Milwaukee Western Electric Co has completed surveys for the extension of its line to Merton W. D. Chapman, Steger Bldg., Chicago, Ill., is Gen. Mgr.

Cedar Rapids, Iowa—The City Council has granted a franchise to the Iowa Ry. & Light Co. to construct additiona tracks on Fourth Ave. from Second to Third St. William G. Dows is Gen. Mgr. Noted May 27.

Iowa City, Iowa—The Iowa City-Muscatine Interurban Ry. Co. has completed surveys for the construction of its proposed electric railway from Iowa City to Muscatine and West Liberty. A. L. Bowen, Muscatine, is interested. Noted Apr. 29.

Abilene, Tex.—The Abilene Gas & Electric Co. is preparing to extend its lines to Clyde, Putnam, Baird and Cisco.

Houston, Tex.—Franklin Watson and W. N. Vinton, Columbus, Ohio, have taken over the holdings of the Beaumont-Houston Interurban Ry. Co. The new owners have applied for a charter and will organize a company to construct the line. Noted Jan. 21.

Marfa, Tex.—Preliminary arrangements are being made and contracts will soon be awarded for the construction of the proposed railway from Marfa to Ft. Davis, Tex., about 18 miles. B. T. Musgraves, Ft. Davis, is Pres. and H. A. Hardaway, Deming, N. M., is Ch. Engr. Noted Apr 15

Salem, Ore.—The Willamette Valley Southern Ry. Co. is preparing plans for the extension of its line from Salem to Mt. Angel. F. W. Hild, Portland, is Gen. Mgr. Noted May 6.

Suisun City, Calif.—The Northern Electric Co. plans to construct a seven-mile line from Suisun City to Oakland. W. A. McGovern, Chico, is Gen. Mgr.

LIGHT, HEAT AND POWER

Reading, Mass.—Bids will be received until June 5 by the Municipal Light Board for constructing extensions to the present distribution system of the municipal lighting system. George L. Flint, 179 Main St., is Secy. of the Bd. Noted May 13.

Worcester, Mass.—The Worcester Electric Light Co. has decided to build an addition to its Webster St. station at an estimated cost of $160,000. The plans provide for a one-story 80x104-ft. building and a 175-ft. chimney. Space will be provided for eight boilers, but only two will be installed at present, of 1050 hp. each. They will be equipped with mechanical stokers. A hot-water heater will also be installed. R. W. Rollins is Pres. and Mgr.

Worcester, Mass.—The City Council has authorized an appropriation of $8000 for improving and enlarging the power plant of the City Hospital.

Rochester, N. Y.—The Vacuum Oil Works, Rochester, has applied for a permit to build a one-story power house at 904 Exchange St. The estimated cost is $4000.

Newark, N. J.—It is reported that the Central Dyestuff & Chemical Co. contemplates the construction of a power plant in connection with its plant on Plum Point Lane. M. N. Shoemaker is Engr.

✚Perth Amboy, N. J.—The Board of Aldermen has awarded the contract for the construction of a municipal electric-light plant to the WATSON-FLAGG ENGINEERING CO., 27 Thames St., New York, N. Y., at $122,082. Noted Mar. 25 and Apr. 22.

West Hoboken, N. J.—(Official)—Bids will be received until June 9 by August L. Wachlin, Town Clk., for lighting the streets and public places of the town.

✚St. Clair, Penn.—The Borough Council has awarded the contract for extensions and improvements to the municipal electric-light plant to the HAZLETON MACHINERY & SUPPLY CO., 242 West Broad St., Hazleton. Noted May 27.

Indian Head, Md.—See item under "Federal Government Work."

Plymouth, N. C.—At a recent election, the citizens defeated a bond issue of $12,000, which was to have been used for the installation of a municipal electric-light plant. Noted Apr. 29.

Winder, Ga.—It is reported that the city will replace its present steam generating system with electric power. Energy will be purchased from the Georgia Ry. & Power Co., Atlanta, which will extend its transmission line from Gainesville to Winder. J. T. Strange is Chn. of Bd. of Water & Light Comrs., Winder.

Whitecastle, La.—See item under "Water Supply—Irrigation."

Crossville, Tenn.—It is reported that E. B. Jones and John E. Green are interested in the establishment of an electric-light plant at Crossville.

Nashville, Tenn.—The State Senate has passed a bill authorizing an appropriation of $7000 for the purpose of building a transmission line from the power plant at the State Penitentiary to the State Capitol building to light the latter building.

Harlan, Ky.—The Harlan Commercial Club is reported to be interested in a $250,000 electric power plant to be built at Harlan by an association of Cincinnati capitalists.

Richmond, Ky.—The Dicks River Power Co., which was organized some time ago to build a hydro-electric plant in central Kentucky, will soon begin work, according to press reports. L. B. Herrington, Richmond, is Pres.

Canton, Ohio—It is reported that the Canton Electric Co. has purchased a site on which to build an addition to its power station. The company has authorized improvements to its system to cost about $250,000. W. C. Anderson, Canton, is Mgr. and Supt.

Marietta, Ohio—The City Council has vetoed the ordinance to purchase electricity for the operation of the municipal electric-lighting system from the Parkersburg, Marietta & Interurban Ry. Co. The Building Committee of the Council has been authorized to select a site for a power station, and the Light Committee will secure estimates of the cost of equipping a new municipal electric plant.

Painesville, Ohio—A special election will be held June 22 to vote on the question of issuing $35,000 in bonds, the proceeds of which will be used for improving the municipal electric-lighting system. Noted May 6.

+Bremen, Ind.—The Town Council has decided to abandon the municipal electric-light plant, and has awarded a 10-year contract for lighting the town to the HAWKS ELECTRIC CO., Goshen, Ind. The latter company will build a 12-mile transmission line to Bremen.

Whitestown, Ind.—Bids will be received until 1 p.m., June 12, by Walter Schooler, Bd. of School Trustees of Worth Township, for the installation of heating, ventilating and plumbing equipment in the high school building of Worth Township.

Salt Lake City, Utah—It is reported that the Utah Power & Light Co. plans to spend about $1,000,000 in extending and rebuilding its present lines. A new street-lighting system will be installed in Salt Lake City.

+Seattle, Wash.—The Board of Public Works has awarded the contract for the installation of an additional boiler at the Lake Union auxiliary steam plant of the municipal electric-light plant to CHARLES C. MOORE & CO., San Francisco, Calif., at $18,175. Noted Apr. 1.

Hull, Que.—Bids will be received until 4 p.m., June 7, by H. Boulay, City Clk., for powerhouse equipment, to include a 1200-hp. water wheel and water wheel governor, one set double helical gears, 600-kw. electric generators and a centrifugal pump. J. P. Albert Leforest is City Engr.

BRIDGES

Milford, Conn.—It is reported that the Board of Selectmen and the Connecticut Co., New Haven, contemplate the construction of a reinforced-concrete bridge across the Wepowaug River. The estimated cost is $16,000. Alonzo W. Buins is First Selectman of Milford. W. R. Dunham, Jr., New Haven, is Engr. of the Connecticut Co.

Bryson City, N. Y.—(Official)—Bids will be received until 1 p.m., June 7, by the "Swain Highway Commission," Bryson City, for the construction of a 300-ft. bridge across the Tuckasegee River. Bids will be accepted for either a steel or concrete structure. T. M. Howerton is Engr.

Watertown, N. Y.—(Official)—Bids will be received until noon, June 15, by Henry J. Snook, City Treas., for the purchase of $107,500 in bridge bonds.

Brielle, N. J.—(Official)—Bids will be received until 11 a.m., June 9, by J. M. Corlies, Dir., Bd. of Chosen Freeholders of Monmouth County, Freehold, for the construction of a bridge over an arm of the Manasquan River in Wall Township, known as the Brielle Bridge. George D. Cooper, 60 Broad St., Red Bank, is County Engr. Noted May 13.

Elizabeth, N. J.—It is reported that the Board of Chosen Freeholders of Union County has approved plans for a new concrete arch at Union Ave. The estimated cost is $12,000. Jacob L. Bauer is County Engr.

Hackensack, N. J.—(Official)—Bids will be received until 2 p.m., June 4, by the Board of Chosen Freeholders of Bergen County for constructing the following bridges: North Irving St., Ridgewood; Ramapo Ave., Mahwah; Martha St. and East 54th St., both in Saddle River Township; Latchman's Bridge, Riverdale Township; Tappan Rd., Borough of Harrington Park; Washington Pl., Englewood; replanking the Anderson St. Bridge, Hackensack. Harry A. Shuart is Clk., Bd. of Freeholders. Ralph D. Earle, Jr., is County Engr.

Kearney, N. J.—It is reported that the Delaware, Lackawanna & Western R.R. will build a viaduct at Sandford's Crossing for the elevation of its tracks over the Newark Turnpike.

Coopersburg, Penn.—It is reported that bids will be asked in July by the Commissioners of Lehigh County, Allentown, for the construction of a concrete bridge at Coopersburg. The estimated cost is $4000. Robert Rathburn, Hunsicker Bldg., Allentown, is Engr.

+Indiana, Penn.—(Official)—The Board of Commissioners of Indiana County has awarded the contract for the construction of two bridges to the CURWENSVILLE CONSTRUCTION CO., Curwensville, at $4493. Bids will be received until noon, June 10, for the construction of a county bridge. Thomas Pealer, Indiana, is County Engr.

+Phoenixville, Penn.—The commissioners of Montgomery and Chester Counties have awarded the contract for a temporary bridge across the Schuylkill River between Phoenixville and Mont Clare to the BENDER CONSTRUCTION CO., Phoenixville, at $7448. This structure will replace the old bridge which was totally destroyed by fire recently. Noted May 20 under Mont Clare, Penn.

West Chester, Penn.—(Official)—Bids will be received until June 7 by the Board of Commissioners of Chester County for the construction of five bridges: One stone arch over Buck Run in Newlin Township; four concrete and I-beam bridges, one each in Penn Township, Lower Oxford Township, West Nottingham Township and New Garden Township. Isaac Y. Ash is County Controller.

Clarksville, Va.—Bids will be received until noon, June 10, by R. H. Easley, Mayor, for reflooring and repairing the Clarksville Toll Bridge.

Luray, Va.—(Official)—Bids will be received until noon, June 10, by the Clerk of the Circuit Court of Page County for the construction of a 105-ft. bridge over Hawksbill Creek about one mile from Luray. Alteranate bids will be received for a reinforced-concrete or steel structure. G. P. Coleman, Richmond, is State Highway Comr.

+Washington, Va.—(Official)—The Board of Commissioners of Rappahannock County has awarded the contract for a bridge across the Rappahannock River between Rappahannock and Fauquier Counties to E. M. McCOMB, Manassas. Noted May 13.

Chattanooga, Tenn.—The State Legislature has authorized Hamilton County to build an additional bridge across the Tennessee River at an estimated cost of $100,000.

+Henderson, Ky.—(Official)—The Fiscal Court of Henderson County has awarded the contract for the construction of 10 reinforced-concrete bridges to H. H. LILLY, Smith Mills, at a total of $5505. Contracts for one bridge each were awarded to the CHAMPION BRIDGE CO., Wilmington, Ohio, and the INTERNTAIONAL STEEL & IRON CO., Evansville, Ind. Noted Apr. 22 and May 20.

Paducah, Ky.—It is reported that the Chicago, Burlington & Quincy R.R. Co. will soon begin the construction of a bridge across the Ohio River near Paducah. The estimated cost is $4,000,000. C. H. Cartlidge, Chicago, is Bridge Engr.

Ashland, Ohio—(Official)—Bids will be received until noon, June 14, by the Board of Commissioners of Ashland County for the construction or repair of seven county bridges. D. F. Hay is Chn. of Comrs. H. C. Westover is County Audr.

Cincinnati, Ohio—(Official)—Bids will be received until noon, June 8, by Philip Fosdick, Dir. of Pub. Ser., for rebuilding and repairing Bridges Nos. 1 and 2 on Crawford Ave., over Ludlow Run. Parke S. Johnson is Secy. of the Bd.

McArthur, Ohio—Bids will be received until noon, June 8, by the Board of Commissioners of Vinton County for the construction of a steel bridge on the McArthur-Athens Rd. C. W. Brown is County Audr.

Sidney, Ohio—Bids will be received until 10 a.m., June 15, by George P. Staley, Audr. of Shelby County, for the construction of a concrete arch over Panther Run Creek in Cynthiana Township.

+East Gary, Ind.—The Board of Commissioners of Lake County, Crown Point, has awarded the contract for a steel bridge of three 53-ft. spans on concrete abutments, across the Deep River at East Gary to E. H. CROWELL, Crown Point, at $12,924. Noted Jan. 28.

Franklin, Ind.—Bids will be received until 2 p.m., June 7, by the Board of Commissioners of Johnson County for a bridge in Hensley Township. H. L. Knox is County Audr.

La Fayette, Ind.—No bids were received recently by the Commissioners of Tippecanoe County for the construction of a reinforced-concrete bridge at Sycamore Crossing. The estimated cost was $4000. The project has been held in abeyance, and an additional appropriation will probably be asked for the structure. G. W. Baxter is County Audr.

Richmond, Ind.—(Official)—Bids will be received until 11 a.m., June 12, by the Commissioners of Mayne County for the construction of the Ellis Culvert. It will be of reinforced concrete. L. S. Bowman is County Audr.

Benton Harbor, Mich.—The City Council has called a special election for June 7 to vote on the question of issuing $28,000 in bonds for the purpose of building a concrete arch over Ox Creek, connecting High St. and East High St. C. R. Wightman is City Engr.

Concord, Mich.—It is reported that the Mayor and City Council have authorized the issue of $86,000 in bonds, the proceeds of which will be used for building new bridges at Main and Pembroke St.

+Spring Lake, Mich.—The contract for constructing two bridges in Spring Lake Township across Curtis and Smith Bayous, has been awarded to HOWARD GARDNER, Spring Lake, at $9300.

Mt. Sterling, Ill.—(Official)—Bids will be received until 1 p.m., June 12, by W. O. Grover, County Supt. of Highways of Brown County, for the construction of either a reinforced-concrete or steel bridge in Pea Ridge Township. It will be a 60-ft. span with 18-ft. roadway.

+Allison, Iowa—The Board of Supervisors of Butler County has awarded the contract for a number of county bridges to the MILLER-HEY CONSTRUCTION CO., Waterloo, at $18,608.

Council Bluffs, Iowa—It is reported that bids will be asked about June 18 by the Supervisors of Pottawattomie County for the construction of a steel bridge to cost about $20,000. It will have two 60-ft. and one 40-ft. pony trusses with I-beam approaches of 20 and 24 ft. J. D. Hannan is County Audr. H. M. Howard is Engr.

Red Lake Falls, Minn.—Bids will be received until 1:30 p.m., June 11, by George Dupont, Audr. of Red Lake County, for the construction of three reinforced-concrete bridges and four culverts.

Beloit, Kan.—Bids will be received until noon, June 9, by the Board of Commissioners of Mitchell County, C. M. Seidel, Chn., for the construction of Bridges Nos. 810,201 and 86,141. T. H. McCall is County Clk.

Lincoln, Kan.—Bids will be received until noon, June 7, by C. E. Booze, County Clk. of Lincoln County, for the construction of two bridges.

+Nebraska City, Neb.—(Official)—The Board of Commissioners of Otoe County has awarded the contract for the construction of five bridges during the year to the WILSON REINFORCED CONCRETE CO., Nebraska City. C. A. Shannon is County Engr. Noted Apr. 24.

+North Platte, Neb.—(Official)—The Commissioners of Lincoln County have awarded the contract for the construction of a 700-ft. bridge over the North Platte River, two miles east of the Town of North Platte, to the OMAHA STRUCTURAL STEEL WORKS, Omaha, at $29,250. Noted Apr. 15 and 29.

O'Neill, Neb.—The Commissioners of Holt County, O'Neill, and Boyd County, Butte, and the State Highway Department will build a 175-ft. steel bridge across the Niobrara River connecting the two counties. It will replace a bridge recently washed away. The estimated cost is $10,000. D. D. Price, Lincoln, is State Highway Engr.

Cody, Wyo.—Press reports state that Park County contemplates building three steel bridges on the Cody Rd., at an estimated cost of $5500 each.

Joplin, Mo.—At a recent special election the citizens defeated a bond issue of $13,500 for the construction of a viaduct on North Main St. J. B. Hodgdon is Comr. of Streets. Noted Feb. 25.

Macon, Mo.—Bids will be received until 2 p.m., June 9, by the Macon County Court for the construction of six county bridges, ranging from 24 ft. to 50 ft. in length.

✚Oregon, Mo.—(Official)—The Board of Commissioners of Holt County has awarded the contract for the construction of five steel bridges and 16 concrete culverts to the MISSOURI BRIDGE & IRON CO., St. Louis. Five other bids were received. Noted May 13.

✚Platte City, Mo.—The County Court of Platte County has awarded contracts to the TOPEKA BRIDGE & IRON CO., Topeka, for constructing the following bridges: Bridge over Cottonwood Rd., $4625; over Muddy Creek on the San Antonio Rd., $3900, and over the Little Neuralgia on the Union Rd., $3830. Contracts for 10 small bridges, aggregating $6160, and the repair of eight bridges, at a total of $2557, were awarded to various local contractors. Ray Cargill is County Highway Engr.

Laredo, Tex.—Bids will be received until 10 a.m., June 15, by J. S. Westbrook, Chn., St. and Bridge Com., for the construction of two reinforced-concrete bridges across Zacate and Chacon Creeks.

Kingfisher, Okla.—Bids will be asked shortly by the Commissioner of Kingfisher County for the construction of 16 steel and reinforced-concrete bridges, from 24 to 100 ft. long, with concrete abutments. W. G. Newer is County Clk. C. R. Steele is Engr.

✚Idaho City, Idaho—The Commissioners of Boise County have awarded contracts for two bridges, one across the North Fork of the Payette River on the road between Garden Valley and Banks, and the other across Clear Creek at Alpha, to the MISSOURI VALLEY BRIDGE & IRON CO., Denver, Colo., at $6800 and $2000 respectively.

Eugene, Ore.—H. W. Libby, County Engr. of Lane County, has prepared plans for the Coast Fork Bridge, to be built at an estimated cost of $11,000. A pile bridge, costing about $3000, is planned for the Suislaw River.

Mayfield, Wash.—(Official)—Bids will be received until 2 p.m., June 14, by the State Highway Commission, Olympia, for the construction of a 468-ft. cantilever steel bridge across the Cowlitz River at Mayfield. It will require about 190 tons of steel and 615 cu.yd. of concrete. Noted Jan. 28.

✚Colusa, Calif.—The Board of Supervisors of Colusa County has awarded the contract for the construction of several concrete bridges near Colusa to PETER GRASER, Williams, at about $10,000.

★Needles, Calif.—(Official)—Bids will be received until 2 p.m., June 19, by the Commissioner of Indian Affairs, Washington, D. C., for the construction of a steel highway bridge across the Colorado River at Topock, Ariz., near Needles, between the states of Arizona and California. The bridge will be 832 ft. long and the main span shall consist of a three-hinged arch of 592 ft. Plans and specifications on file at the office of "Engineering News," 10th Ave. at 36th St., New York. E. B. Merritt is Asst. Comr. of Indian Affairs. Noted Mar. 18 and Apr. 15.

Nevada City, Calif.—The Board of Supervisors of Nevada County plans to construct two new concrete bridges at Nevada City; one across Little Deer Creek and the other across Gold Run Ravine.

✚San José, Calif.—The Board of Supervisors of Santa Clara County has awarded a contract for the construction of a concrete bridge over Los Gatos Creek, near Los Gatos, to JOHN W. WILLIAMS, San José, at $5280. Noted May 13.

Ottawa, Ont.—Bids will be received until June 8 by J. W. Pugsley, Secy., Dept. of Rys. and Canals, Ottawa, for the construction of eight bridges on the main route of the Intercolonial Ry.

Vancouver, B. C.—The City Engineering Department is preparing plans and estimates of the cost of rebuilding the Connaught Bridge which was recently destroyed by fire.

WATER SUPPLY—IRRIGATION

Middleton, Mass.—(Official)—Bids will be received until June 5 by B. T. McGlanfein, Chn. Water Comn., for making extensions to the water system. The estimated cost is $7500. Noted Mar. 25.

★Salem, Mass.—(Official)—Bids will be received until 10 a.m., June 21, by the Director of Public Service, for installing two 10,000,000-gal. steam pumps. George F. Ashton is City Engr.

✚Salem, Mass.—The contract has been awarded to A. G. TOMASELLO, Boston, at $68,455, for constructing a concrete reservoir. Noted May 13 and 27.

Worcester, Mass.—An appropriation of $80,000 has been made by the City Council for construction work on the Asnebumskit water supply system at Pine Hill reservoir. Noted Apr. 22.

★Binghamton, N. Y.—Bids were received for the construction of a 10,000,000-gal. high-pressure pumping engine as follows: William Todd Co., $41,365, for a pump with condenser discharge; William Todd Co., $40,865, for a pump with condenser and suction; Snow Steam Pump Works, $27,240; Allis-Chalmers Mfg. Co., $29,220, and the Hamilton Corliss Engine Works, $26,000. Noted Apr. 1.

Oswego, N. Y.—A special election will be held in June to vote on the question of issuing $35,000 in bonds, the proceeds of which will be used for the extension and repair of the water system.

Wellsville, N. Y.—Bids will be received about July 1 for constructing a water system, the estimated cost of which is $104,000. C. C. Hopkins, Cutler Bldg., Rochester, is Engr. Noted Mar. 18.

✚East Orange, N. J.—The contract has been awarded b the Water Board to the REEVES-CUBBERLY ENGINE Co Trenton, for furnishing two vertical cross-compound engine to be directly connected to centrifugal pumps of 4,000,000 ga capacity each. Noted Apr. 8.

Perth Amboy, N. J.—The Board of Water Commissioner has authorized the extension of the water mains in Carso Hommann, Pulaski Ave. and in Colfax St. Thomas Griev is Supt. of Water-Wks.

Bethlehem, Penn.—(Official)—The city has had plans approved by the State Department of Health for drilling wells for the water system.

Canton, Penn.—(Official)—The Citizens Water Co. has had preliminary plans approved by the State Department of Health for the construction of filters and for remodeling the distributing system.

Gleniron, Penn.—A water system will be installed at the Pennsylvania Home for Feebleminded Women. George S. Idell, Philadelphia, is Arch.

Gratz, Penn.—(Official)—The State Department of Health has approved preliminary plans of the Gratz Water Co. for the construction of a pumping station, a reservoir and pipe lines.

Hegins, Penn.—(Official)—Preliminary plans of the Hegins Water Co. for the construction of a reinforced-concrete reservoir have been approved by the State Department of Health.

Houtzdale, Penn.—(Official)—Extensions will be made to the distributing system of the Ramey Water Co. Plans have been approved by the State Department of Health.

Madera, Penn.—(Official)—The Madera Water Co. will make extensions to its distributing system, plans for which have been approved by the State Department of Health.

New Wilmington, Penn.—(Official)—Alterations to the storage reservoir, for which plans have been approved by the State Department of Health, will be made by the New Wilmington Water Supply Co. Noted Dec. 10, 1914.

Norristown, Penn.—(Official)—The Norristown Insurance & Water Co. will install rapid sand filters at its water-works. The State Department of Health has approved plans.

Portage, Penn.—(Official)—The Portage Water Co. will enlarge its storage reservoir. Plans have been approved by the State Department of Health.

Reading, Penn.—(Official)—The Reading Suburban Water Co. will install slow sand filters, plans for which have been approved by the State Department of Health.

Saltsburg, Penn.—(Official)—The Borough will soon be in the market for a 5000,000-gal. to 750,000-gal. pump of either high-pressure duplex or steam turbine driven centrifugal type for the water-works. Robert H. Wilson, Saltsburg, is Chn. of Water Com.

Schuylkill Haven, Penn.—The Schuylkill Haven Service Commission to make extensions and improvements to its water system.

Scottdale, Penn.—(Official)—Plans have been approved by the State Department of Health for gravity supply mains for the Citizens Water Co.

Shamokin, Penn.—(Official)—The State Department of Health has approved the plans of the Bear Gap Water Co. for the construction of a storage reservoir.

Myersville, Md.—(Official)—The city contemplates constructing a gravity water system. Tobert B. Morse, Baltimore, is Ch. Engr. Dept. of Health. Noted Sept. 17, 1914

✚Petersburg, Va.—The contract has been awarded to the PITTSBURGH-DES MOINES STEEL CO., Pittsburgh, Penn., at $4475, by the Water Commissioners for two 60,000-gal. water tanks. Noted May 13.

Keyser, W. Va.—The citizens contemplate holding an election to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a water system. Leander Schaidt, Citizens' Bank Bldg., Cumberland, Md., is making surveys.

Gastonia, N. C.—According to press reports the city has sold bonds for $99,000, part of the proceeds of which will be used for the extension of the water system. T. A. Ratchford is City Clk.

Warrenton, N. C.—Bonds for $50,000 have been voted by the citizens, part of the proceeds will be used for the construction of a water system. Gilbert C. White, Charlotte, is Engr. Noted Mar. 18 and Apr. 29.

✚Wilmington, N. C.—The contract has been awarded to A. D. O'BRIEN, Wilmington, at $4126, for installing a water system in the Oakdale cemetery. Noted May 13.

Wilson, N. C.—An election will be held July 6 to vote on the question of issuing $250,000 in bonds, the proceeds of which will be used for the reconstruction of the water-works and for building a gas plant and paving. Noted Feb. 25.

Ft. Meade, Fla.—Bids will be received until June 15 for the purchase of $58,000 in bonds, part of the proceeds of which will be used for the extension of the water system. J. J. Singleton is Secy. Bd. of Bond Trust. Noted Sept. 10 and May 20.

Greenville, Fla.—The city will install a water system. Fred A. Bishop is Engr.

Dadeville, Ala.—Bonds for $16,000 have been voted by the citizens, the proceeds of which will be used for the installation of a water system. Noted Mar. 25.

White Castle, La.—The city voted in favor of installing water and electric-light systems. The estimated cost is $25,000. Xavier A. Kramer, Magnolia, Miss., is Engr. Noted Apr. 22.

Tomkinsville, Ky.—The construction of a water system is under consideration. L. W. Preston, Glasgow, is interested.

East Liverpool, Ohio—(Official)—Bonds for $200,000 have been sold, the proceeds of which will be used for the extension of the water system. J. A. Kenney is Audr. Noted Mar. 4 and May 6.

Euclid, Ohio—Bids will be received until noon, June 28, by H. S. Dunlop, Clk., for laying a 6-in. water main in Cut Rd., from Lake Rd. to Lake Erie.

South Charleston, Ohio—Bonds for $30,000 have been voted by the citizens, the proceeds of which will be used for the construction of a municipal water system.

Milton, Ind.—The Connersville Water Co. has received a franchise from the Town Board and according to press reports, will construct water and electric-light systems.

South Lyon, Mich.—The city has retained Rossback & McKee, Ft. Wayne, Ind., to prepare plans for the construction of a municipal water system.

+Carlyle, Ill.—The contract has been awarded to MONIE & DUNBAR, St. Louis, Mo., for furnishing a pump and for making extensions to the water system. Noted Apr. 22 and May 13.

Eureka, Ill.—Bonds for $17,000 have been voted by the citizens, the proceeds of which will be used for the extension of the water system. A. S. V. Baird is City Clk. Noted Apr. 15.

+Peoria Heights, Ill.—The contract has been awarded to W. G. HOY, Woodstock, at $47,000, for laying water mains. Noted Dec. 24 and Mar. 18.

Sparta, Ill.—Bids will soon be received for the construction of water and sewer systems, the estimated cost of which is $60,000. W. McK. Brown, Cohakia Bldg., East St. Louis, is Engr. Noted Dec. 3 and 10, and Mar. 18.

Springfield, Ill.—The Council contemplates purchasing 475 tons of water pipe from the Lynchburg Foundry Co.

Fennimore, Wis.—Bids will be received until June 7 by H. B. Lewis, Village Clk., for furnishing and installing one deep well power pump head, motor, controller, one electrically operated outside guide and packed power pump, motor and control, one electrical centrifugal fire pump, motor and control and pipe, fittings and valves.

Milwaukee, Wis.—Bids will be received until 8 p.m., June 7, by A. F. Schwann, Village Clk., North Milwaukee, for constructing 5700 ft. of 12-in. water main in Cedarburg Plank Rd. and 1003 ft. of 8-in. main in Hampton Ave.

+Milwaukee, Wis.—The contract has been awarded by the Board of Park Commissioners to ARTHUR H. VOGEL, Milwaukee, at $17,690, for constructing about 100 ft. of rock-filled timber crib at the new Linnwood Ave. water-works intake.

Salix, Iowa—(Official)—Bids will be received after Aug. 1 for the construction of a water system. The estimated cost is $10,000. H. S. Bruce, Yankton, S. D., is Engr.

Campbell, Minn.—(Official)—Bids will be received until 7:30 p.m., June 15, by Herman Reyelts, Village Recdr., for constructing a water system. Plans are on file with J. F. Druar, Engr., Commercial Bldg., St. Paul. Noted May 20.

St. Paul, Minn.—(Official)—The date has not yet been set when bids will be received for the improvement of the water system. Allen Hazen, New York, N. Y., is Engr. and Garrett O. House, St. Paul, is Supt. of Water Wks. Noted May 20.

Canova, S. D.—(Official)—Bids will be received until 8 p.m., June 18, by H. H. Schulte, Town Clk., for the purchase of $9500 in bonds, the proceeds of which will be used for the construction of a water system. Noted May 20.

Edgemont, S. D.—Bonds for $30,000 have been voted by the citizens, the proceeds of which will be used for the improvement of the water system.

Irene, S. D.—(Official)—The low bidder for constructing a water system was W. L. Bruce, Yankton, at $11,110.

Cody, Wyo.—According to press reports, the Billings Engineering Co., Billings, has been retained by the City Council to prepare plans for the construction of a municipal water system and electric-light plant. B. W. Bennett is City Clk. Noted Jan. 2, 1913.

Chouteau, Mont.—The town contemplates constructing a water system, the estimated cost of which is $42,000. Swearingen & McCulloh, Chouteau, is Engr. Noted May 6.

+★Lewistown, Mont.—(Official)—The contract has been awarded to the HESS FLUME CO., Denver, Colo., at about $5000, by the Winnett Irrigation Co., for constructing metal flumes. E. H. Holmboe is Secy. Noted Apr. 15.

Wibaux, Mont.—An election will be held July 1 to vote on the question of issuing bonds, the proceeds of which will be used for the construction of a water system. Noted May 13.

Argenta, Ark.—The Council favors purchasing the plant of the Arkansas Water Co. at an estimated cost of $400,000.

Kansas City, Mo.—The Council contemplates rejecting bids received for furnishing a motor-driven centrifugal pump for the Turkey Creek pumping station. Noted Apr. 22.

Harrison, Ark.—Bids will be received until June 25 by George W. O'Neal, City Secy., for the construction of a water system. The estimated cost is $25,000. M. A. Earl & Co., Flynn-Ames Bldg., Muskogee, Okla., is Engr. Noted Nov. 5, Jan. 14 and Apr. 22.

+Beaumont, Tex.—The contract has been awarded to the LAKE ARTHUR DREDGING CO., Lake Arthur, La., at $21,775, by the city for the extension of the water-works canal. Burns & McDonnell, Sterritt Bldg., Kansas City, Mo., is Engr.

Dallas, Tex.—The Southern Methodist University plans to spend $35,000 for the improvement of the water system.

Ft. Worth, Tex.—The Board of Reservoir Engineers contemplates raising the height of the Lake Worth dam three feet. The estimated cost is $9000. J. D. Trammell is Chn. of the Bd.

Marlin, Tex.—(Official)—An election will be held June 15 to vote on the question of issuing $15,000 in bonds, the proceeds of which will be used for the extension of the water system. J. H. Poncee is Secy. Noted May 20.

Slaton, Tex.—Bonds for $10,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system. C. C. Hoffman is City Clk. Noted Apr. 15.

Antlers, Okla.—Bids will be received about July 15 for making extensions to the water and sewer systems. C. E. Hagerty, Mid-Continent Bldg., Muskogee, is Engr. and A. Walker is City Clk. The estimated cost is $30,000.

Beggs, Okla.—(Official)—At the recent election the citizens defeated the bond issue for $35,000, the proceeds of which was to have been used for the construction of a water system. C. J. Brane is Town Clk. Noted May 20.

Claremore, Okla.—The city contemplates installing a filtration plant at an estimated cost of $10,000. M. A. Earl & Co., Flynn-Ames Bldg., Muskogee, is Engr. and L. S. Robson is City Atty.

Oilton, Okla.—(Jennings post office)—A water system will be constructed by Easton & Dunn. The cost has not as yet been given out.

Downey, Idaho—The City Council contemplates purchasing the water system of the Downey Water Co., owned by I. W. McConnell and John Ware.

Colfax, Wash.—Bonds for $60,000 have been voted, according to press reports, the proceeds of which will be used for the construction of a new pipe line and for the improvement of the water system. Noted May 13.

+Prescott, Wash.—(Official)—The contract has been awarded to GEORGE SCHREIVER, Walla Walla, at $8449, for making extensions to the water system. J. C. McSherry is Clk. Noted Apr. 8 and May 20.

Seattle, Wash.—The City Council has authorized the laying of water mains in Fifth Ave., W., and contemplates laying water mains in 27th Ave. L. B. Youngs is Supt. of Water-Wks.

Bandon, Ore.—At an election to be held June 16 the citizens will vote on the question of issuing $80,000 in bonds, the proceeds of which will be used for the extension of the water system, recently purchased.

Portland, Ore.—An election will be held June 7 to vote on the question of purchasing 5000 water meters.

Imperial, Calif.—(Official)—Bids will be received until 7 p.m., June 16, by the City Clerk for constructing 41,809 sq.ft. of floor and lining reinforced with wire mesh in connection with the irrigation system. T. E. McDougal is City Engr. Noted Jan. 22, 1914.

St. Joseph de Levis, Que.—See item under "Sewers."

★Stratford, Ont.—(Official)—Bids will be received until 9 a.m., June 25, by F. A. Gaby, Ch. Engr., Hydro-Electric Power Comn., Continental Life Bldg., Toronto, for an elevated water tower.

SEWERS

+Boston, Mass.—The contract for sewer construction in Perthshere Rd., Brighton District, has been awarded to CHARLES LATORELLA, at $1058.

Boston, Mass.—Bids will be received until June 8 by the Board of Public Works for the construction of drains and for sewer work in Rich and Randolph Rd., Oakland, Risewood and Glendower St. and for the construction of the Paine St. conduit, West Roxbury District.

Westfield, Mass.—At a recent election the citizens voted in favor of issuing $12,000 in bonds, the proceeds of which will be used for the construction of house sewers in various streets.

Worcester, Mass.—The city contemplates issuing $10,000 in bonds, the proceeds of which will be used for the construction of sewers.

Bridgeport, Conn.—The city contemplates the construction of 12,000 ft. of 12- to 48-in. sewers. A. H. Terry is City Engr.

★Greenwich, Conn.—(Official)—Bids will be received until 8 p.m., June 14, by the Sewer Commissioners for the construction of 22,500 ft. of sewers in various streets. S. E. Minor is Engr.

Brockport, N. Y.—Bids will soon be received for the construction of a sewage-disposal plant. The estimated cost is $25,000. C. C. Hopkins, 349 Cutler Bldg., Rochester, is Engr. Noted Mar. 18.

Freeport, N. Y.—An election will be held June 16 to vote on the question of constructing a sewer system. The estimated cost is $300,000. Noted Mar. 27.

+Buffalo, N. Y.—The contract for the construction of a pipe sewer in Calais St. has been awarded to the FAHNING-GAVEY CONSTRUCTION CO., at $4491. Noted Apr. 15.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received May 26 by L. H. Pounds, Borough Pres., for the construction complete of the superstructures of the sewage pumping station, Section No. 2, and constructing sewers in Ave. V, as follows: Ruggles Robinson Co., $70,467; Simon Russek, $83,790; Conners Bros., $74,450; Northeastern Construction Co., $69,990; W. Flanagan, $64,900. J. Kress & Co., $61,900; N. H. Smyth, Inc., $85,900; F. J. Feron Co., $63,978; Marble Arch Co., $78,000; Kelly & Kelly, Inc., $67,700; William H. Egan, $57,789. Noted May 13.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received May 24 by Marcus M. Marks, Borough Pres., for the construction of sewers in Liberty St. from Nassau St. to Broadway, as follows: Briggs & McLoughlin, $7260; Fitzgerald & Brennan, $7771; Melrose Construction Co., $6313; P. J. Kearns Constructing Co., $7015; E. A. Mathews, $7753; U. S. Drainage & Irrigation Co., $9605; Capperini & DeBlassio, $7310; Patrick Reilly, $6949; Laconia Construction Co., $5778. Noted May 20.

Syracuse, N. Y.—Plans are being prepared by Marshall B. Palmer, Deputy City Engr., for the construction of approximately five miles of sewers in the 17th Ward. The estimated cost is $140,000.

Atlantic City, N. J.—The city contemplates an expenditure of about $100,000 for the extension of a storm water drainage system. J. W. Hackney is City Engr.

Bradford, Penn.—(Official)—Preliminary plans have been approved by the State Department of Health for the construction of a sewage treatment plant for the Bradford County Almshouse.

Cheyney, Penn.—(Official)—Preliminary plans have been approved by the State Department of Health for the construction of sewage-treatment works for the Cheyney Training School for Teachers.

Danville, Penn.—(Official)—Preliminary plans have been approved by the State Department of Health for the construction of a sewer system.

Montrose, Penn.—An election will be held June 8 to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for the construction of a sewage-disposal plant.

South Connellsville, Penn.—(Official)—Preliminary plans have been approved by the State Department of Health for the construction of a sanitary sewer system.

Wernersville, Penn.—(Official)—Preliminary plans have been approved by the State Department of Health for the construction of a sewage-treatment plant for the Galen Mountain Co.

Wilkes-Barre, Penn.—(Official)—Bids were received May 25 by F. H. Gates, City Clk., for construction of sewers, as follows: (a) circular brick and 24-in. terra cotta, (b) natco lock joint sewer tile and 24-in. terra cotta, (c) vitrified segment block and 24-in. terra cotta, D. M. Rosser, Kingston, (a) $47,586, (b) $45,343, (c) $47,020; James Ferry & Son, Baltimore, Md., (a) $67,390, (b) $62,530, (c) $63,699; Melan & Ryan, Wilkes-Barre, (a) $57,700, (b) $52,715, (c) $53,525; John J. Hart, Peekskill, N. Y., (a) $63,127, (b) $61,649, (c) $62,801; Charles Dugan, Williamsport, (a) $56,194; (b) $52,121, (c) $51,785. B. K. Finch is City Engr. Noted Apr. 22.

Annapolis, Md.—(Official)—The State Department of Health has approved plans for the construction of a sewer system and a sewage-disposal plant. The state has appropriated $50,000 for the work.

Germantown, Md.—(Official)—The State Department of Health has approved plans for the construction of a sewer system.

Ocean City, Md.—(Official)—The State Department of Health has approved plans for the construction of a sewer system. Noted Dec. 24.

Salisbury, Md.—(Official)—The city contemplates the construction of water and sewer systems and a sewage-disposal plant. Robert R. Morse is City Engr.

+Richmond, Va.—The contract for the construction of a section of the Beacon Quarter Branch sewer has been awarded to McAUGHEY & VAN DOREN, at $65,000.

+South Richmond, Va.—(Richmond post office)—The contract has been awarded to A. W. MAYNARD, at $4000, for the construction of a sewer in Bainbridge St. from 14th St. to Cowardin Ave.

Hertford, N. C.—(Official)—Bids will be received until 7 p.m., June 7, by the Board of Commissioners, for the purchase of $50,000 in bonds, the proceeds of which will be used for the construction of sewers. W. E. White is Mayor. Noted May 27.

Warrenton, N. C.—At a recent election the citizens voted to issue $50,000 in bonds, the proceeds of which will be used for the construction of a sewer system and water works. Noted Apr. 29.

+Walterboro, S. C.—The contract for sewer construction has been awarded to the DUSARD CONSTRUCTION CO., Atlanta, Ga., at $13,660. Noted Mar. 25 and Apr. 22.

Greenville, Fla.—The city contemplates the construction of a sewer system. F. A. Bishop is Engr.

Okolona, Miss.—(Official)—The contract for the construction of a sewer system estimated to cost $40,000 will be awarded about June 17. Frank L. Wilcox, Syndicate Trust Bldg., St. Louis, Mo., is Engr. Noted Apr. 8 and May 6.

Hammond, La.—The citizens recently voted to issue $40,000 in bonds, the proceeds of which will be used for the construction of a sewer system and a sewage-disposal plant. Noted Apr. 29.

Cleveland, Tenn.—Bids will be received until June 17 by C. A. Mee, Mayor, for the construction of a sewer system. The estimated cost is $75,000. Noted Apr. 29.

Lexington, Ky.—The city contemplates the construction of a sewage-disposal plant.

Chillicothe, Ohio—Plans are being prepared by H. M. Redd, City Engr., for the construction of approximately 1400 ft. of 36- and 40-in. storm lateral sewers to intersect Honey Creek storm sewer.

+Cincinnati, Ohio—(Official)—The contract for the construction of sewers in Manns, Latham and Beech Ave. has been awarded to the CONNELLY CONSTRUCTION CO., at $17,108. Frank Krug is City Engr. Noted May 6 and 27.

Cleveland, Ohio—Bids will be received until June 10 by the Commissioner of Purchase and Supplies for the construction of sewers in Sandusky Ave. between East 93rd and East 102nd St. and in Norman Ave. Robert Hoffman is City Engr.

Cleveland, Ohio—(Official)—Bids were received May 27 by the Commissioner of Purchase and Supplies for the construction of the Superior Ave. sewer, as follows: Amata Construction Co., $23,239; J. Connolly Construction Co., $25,939; William Lehman, $25,086; W. P. Gibbons Contracting Co., $26,387; James Duff Construction Co., $27,985; Hoag & Zullo, $29,697. Robert Hoffman is City Engr. Noted May 20.

Columbus, Ohio—Bids will be received until June 16 by the Board of County Commissioners for the construction of sewers and a sewage-disposal plant for the Franklin County Infirmary.

Columbus, Ohio—Bids will be received until June 11 by George A. Borden, Dir. of Pub. Ser., for moving and resetting three boilers from the main sewage pumping station and for the installation of mechanical stokers.

Findlay, Ohio—(Official)—Bids will be received until Ju 5 by the Director of Public Service for the construction Hagerman Run Conduit estimated to cost $25,000. H. Glathart is City Engr. Noted May 27.

+Piqua, Ohio—The contract for the construction of stor sewers in South Downington and Wayne St. and sanitar sewers in Adams St. has been awarded to BOYD & COOK Dayton, at $9458.

Frankfort, Ind.—Plans are being prepared by R. H. Boyn ton, City Engr., for the construction of a district and loca sewer system. Bids will be received about June 17 by C. H Cohee, City Clk., for the work.

Chicago, Ill.—Bids will be received until June 18 by th Board of Local Improvements for the construction of th Norwood Park sewer system. C. D. Hill is Engr.

+Herrin, Ill.—(Official)—The contract for the constructio of a mechanical filtration plant, with a 1,000,000 gal. daily capacity, has been awarded to the PITTSBURGH FILTER MFG. CO., Pittsburgh, Penn., at $18,107. Other bids were New York Continental Jewell Filtration Co., $18,043; Kennicott Co., $19,000; H. H. Hall Construction Co., $18,036. R. L. Adams is City Engr. Noted May 20.

Peoria, Ill.—The contract will soon be awarded for the construction of the West Section of the North Peoria sewer in McClure Ave. and North St. The estimated cost is $8257. Noted May 20.

Sparta, Ill.—See item under "Water Supply-Irrigation."

+Beloit, Wis.—The contract for the construction of one mile of 8-in. vitrified pipe sewer has been awarded to HANSEN & NELSON, Racine, Wis. G. E. Heebink is City Engr.

Milwaukee, Wis.—(Official)—Bids will be received until June 4 by F. Heintz for the construction of storm and sanitary sewers. The estimated cost is $35,000. G. H. Randall is City Engr. Noted May 20.

New Glarus, Wis.—Bids will be received until 7:30 p.m., June 4, by E. J. Hoesly, Clk., for sewer construction. W. G. Kirchoffer is Engr.

Oshkosh, Wis.—Bids will be received until 2 p.m., June 4, by George H. Randall, City Engr., for the construction of sanitary sewers. The estimated cost is $35,000. Noted May 20.

+Racine, Wis.—(Official)—The Board of Public Works has awarded the contract for the construction of sewers in 21st St. from Lake Michigan to West Blvd. to HANS C. HAUSEN, 2348 Kinzie Ave., Racine, at $79,975. Other bids were: Johnson & Thomsen, Racine, $81,883; James Cape & Sons Co., Racine, $82,812; E. R. Harding, Racine, $84,106; Albert H. Prunge, Grand Rapids, Mich., $86,631. P. H. Connolly is City Engr. Noted May 20.

South Milwaukee, Wis.—Bids will be received about June 10 by John O'Connell, City Clk., for sewer construction.

+Wausau, Wis.—(Official)—The contract has been awarded to CARL LOTZ, Wausau, for the construction of sewers in Bellis and Seventh St. and in Garfield Ave. at $17,250. F. W. KRAUSE, Wausau, has been awarded the contract for the construction of the Franklin St. sewer at $2660. B. C. Gowen is City Engr. Noted May 20.

Wauwatosa, Wis.—Bids will be received about Sept. 3 by A. V. Brigham, City Clk., for the construction of storm sewers estimated to cost $25,000.

Des Moines, Iowa—The city contemplates an expenditure of about $200,000 for construction of the Closer Creek sewer system. F. Carrs is Engr.

+Tripoli, Iowa—(Official)—The contract for the construction of a sewer system and a sewage-disposal plant has been awarded to the CEDAR RAPIDS CONSTRUCTION CO., at $20,728. Other bids were: D. E. Keller Co., Davenport, $23,654; Michael McEllicot, Evanston, Ill., $22,833; Dearborn Construction Co., Waterloo, $25,882; Taylor & Moriarty, Sioux City, $22,964; Henry Rees, Quincy, Ill., $24,701. Noted Apr. 22 and May 13.

St. Paul, Minn.—Bids will be received about July 10 for the construction of the Como-Snelling sewer system. The estimated cost is $289,000. Noted May 13.

Augusta, Kan.—Preliminary plans are being prepared by Worley & Black, Engr., 301 Reliance Bldg., Kansas City, Mo., for the construction of a sewer system. E. Weidlein is City Clk.

Omaha, Neb.—The city contemplates issuing $100,000 in bonds for the construction of a sewer system.

Omaha, Neb.—The city contemplates the construction of sewers in Miller Park, estimated to cost $62,000; in Sprague Ave. from 36th to 43rd St., estimated to cost $57,000; and a sewer from 42nd to 47th St. to take the place of the present open creek sewer.

Laurel, Mont.—The city contemplates the construction of sewer work as follows: District No. 13, 2180 ft. of 8-in. pipe sewers, estimated to cost $3900; District No. 14, 6510 ft. of 8-in. pipe sewers, manholes and flush tanks, estimated to cost $9820; District No. 12, 2610 ft. of 8-in. pipe sewers, estimated to cost $4500. O. H. Bundy is City Clk.

Wibaux, Mont.—The city contemplates the installation of a sewer system. The estimated cost is $14,000. J. R. Quamme is City Clk.

Harrisonville, Mo.—Preliminary plans are being prepared for the construction of a sewer system, estimated to cost $30,000. W. B. Rollins & Co., 439 Midland Bldg., Kansas City, Mo., is Engr.

St. Louis, Mo.—(Official)—Bids will be received by the city until June 18 for the construction of sewers in the Sixth District. The estimated cost of the work is $37,000. E. R. Kinsey is Pres., Bd. of Pub. Ser.

Antlers, Okla.—See item under "Water Supply-Irrigation."

+Anderson, Tex.—The contract has been awarded to the J. G. BROWNE CO., Houston, for the construction of a sewer system. Noted Sept. 10.

✚**American Falls, Idaho**—(Official)—The contract for sewer construction has been awarded to S. A. FORTER, American Falls, at $22,416. Frank Moench is City Engr. Noted Apr. 22.

Mesa, Ariz.—At an election held May 18 the citizens voted to issue $75,000 in bonds, the proceeds of which will be used for the construction of a sewer system and a septic tank. Noted Apr. 29.

✚**Cathlamet, Wash.**—The contract for the construction of a sewer system has been awarded to C. G. RANDLES, at $9784.

Chehalis, Wash.—Bids will be received until 4 p.m., June 7, by the City Commissioners for the construction of a sewer system. The estimated cost is $25,366. D. W. Boone is City Clk. Noted May 27.

Everett, Wash.—Bids will soon be received by Louis Lesh, City Clk., for the construction of a sewer system estimated to cost $11,000. J. W. Hoover is City Engr.

Seattle, Wash.—The Board of Public Works contemplates the construction of a sewer in the tunnel at Second Ave. and West 39th St. The estimated cost is $12,000. A. L. Valentine is Chn., Bd. of Pub. Wks.

Seattle, Wash.—Plans have been approved by the Board of Public Works for the construction of a sewer system in Stroud Ave., estimated to cost $31,000. Noted Oct. 15 and 29.

Walla Walla, Wash.—Bids will be received until June 8 by W. R. Rehorn, City Engr., for the construction of vitrified pipe sewers estimated to cost $9000.

North Bend, Ore.—(Official)—Bids will be received until 5 p.m., June 8, by C. E. Maybee, City Recdr., for sewer construction estimated to cost $25,300. R. L. Cavanagh is City Engr. Noted May 6 and 13.

Marysville, Calif.—Plans are being prepared by M. Meek, City Engr., for the construction of sanitary sewers. The estimated cost is $20,000. An election will soon be held to vote on the question of issuing bonds. Noted Apr. 8.

✚**Sacramento, Calif.**—The City Commission has awarded the contract for the construction of the fifth unit of the trunk sewer in the annex district to JAMES KENNEDY, Los Angeles, at $104,912. Noted May 20.

San Francisco, Calif.—Bids will soon be received for the construction of a sewer in Fifth St., between Howard and Brannan St. The estimated cost is $80,000. Frederick J. Churchill is Secy.

Sierra Madre, Calif.—Plans have been prepared by C. Bixby, City Engr., for the construction of a sewer system and a sewage-disposal plant for the Cañon District. Noted Jan. 21.

✚**Stockton, Calif.**—The contract for the installation of sewers in the Fair Oaks District has been awarded to BISHOP & TUMELTY, Stockton, at $7285.

St. Joseph de Levis, Que.—The Town Council contemplates extending the sewer and water-works system. The estimated cost is $150,000. Gawin & Beauchemin is Engr.

Burlington, Ont.—Bids will be received until June 15 by the Town Clerk for the construction of sanitary storm sewers under Contract A, constructing sewage-disposal plant under Contract P, furnishing sewer pipe under Contract S, constructing sewage-disposal works under Contract X. Chipman & Power is Engr.

Thorold, Ont.—The city contemplates the construction of a sewer system estimated to cost $25,000. J. S. Clark is Clk.

Toronto, Ont.—Bids will be received until June 8 by T. L. Church, Chn. Bd. of Control, for the construction of sewers in various streets.

GARBAGE

✚**Cliffside Park, N. J.**—(Cliffside post office)—The contract has been awarded to JAMES GRICCO, Cliffside Park, by the Council for the removal and collection of garbage.

★**Detroit, Mich.**—(Official)—Bids will be received until 10 a.m., June 24, by George H. Fenkell, Comr. of Pub. Wks., for completing the garbage reduction plant on the northeast side of the Detroit Terminal Railroad between Shoemaker and Harper Ave.

STREETS AND ROADS

✚**Boston, Mass.**—The contract for constructing a bituminous macadam roadway in Oakland St., Dorchester District, has been awarded to W. J. BARRY, at $7345. Other bids were: D. M. Biggs & Co., $7413; J. Doherty, $7559; Martino de Matteo, $7761; John Landis, $8543; Clark & Gore, $8706; Charles J. Jacobs Co., $8780; W. J. Rafferty & Co., $9574. Noted May 20.

Boston, Mass.—Bids will be received until June 4 by the Public Works Department for bituminous macadam roadways in Fletcher St. and Howitt Rd., West Roxbury District, and until June 7 for bituminous macadam roadways in Chase, Hamlet, Grace and Ridgewood St., Dorchester District

Boston, Mass.—Bids will be received until June 4 by the Supply Department for furnishing 50,000 gal. of nonasphaltic road oil. D. Frank Doherty is Supt.

★**Albany, N. Y.**—(Official)—Bids will be received until 1 p.m., June 18, by Edwin Duffey, State Highway Comr., for improving highways in various counties.

✚★**Albany, N. Y.**—(Official)—Contracts have been awarded for constructing roads in various counties as follows: Road No. 1238, Broome County, 1.03 miles, TYNE & WILLEY, Binghamton, $49,274; Road No. 5412, Broome County, 0.28 mile, PADDLEFORD & KING, Sherburne, $11,135; Road No. 5440, Broome County, 0.41 mile, ARTHUR D. OSBORNE, Binghamton, $20,488; Road No. 1269, Cattaraugus County, 5.62 miles, WOOLSEY CONSTRUCTION CO., Davenport, $74,127; Road No. 1275, Cattaraugus County, 3.95 miles, O. M. SEVERSON & CO., Erie, Penn., $67,727; Road No. 5544, Cattaraugus County, 6.88 miles, D. D. DUGAN & SONS, Olean, $132,688; Road No. 1270, Delaware County, 7.69 miles, SAMUEL BESKIN, Beacon, $72,768; Road No. 1271, Delaware County, 11.40 miles, FULTON ENGINEERING CO., INC., Albany, $128,446; Road No. 1272, Delaware County, 5.84 miles, E. J. ANDERSON, Menands, $63,898; Road No. 1268, Genesee County, 4.49 miles, JOHN JOHNSON CONSTRUCTION CO., Buffalo, $39,732; Road No. 1242, Greene County, 4.43 miles ,JOHN L. HAYES CONSTRUCTION CO., Yonkers, $50,420; Road No. 5553, Oneida County, 5.73 miles, B. F. S. CO., Herkimer, $49,893; Road No. 1139, Ontario County, 1.38 miles, THOMAS F. MURRAY, Le Roy, $17,306; Road No. 1276, Ontario County, 1.23 miles, SCHROEDER-HICKS CONTRACTING CO., Rochester, $23,272; Road No. 1277, Ontario County, 1.53 miles, LAKE SHORE CONSTRUCTION & SUPPLY CO., Dunkirk, $66,349; Road No. 1278, Ontario County, 8.63 miles, H. BENEDICT, Williamsport, Penn., $55,206; Road No. 1262, St. Lawrence County, 5.07 miles, W. T. THAYER & CO., Chateaugay, $44,882; Road No. 1266, St. Lawrence County, 3.09 miles, THOMAS O'BRIEN, Watertown, $31,802; Road No. 5551, Schenectady County, 3.34 miles, WILLIAM GREEN, $32,462; Road No. 1274, Suffolk County, 10.50 miles, TOWN OF SOUTHAMPTON, Southampton, $113,068; Road No. 1081, Washington County, 3.34 miles, JOHN CRISORIO, Albany, $27,354; Road No. 1223, Washington County, 5.96 miles, E. J. ANDERSON, Menands, $62,261. Noted May 6 and 27.

Bath, N. Y.—The city contemplates an expenditure of $40,000 for paving Washington, Liberty and Steuben St.

East Aurora, N. Y.—The citizens voted to pave Buffalo Rd., at an estimated cost of $20,000.

Fredonia, N. Y.—Bonds for $18,000 were sold, the proceeds of which will be used for street improvements.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., June 9, by L. H. Pounds, Borough Pres., for regulating, paving, grading and otherwise improving various streets.

✚**New York, N. Y.**—Borough of Brooklyn)—(Official)—Contracts have been awarded for improving (a) 84th St. from Ft. Hamilton Parkway to Seventh Ave., (b) 72nd St. from Eighth Ave. to Ft. Hamilton Ave., (c) 55th St. from 15th to New Utrecht Ave., (d) First St. from Foster to 18th Ave., (e) 51st St. from 13th to 15th Ave., (f) 13th Ave. from 75th to 79th St., (g) Stone Ave. from Riverdale Ave. to Newport St., (h) Montgomery St. from Franklin to Bedford Ave., (i) East 17th St. from Ave. M to Ave. N, (j) East 13th St. from Kings Highway to Ave. U, (k) East 13th St. from Ave. O to Kings Highway, (l) Bay 23rd St. from 86th to Benson Ave., as follows: TOPEKA PAVING CO., INC., (a) $3603, (l) $4796; BROOKLYN ALCATRAZ ASPHALT CO., (b) $4392, (c) $8863, (d) $6899, (e) $6342, (f) $6082, (i) $4057, (j) $15,338, (k) $7568; SICILIAN ASPHALT PAVING CO., (g) $5276, (h) $4160. Noted May 13.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were received May 24 by Marcus M. Marks, Borough Pres., for improving (a) 24th St. from Sixth to 10th Ave., (b) 54th St. from Third to Lexington Ave., (c) 160th St. from Ft. Washington Ave. to a point 418 ft. west, (d) 30th St. from Ninth to 10th Ave., (e) 38th St. from First to Second Ave., as follows: Barber Asphalt Paving Co., (a) $20,132, (b) $3538, (c) $3877; Uvalde Asphalt Paving Co., (a) $28,810; (b) $4206, (c) $4587; Sicilian Asphalt Paving Co., (a) $10,320, (b) $3492, (c) $4322; Aztec Paving Co., (a) $18,186, (b) $3032, (c) $4509; Cleveland Trinidad Paving Co., (a) $24,050, (b) $4239, (c) $3980; Asphalt Construction Co., (b) $3474, (c) $3269; Fitzgerald & Brennen, (d) $12,973, (e) $12,122; P. J. Kearns Contracting Co., (d) $13,717, (e) $10,345; W. F. Fitzgerald, (d) $12,035, (e) $11,110. Noted May 20.

✚**Rochester, N. Y.**—The contract for paving the East Side Blvd. from the city line to Hudson Ave. has been awarded to WHITMORE, RAUBER & VICINUS, Rochester, at $35,558.

Bernardsville, N. J.—The Township Committee has voted to improve the road from the Coffee House to Van Dorn's Mill, at an estimated cost of $4000.

✚**Flemington, N. J.**—The Board of Chosen Freeholders has awarded a contract for the improvement of the Whitehouse-Lebanon Rd. with macadam to M. IRVING DEMAREST, Sewaren, at $16,802. Other bids were: J. L. LeCompte, $19,874; C. H. Winans Co., $20,313; Burk & Burnham, $21,878; William R. Moore, $24,905, and John Dorer, $26,535.

Jersey City, N. J.—Bids will be received until 2 p.m., June 10, by the Board of Commissioners, for repaving Montgomery St. from Grove to Brunswick and from Merselles St. to West Side Ave.

Jersey City, N. J.—Bids will be received until 3 p.m., June 10, by the Board of Chosen Freeholders of Hudson County for the improvement of the Newark Turnpike.

Newark, N. J.—Bids will be received until 3:15 p.m., June 17, for repaving Ferry St. from Westerly Terminus at Market St. to Merchant St., Clifton Ave. from Second St. to Abington Ave., Oraton St. from Delavan to Elwood Ave., and Richards St. from Ferry St. to Passaic Ave.

Washington, N. J.—The Board of Trade contemplates improving the road between Washington and Oxford, by paving with macadam.

West New York, N. J.—(Official)—Bids will be received until 8 p.m., June 8, by the Town Council, for improving 22nd St. from Bergenline Ave. to the Hudson County Blvd. J. L. Wolfe is Town Clk.

✚**New Castle, Penn.**—The contract for paving East Washington St. from Arlington Ave. to the city line has been awarded to M. J. SCANLON, at $16,093. Other bids were: Charles Staph, $17,400; Woods & Golder, $17,215; C. E. Kimbrough, $16,716; M. E. Miller, $16,908; Burns Bros., $16,577.

★**Philadelphia, Penn.**—(Official)—Bids will be received until noon, June 15, by the Bureau of Highways for continuing the improvement of the Northeast Blvd. from Rhawn St. northward, including branches.

Pittsburgh, Penn.—(Official)—Bids will be received until 10 a.m., June 10, by Hyatt M. Cribbs, Controller of Allegheny County, for improving a number of county roads.

Slatington, Penn.—Bids will be received until 7 p.m., June 7, for constructing approximately 5900 yd. of brick or concrete pavement on lower Main St. A. N. Kennel is Borough Secy. and Charles W. Grosshart, Allentown, is Borough Engr.

✚Annapolis, Md.—Contracts have been awarded for the application of 150,000 gal. of road oil to the roads in Caroline, Wicomico, Somerset, Worcester and Dorchester Counties to the UNITED GAS IMPROVEMENT CO., at $9690, and for oiling roads in Talbot, Kent, Queen Anne and Cecil Counties to the ATLANTIC REFINING CO., at $7069.

Baltimore, Md.—Press reports state that the Paving Commission plans to repave Camden St.

Eastville, Va.—Bids will be received until June 15 by G. T. Tyson, Clk., for the sale of $25,000 in bonds, the proceeds of which will be used for permanent road improvement.

✚Richmond, Va.—The Commissioners of Henrico County have awarded contracts for road construction as follows: 3.5 miles of gravel to T. W. MARTSON, Roxbury; 7.3 miles of gravel to BETTS & BOICE, Chestertown; 1.61 miles of bituminous macadam to LEWIS LAWSON, Norfolk; 1.69 miles macadam on Osborne Turnpike to COLVIN & GELSON, Culpepper; four miles of macadam to L. R. COLBERT, Massaponax.

Dobson, N. C.—Bods for $10,000 will be voted on at the election to be held June 8, the proceeds of which will be used for constructing roads in Long Hill Township, Surry County.

✚★Greenville, S. C.—(Official)—Contracts have been awarded for constructing asphalt and bituminous pavements to the WEST CONSTRUCTION CO., Chattanooga, Tenn.; brick and concrete pavements to SLATTERY & HENRY, Greenville, and for sidewalks to the GREENVILLE TILE CO., Greenville. Noted May 6, and under Greenville, N. C., in the issue of May 20.

Titusville, Fla.—An election will be held June 15 to vote on the question of issuing $150,000 in bonds, the proceeds of which will be used for constructing roads and bridges in Brevard County.

Selma, Ala.—Bids will be received until June 21 by P. H. Pitts, Probate Judge, for improving approximately 3½ miles of the Blablock and Uniontown Rd.

Natchitoches, La.—The citizens of Natchitoches Parish voted in favor of issuing $40,000 in bonds, the proceeds of which will be used for constructing roads.

Bristol, Tenn.—Press reports state that bids will be received until June 20 by W. H. Flynn, Comr. of Finance, for the sale of $10,000 in bonds, the proceeds of which will be used for improving streets.

Chattanooga, Tenn.—The City Commission will repave Market St. with wood blocks or asphalt. E. D. Bass is one of the Comrs.

Jasper, Tenn.—At a recent election the question of issuing $200,000 in bonds, the proceeds of which was to have been used for constructing roads in Jasper County, was defeated.

Covington, Ky.—(Official)—Bids will be received until 10 a.m., June 8, by the Fiscal Court of Kenton County for the reconstruction of the Lexington Pike State Aid Rd. John B. Dillon is County Clk.

✚Georgetown, Ky.—The contract for paving Main St. with asphalt has been awarded to the MERRILL CONSTRUCTION CO., Chattanooga, Tenn.

Louisa, Ky.—At a recent election the question of issuing $100,000 in bonds, the proceeds of which was to have been used for constructing roads, was defeated. Noted Apr. 15.

Maysville, Ky.—At a recent election the question of issuing $200,000 in bonds, the proceeds of which was to have been used for constructing roads in Mason County, was defeated.

Maysville, Ky.—(Official)—Bids will be received until 8 p.m., June 7, by the City Council for improving a number of streets. J. Wesley Lee is Mayor. Noted Mar. 18.

✚New Castle, Ky.—The contract for constructing a macadam pike between this city and Eminence has been awarded to the PHELPS-POST-GUYN CO., Lexington, at approximately $15,000. Noted May 13.

Tompkinsville, Ky.—The Commissioners of Monroe County recalled the election which was to have been held May 15 for the purpose of voting on the question of issuing bonds, the proceeds to be used for road construction. Noted Apr. 15.

Whitley City, Ky.—An election will be held July 10 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for constructing roads in McCreary County.

Cincinnati, Ohio—(Official)—Bids will be received until noon, June 25, by the Board of Commissioners of Hamilton County for improving the Compton Rd. from the Cincinnati and Hamilton Pike to the Carthage Pike, Springfield Township.

Columbus, Ohio—Bids will be received until noon, June 15, by George A. Borden, Dir. of Pub. Ser., for paving Grand Drive in Franklin Park.

Grand View Heights, Ohio—(Columbus post office)—Bids will be received until noon, June 29, by Thomas G. Constable, Clk., for paving and constructing sidewalks on Wyandotte Lane and Lincoln Rd.

Mt. Gilead, Ohio—Bids will be received until 11 a.m., June 25, by C. O. Higgins, Audr. of Morrow County, for improving and macadamizing Foust Rd. in Westfield Township.

Painesville, Ohio—(Official)—Bids will be received until noon, June 18, by the Board of Commissioners of Lake County for improving the Narrows-Center Rd. in Perry Township.

Penfield, Ohio—(Wellington post office)—Bids will be received until 1 p.m., June 10, by Ira M. Starr for improving and paving South Center Rd.

Rocky River, Ohio—Bids will be received until noon, June 15, by Frank Mitchell, Clk., for grading, draining and paving Frazier Drive.

Toledo, Ohio—Bids will be received until 10 a.m., June 28, by the Board of Commissioners of Lucas County for grading, draining and macadamizing Roads Nos. 63 and 64 in Monclova Township.

Indiana—(Official)—Bids will be received for road improvements in Indiana as follows: Brookville, until 1 p.m., June 7, by the Commissioners of Franklin County, for constructing a stone road in Highland Township; Greensburg, until 1 p.m., June 7, by the Commissioners of Decatur County for constructing a road in Washington Township; Portland, until 10 a.m., June 7, by the Commissioners of Jay County for constructing crushed stone roads in Wayne Township; English, until 2 p.m., June 7, by the Commissioners of Crawford County, for constructing stone roads in Sterling and Union Townships; Kentland, until 2 p.m., June 7, by the Commissioners of Newton County, for constructing a macadam road in Colfax Township; Franklin, until 2 p.m., June 7, by the Commissioners of Johnson County, for constructing a gravel road in Pleasant Township; Jeffersonville, until 10 a.m., June 7, by the Commissioners of Clark County, for constructing a macadam road in Silver Creek Township; Greencastle, until 2 p.m., June 7, by the Commissioners of Putnam County, for constructing a gravel road in Washington Township; Crawfordsville, until 10 a.m., June 8, by the Commissioners of Montgomery County, for constructing a concrete and stone road in Madison Township; Corydon, until 2 p.m., June 8, by the Commissioners of Harrison County, for constructing a macadam road on line between Harrison and Webster Townships; Fowler, until 1 p.m., June 9, by the Commissioners of Benton County, for constructing roads in Grant and Pine Townships; Laporte, until 10 a.m., June 10, by the Commissioners of Laporte County, for constructing roads in Kankakee and Noble Townships; Noblesville, until 10 a.m., June 15, by the Commissioners of Hamilton County, for constructing a road in Washington Township.

✚Indianapolis, Ind.—The contract for constructing a gravel road in Pike Township, Marion County, has been awarded to McKINSEY & JENKINS, Frankfort, at $11,571.

✚West Baden, Ind.—According to press reports, the West Baden Springs Co. has awarded a contract to L. R. FIGG CO., Louisville, Ky., for the construction of a macadam boulevard. The estimated cost of the work is $40,000.

✚Olney, Ill.—The contract for grading, building culverts and macadamizing portions of Whittle Ave. has been awarded to KEGAN BROS., Brazil, Ind., at $8324.

✚Peoria, Ill.—The contract for paving Moss Ave. from Elizabeth St. to Western Ave. has been awarded to JOHN W. BUSHNELL, at $18,936.

✚Springfield, Ill.—(Official)—Bids were received May 26 by the State Highway Commission and contracts awarded for road construction, as follows: St. Clair County, Section A, H. H. HALL CONSTRUCTION CO., East St. Louis, $16,900; Marshall County, Section B, AJAX CONSTRUCTION & ENGINEERING CO., Gary, Ind., $4395; Marshall County, Section C, CAPPERUNE & DEYO, Bradford, $5972.

Springfield, Ill.—(Official)—Bids will be received until 11 a.m., June 9, by the State Highway Commission for constructing roads in Livingston and Kane Counties. All cement is to be furnished by the State.

✚Kilbourn City, Wis.—The contract for paving Broadway has been awarded to GARVEY & WEYENSBERG CO., Kaukauna, Wis., at $10,152.

✚Lake Geneva, Wis.—(Official)—The contract for improving Main St. from Cook to Maxwell St. has been awarded to GEORGE WELCH, Beloit, at $5083. Other bids were: D. A. Thatcher, $5233; Birdsall Griffith Construction Co., $5642; Cullen Friestedt Co., $7434. Noted May 6.

Milwaukee, Wis.—Bids will be received until 2 p.m., June 7, by L. G. Widule, County Clk., for grading and paving three miles of Center Rd. H. J. Kuelling is County Highway Comr.

Oconto, Wis.—The City Council contemplates an expenditure of $19,000 for the improving a number of streets.

✚Storm Lake, Iowa—The contract for constructing 51,920 sq.yd. of reinforced-concrete pavement and 17,400 lin.ft. of curb has been awarded to the MOORE-SIEG CONSTRUCTION CO., Waterloo, at $17,502.

Duluth, Minn.—Bids will be received until 2 p.m., June 7, by O. Halden, Audr. of St. Louis County, for constructing 3½ miles of the Brevator Rd. and 5½ miles of the Hayes Rd.

St. Cloud, Minn.—Bids will be received until 3 p.m., June 15, by George G. Magnuson, City Clk., for constructing 10,300 yd. of concrete sidewalks.

✚Great Bend, Kan.—The contract for constructing 23,580 sq.yd. of concrete pavement has been awarded to WATTS & AMERMAN, Salina, at $55,400.

Central City, Neb.—Bids will be received until 7:30 p.m., June 14, by C. F. Newmyer, City Clk., for constructing concrete crossings, walks and approaches.

Norfolk, Neb.—Bids will be received until 5 p.m., June 7, by P. F. Stafford, City Clk., for constructing concrete walks, approaches and crossings.

Larimore, N. D.—Bids will be received until 7 p.m., June 7, by N. J. Powell, City Audr. for constructing sidewalks and curbs during 1915.

Hamilton, Mont.—Bids will be received until June 7 by F. E. Robbins, Clk. of Ravalli County, for grading 6000 lin.ft. of road near Stevensonville and a road on Hamilton Heights.

Laurel, Mont.—Plans have been completed for the improvement of Main St. The estimated cost of the work is $28,000.

Brunswick, Mo.—Press reports state that bids will soon be received for laying 20,000 sq.yd. of brick pavement. The Woodward Engineering Co., 901 Orear Leslie Bldg., Kansas City, Mo., is Engr.

St. Louis, Mo.—(Official)—Bids will be received until June 11 by the city for paving seven streets with vitrified brick. The total cost of the work is $60,000. E. R. Kinsey is Pres., Bd. of Pub. Ser.

Orange, Tex.—An election will be held June 19 to vote on the question of issuing $25,000 in bonds, the proceeds of which will be used for improving a portion of the Mansfield Ferry Rd.

✚Palmer, Tex.—A contract for constructing one mile of concrete sidewalks has been awarded to J. W. JARRETT, Waxahachie.

Port Lavaca, Tex.—At a recent election the citizens voted in favor of issuing $12,000 in bonds, the proceeds of which will be used for improving streets. Noted Apr. 1.

✚Richards, Tex.—A contract for constructing gravel roads has been awarded to the J. G. BROWNE CO., Houston, at $50,000.

✚Chehalis, Wash.—The contract for constructing 1½ miles of concrete road near Curtis has been awarded to the JACOBSON-BADE CO., Portland, at $15,458. Noted Apr. 8 and 22.

✚Ephrata, Wash.—(Official)—The contract for constructing seven miles of permanent highway near Wheeler has been awarded to W. G. MULLIGAN CO., Spokane, at $14,498. Other bids were: Worthen & Satterthwaite, $23,517; Mohr Construction Co., $17,906; Dunn & Hogan, $19,270; G. L. Stickler, $17,400. Noted Apr. 29.

✚Kalama, Wash.—The contract for constructing Permanent Highway No. 1-A has been awarded to N. P. WILLIS, Hoquiam, at $10,490.

Mt. Vernon, Wash.—Bids will be received until June 8 by the Commissioners of Skagit County for improving 2½ miles of the Montborn-McMurray Rd. A. L. Strong is County Engr.

Olympia, Wash.—Bids will be received until June 14 by the State Highway Commissioners for clearing, grading and draining about one mile of Inland Empire Highway across Wenas Creek, Kittitas and Yakima Counties and 7½ miles of Pacific Highway from Vancouver north in Clarke County.

Olympia, Wash.—Bids will soon be received for paving 14th, 15th, 17th, from Main to Columbia St. and Columbia St. from 14th to 17th St.

Seattle, Wash.—Bids were received for constructing Permanent Highway No. 9-A, as follows: Sloane Bros., Seattle, $21,259; Burnett Construction Co., Seattle, $21,712; Quigg Construction Co., Seattle, $21,875; R. R. Wheaten, Seattle, $22,060; William Martell, Seattle, $22,250; McGuire Bros., Seattle, $22,300; G. A. Banderet, Seattle, $22,900; Shephard & Cressman, Seattle, $22,900; West Coast Construction Co., Seattle, $22,900; P. Engstrand & Biddle Co., Seattle, $27,992; Ferch & Gass, Seattle, $28,240. Noted May 6.

Seattle, Wash.—Bids will be received until June 14 by the Commissioners of King County for the construction of the Redmond-Issaquah Rd. The estimated cost of the work is $60,000.

Wenatchee, Wash.—Bids will be received the latter part of June for the improvement of Chelan Ave., at an estimated cost of $11,000. Noted Feb. 4.

✚Tillamook, Ore.—The contract for the construction of four sections of road near Tillamook has been awarded to SANDBERG-LOGUS, Portland, at $11,000.

Calexico, Calif.—All bids received for improving Imperial Ave. and other streets have been rejected. The work will be readvertised.

East San Diego, Calif.—E. A. McAlpine, San Diego, at $14,343, submitted the lowest bid for improving Swift Ave.

✚Los Angeles, Calif.—The contract for improving Manhattan Pl. from Third St. to Wilshire Blvd. has been awarded to GEORGE R. CURTIS, 552 South St., Louis St., at $20,190.

✚Richmond, Calif.—A contract for street work has been awarded to GEORGE W. CUSHING, at $18,023.

✚Santa Barbara, Calif.—The contract for paving Mason, Helena and Anacapa St. has been awarded to A. L. PENDOLA, at $9012.

London, Ont.—(Official)—Bids will be received until 4 p.m., June 9, by the City Clerk for constructing approximately 18,000 sq.yd. of asphalt pavement on concrete base. H. A. Brazier is City Engr.

✚New Westminster, B. C.—The contract for paving 12th St. has been awarded to the COLUMBIA BITULITHIC CO., New Westminster, at $13,668.

INDUSTRIAL WORKS

✚Augusta, Maine—Lewis A. Crossett, North Abington, Mass., has awarded the contract for the construction of a four-story, 44x250-ft. brick factory on Williams St., to the AUGUSTA DEVELOPMENT CO.

Portland, Maine—The New England Cold Storage Co. will build a five-story, 58x100-ft. brick addition to its plant on Commercial and Maple St.

Sanford, Maine—The Sanford Mills contemplates the construction of a three-story, 135x169-ft. factory, and a four-story, 60x374-ft. factory. The old buildings will be razed.

✚Burlington, Vt.—(Official)—The Queen City Cotton Co. has awarded the contract for the construction of a two-story, 48x323-ft. addition to its plant to the McNALLY BLDG. CO., Gardner, Mass. F. P. Sheldon & Sons, Providence, R. I., is Arch.

Boston, Mass.—The Victor Typewriting Co., 812 Greenwich St., New York, N. Y., will build a four-story, 70x750-ft. plant on Beacon St., to cost $400,000.

Chicopee, Mass.—Work will soon start on the construction of a 36x110-ft. addition to the plant of A. G. Spalding & Bros. The estimated cost is $30,000.

Chicopee Falls, Mass.—The Fisk Rubber Co. will build a six-story, 60x160-ft. brick and stone office building; a two-story service station; and a six-story, 110x810-ft. reinforced-concrete storehouse at Oak and Grove St. George B. Allen, Hartford, Conn., is Engr.

Fitchburg, Mass.—The Parkhill Mfg. Co. plans the construction of a four-story brick and steel dyeing plant. Knight C. Richmond, Providence, R. I., is Arch.

✚Framingham, Mass.—The contract for the construction of a brick carbarn for the Boston & Worcester St. Ry. Co. has been awarded to the J. W. BISHOP CO. The estimated cost is $100,000.

Lowell, Mass.—The United States Cartridge Co. will build a 50x350-ft. addition to its plant on Lawrence St., to cost $60,000.

Lowell, Mass.—The Appleton Co. will build a 100x200-ft. storehouse.

✚Springfield, Mass.—The contract for the construction of a one-story, 146x198-ft. brick garage on Columbia Terrace for the Stoddard Motor Car Co., has been awarded to EDWARD RADDING, 293 Bridge St. B. E. Geckler is Arch.

✚Springfield, Mass.—The Van Norman Machine Tool Co. has awarded the contract for the construction of a three-story, 51x88-ft. factory to L. S. WOOD, 12 Stockbridge St. The estimated cost is $12,000.

Worcester, Mass.—The H. H. Bigelow Estate will build an eight-story, 100x140-ft. industrial building on Mechanics St. E. A. Simpson, 88 Broad St., Boston, Mass., is Arch.

✚Worcester, Mass.—JOHN J. POWER has been awarded the contract for the construction of a $15,000 garage for the Logan, Swift & Brigham division of the United States Envelope Co. John P. Kingston is Arch.

Bridgeport, Conn.—The Bridgeport Brass Co. has purchased two 50x100-ft. lots, on which it contemplates the construction of storage warehouses.

Bridgeport, Conn.—The American & British Mfg. Co. plans the construction of additions to its plant.

✚Hartford, Conn.—The Hartford Cement Co. has awarded the contract for the construction of a two-story, 64x90-ft. brick warehouse on Homestead Ave., to A. J. DESSCHAMPS.

Hartford, Conn.—The Jacobs Mfg. Co. will build a three-story, 42x110-ft. brick factory on Rowe Ave. and Park St. Greenwood & Moer, 847 Main St., is Arch.

New Haven, Conn.—The Winchester Repeating Arms Co. will build a one- and two-story, 60x260-ft. concrete carpenter shop on Sheffield Ave., to cost $35,000. L. W. Robinson is Arch.

New Haven, Conn.—The New Haven Pulp & Board Co. will build a factory on its recently acquired site on Railroad Ave.

New London, Conn.—Bids will soon be received for the construction of a one-story, 75x220-ft. brick and reinforced-concrete carbarn on Montauk Ave., for the Connecticut Co. Cudworth, Woodworth & Thompson, Norwich, Conn., is Arch.

Niantic, Conn.—The Thames Dyeing & Bleaching Co. will build two factories, 80x150 ft. each, to replace the Norwich plant, which was recently destroyed by fire. John C. Geary is Pres.

Waterbury, Conn.—The Waterbury Farrell Foundry & Machine Co., Bank St., will build a three-story, 50x150-ft. brick and steel addition to its plant. Wilfred E. Griggs, 111 West Main St., is Arch.

✚Waterbury, Conn.—The Scoville Mfg. Co., 99 Mill St., has awarded the contract for the construction of a one-story, 320x600-ft. brick and reinforced-concrete factory at Hamilton Ave. and Silver St., to the SPERRY ENGINEERING CO., 82 Church St., New Haven, Conn. H. L. Thompson, 57 North Main St., is Arch. Noted May 6.

Waterbury, Conn.—Jenks & Balton, Arch., Providence, R. I., is preparing plans for a one- and two-story, 100x200-ft. brick and steel machine shop for the Waterbury Tool Co. Bids will be received about June 10.

✚Poughkeepsie, N. Y.—(Official)—Smith Bros. has awarded the contract for the construction of a two-story, fireproof building to KINGSTON & CAMPBELL. W. W. Smith, 2nd, is Mgr. Noted May 20.

Rochester, N. Y.—Samuel Sloan & Co. will build a one-story, 23x144-ft. reinforced-concrete warehouse on Exchange St., to cost $12,000.

✚Rochester, N. Y.—(Official)—JOHN E. HETZLER, 1 Masseth St., has been awarded the contract for the remodeling of the malt house of the Genesee Brewing Co. Mortensen & Co., 405 Lexington Ave., New York, N. Y., is Arch. Noted May 27.

Silver Creek, N. Y.—The H. J. Heinz Co. contemplates the construction of a salting plant.

✚Ardmore, Penn.—The Auto Car Co. has awarded the contract for the construction of a three-story, 60x96-ft. brick and concrete addition to its factory to WILLIAM R. DOUGHERTY. Stearns & Castor is Arch.

✚Hazleton, Penn.—(Official)—Ballinger & Perrot, Arch., 17th and Arch St., Philadelphia, Penn., and Marbridge Bldg., New York, N. Y., has awarded the contract to the UNITED FIREPROOFING CO., 1133 Broadway, New York, N. Y., for the construction of a one-story, 89x192-ft., brick and reinforced-concrete weave shed for the Duplan Silk Co. Noted May 20.

New Castle, Penn.—The Carnegie Steel Co. will build two hot blast stoves to cost $65,000.

New Kensington, Penn.—The United States Aluminum Co. will build an eight-story, 80x130-ft. warehouse at the foot of Tenth St. James S. Murray is Pur. Agt.

✚Philadelphia, Penn.—(Official)—The Pennsylvania Laundry Co., 44rd St., has awarded the contract for the construction of a one-story, 46x170-ft. garage and stable to ARMSTRONG & LATTA, Land Title Bldg., at $11,400. Other bids were: Charles Gilpin, $11,490; Fred A. Havens & Co., $11,895; H. H. Wehmeyer, $11,944; Lam Building Co., $12,100; Herman Voigt, $12,300. William Lowenthal, 1208 Chestnut St., is Arch. Noted May 20.

✚Philadelphia, Penn.—Charles J. Clarke has awarded the brick contract to WILLIAM R. CHAPMAN, 15th and Washington Ave., for the construction of a two-story, 123x180-ft. brick and reinforced-concrete warehouse at Washington and Delaware Ave. W. Copeland Furber, 418 Walnut St., is Engr.

Philadelphia, Penn.—Bids are being received for the construction of a six-story, reinforced-concrete brick and terra cotta factory at 25th and Locust St., for A. H. & F. H. Lippincott, Inc., 24th and Locust St. M. H. Dickinson, Empire Bldg., is Arch.

Philadelphia, Penn.—Bids are being received for the construction of an eight-story, 48x120-ft. reinforced-concrete warehouse at 253 North Broad St., for Gomery-Schwartz Motor Car Co., 253 North Broad St. Charles E. Oelschlager, Harrison Bldg., is Arch.

+Pittsburgh, Penn.—The Columbia Ice Co. has awarded the contract to FETZER & WINGER, Bessemer Bldg., for the construction of a one-story building on Hamilton Ave., to cost $25,000. Noted Apr. 29.

Wilkes-Barre, Penn.—The Duplan Silk Co. will build a two-story, 161x240-ft. building. Noted Apr. 8.

Zelienople, Penn.—A. G. Nicholtz, Main St., contemplates the construction of a brick and hollow-tile garage, to cost $10,000.

Norfolk, Va.—Isaac Fass will build a two-story, 40x90-ft. brick cold-storage plant to cost about $25,000.

Huntington, W. Va.—Plans are being prepared by C. D. Cooley Co., Arch., Century Bldg., Pittsburgh, Penn., for the construction of a three-story, 125x150-ft. creamery and office building for the Wilson Creamery Co.

Cleveland, Ohio—The Neighbors Motor Co., 1918 Euclid Ave., plans to construct a building at Chester Ave., N. E., and East 30th St. Estimated cost, $50,000. H. F. Neighbors is Pres.

Cleveland, Ohio—The Cleveland White Metal Co., recently incorporated, plans the construction of a $75,000 factory on the Belt Line R.R. E. P. Strong, 919 Society for Savings Bldg., is interested.

Hartford City, Ind.—(Official)—The American Window Glass has halted plans for the contemplated construction work. Noted May 27.

Seymour, Ind.—The Seymour Woolen Mills plans the construction of an 80x160-ft. weaving shed, and a 60x60-ft. dyehouse, both two stories and of brick and steel construction.

Detroit, Mich.—The Russell Motor Axle Co. will start work soon on the construction of a 120x120-ft. addition to its plant at North Detroit.

Chicago, Ill.—The International Tailoring Co., 212 South Market St., will build a ten-story, 116x125-ft. building at Jackson Blvd. and Peoria St., to cost about $250,000.

Oakland, Calif.—(Official)—Bids will be received until June 15 by the Pacific Coast Shredded Wheat Co., F. M. Clough, Secy. and Treas., for the construction of a plant to include a factory, boiler house, scale house, a 175-ft. chimney, transformer house, and wheat elevators. The estimated cost is $250,000. J. S. Bogart is Engr. Noted May 13.

+San Francisco, Calif.—(Official)—The Lewis Packing Co., 950 Columbus Ave., has awarded the contract for the construction of a three-story, reinforced-concrete plant to ROUNDS & SPIVOCK. The estimated cost is $25,000. D. Kerns is Arch. Neal Harris is Mgr. Noted May 13.

FEDERAL GOVERNMENT

Repairs to Wharf—Boston, Mass.—Bids will be received until 11 a.m., June 12, by H. R. Stanford, Ch. of Bureau, Yards and Docks, Navy Dept., Washington, D. C., for making repairs to pier No. 5 at the Navy Yard, Boston.

★Rebuilding Basin Walls—Block Island, R. I.—Bids will be received until noon, June 29, by Col. John Millis, Newport, for rebuilding basin walls and repairing breakwater and harbor walls at harbor, Block Island.

★Dredging—New York, N. Y.—Bids will be received until noon, June 28, at the U. S. Engineer Office, Room 707, Army Bldg., New York, for dredging in Newtown Creek.

Buildings—New York, N. Y.—Bids will be received until 11 a.m., June 26, by H. R. Stanford, Ch. of Bureau, Yards and Docks, Washington, D. C., for building three one-story brick buildings 24x72-ft. with wings for contagious diseases at the naval hospital reservation, Navy Yard, New York.

★Breakwater—Oswego, N. Y.—Bids will be received until 11 a.m., June 23, at the U. S. Engineer Office, Buffalo, for constructing a concrete superstructure on the outer breakwater at Oswego Harbor.

★Coast Guard Station—Oswego, N. Y.—Bids will be received until 2 p.m., June 15, by Capt. E. P. Bertholf, U. S. Coast Guard, Washington, D. C., for constructing a coast guard station at Oswego.

Dock Repairs—West Point, N. Y.—Bids will be received until noon, June 30, by the Quartermaster, West Point, for making repairs and reconstructing the south dock and ferry slip.

Power Plant Equipment—Indian Head, Md.—Bids will be received until 11 a.m., July 3, by H. R. Stanford, Ch. of Bureau, Yards and Docks, Washington, D. C., for building an extension to the present building and furnishing and installing equipment in the boiler plant at the Naval Proving Ground, Indian Head.

Railroad Car—Washington, D. C.—Bids will be received until 2 p.m., June 11, by D. F. Houston, Secy., Dept. of Agriculture, Washington, D. C., for furnishing one railroad car.

★Paving—Washington, D. C.—Bids were received May 21 by the Commissioners of the District of Columbia for laying standard asphalt pavement and asphalt block paving for the fiscal year ending June 30, 1916, (a) laying standard asphalt paving (2½-in. asphalt surface, 2-in. binder before compression) upon 6-in. concrete base; (b) laying vitrified brick block with 6-in. concrete base, (c) laying standard asphalt paving, as in (a) on 5-in. concrete base, (d) laying vitrified block on 5-in. concrete base, (e) 2-in. asphalt block paving on 6-in. concrete base, (f) 2-in. asphalt block paving on 5-in. concrete base, (g) allowance for Occoquan stone furnished by District Government, as follows: Eastern Paving Co., Philadelphia, Penn., (a) $1.69, (b) $1.34, (c) $1.64, (d) $2.29, (g) $0.75; Warner-Quinlan Asphalt Co., Syracuse, N. Y., (a) $1.49, (b) $1.23, (c) $1.43, (d) $1.15, (g) $0.90; Union Paving Co., Baltimore, Md., (a) $1.67; (b) $1.33, (c) $1.59, (d) $1.25; (g) $0.84; Cranford Paving Co., Washington, D. C., (a) $1.66, $1.77, (b) $1.40, (c) $1.62, $1.67, (d) $1.62, (g) $0.70; Washington Asphalt Block & Tile Co., Washington, D. C., (e) $1.91, (f) $1.61, (g) $0.80. Noted Apr. 29.

Sewer—Washington, D. C.—One bid was received May 25 by the Commissioners of the District of Columbia for the construction of Section 7 of Rock Creek main interceptor, in Rock Creek Park, crossing Rock Creek. Warren F. Brenizer Co., 141 Q St., N. W., Washington, ordinary excavation, $3 concrete masonry "B", $10, vitrified brick masonry, $25, sewer brick maconry, $15, laying 54-in. c.-i. pipe crossing Rock Creek, $27.50 per lin.ft.

★Sulphate of Alumina—Washington, D. C.—Bids will be received until noon, June 26, by the U. S. Engineer Office, Room 305 Southern Bldg., Washington, for furnishing 300 tons, 25% more or less, sulphate of alumina.

★Coal—Wilmington, N. C.—Bids will be received until noon, June 28, at the U. S. Engineer Office, Wilmington, for furnishing 13,000 tons of bituminous coal.

★Cement—Wilmington, N. C.—Bids were received May 26 by Maj. H. W. Stickle for portland cement as follows: Alpha Portland Cement Co., Easton, Penn., (a) $32,700, (b) $45,980, (c) $23,100; Grant Portland Cement Co., Philadelphia, Penn., (a) $37,620, (b) $49,059, (c) $25,960; Coplay Cement Mfg. Co., Philadelphia, Penn., (a) $25,740; Caralina Portland Cement Co., Charleston, S. C., (a) $28,160, (c) $29,900; Atlas Portland Cement Co., New York, N. Y., (b) $48,400, (c) $25,300 and the Lehigh Portland Cement Co., Allentown, Penn., (a) $37,400, (b) $48,840 and (c) $25,300. Noted Apr. 29.

★Crushed Stone—Wilmington, N. C.—Bids were received May 26 by Maj. H. W. Stickle for furnishing crushed stone as follows: C. P. Lathrop & Co., Richmond, Va., $43,492; Virginia Sand & Gravel Corporation, Norfolk, Va., $39,260; S. E. Morris Co., Norfolk, Va., $45,571; Robert G. Lassiter, Raleigh, $41,487 or $40,503 and Weston & Brooker Quarry Co., Columbia, S. C., $42,376. Noted Apr. 29.

+Post Office—Laurel, Miss.—The contract has been awarded to JOHN G. UNKEFER & CO., Minerva, Ohio, at $68,050, for constructing a post office at Laurel. Noted Apr. 15 and May 27.

Levee Work—Vicksburg, Miss.—Bids will be received until 11 a.m., June 5, by the Third Mississippi River District, post-office box 404 Vicksburg, for constructing about 660,000 cu.yd. of levee.

★Breakwater—Marblehead, Ohio—Bids were received May 20 for constructing a breakwater at the Coast Guard station, Marblehead as follows: Coast & Lakes Contracting Corporation, 41 Broad St., New York, N. Y., $8350; Great Lakes Dredge & Dock Co., Cleveland, $13,038; Freyensee Bros., Sandusky, $10,655 and Lake Shore Contracting Co., Cleveland, $8100. Noted Apr. 22.

★Excavation—Detroit, Mich.—Bids will be received until noon, June 15, by Lieut.-Col. Mason M. Patrick, Federal Bldg., Detroit, for excavation of earth and rock at the U. S. power plant tail race, St. Marys River.

★Lock Improvement—Sault Ste. Marie, Mich.—Bids were received May 24 by Lieut.-Col. Mason M. Patrick, Detroit, for lock improvement at the Fourth Lock as follows: Oscar Daniels Co., Unity Bldg., Chicago, Ill., $1,010,480; Maryland Dredging & Contracting Co., Fidelity Bldg., Baltimore, Md., $1,028,880; Greiling Bros. Co., Green Bay, Wis., $1,048,180; Grant Smith & Co., St. Paul, Minn., $1,143,510; T. A. Gillespie Co., Pittsburgh, Penn., $1,146,190; James O. Heyworth, Harvester Bldg., Chicago, Ill., $1,162,849; Cook Construction Co., Gilfillan Bldg., St. Paul, Minn., $1,178,550; Thomas Harmon Co., Railway Exchange Bldg., St. Louis, Mo., $1,197,650; Larkin & Sangster, Seneca Falls, N. Y., $1,231,060; Dravo Contracting Co., Pittsburgh, Penn., $1,241,820; Bates & Rogers Construction Co., Old Colony Bldg., Chicago, Ill., $1,261,420; Great Lakes Dredge & Dock Co., Chicago, Ill., $1,289,780 and Cleveland & Sons Co., Brockport, N. Y., $1,410,820. Noted Apr. 15 and 29.

★Steel—Sault Ste. Marie, Mich.—Bids will be received until noon, June 30, at the U. S. Engineer Office, Detroit, Mich., for furnishing about 325 tons of steel for the Fourth lock, Sault Ste. Marie.

Post Office—Beardstown, Ill.—Bids will be received until 3 p.m., July 9, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for constructing complete the U. S. post office at Beardstown.

Post Office—La Salle, Ill.—Bids were received May 26, by the Acting Supervising Architect, Treasury Dept., Washington, D. C., for the construction of a post office at La Salle, as follows: Rogers & Kaiser, Chicago, (a) $75,767, (b) $78,767; Westchester Engineering Co., White Plains, N. Y., (a) $73,900, (b) $80,000; George A. Shaul, Seneca, Kan., (a) $71,958; Callahan-Mandl Co., Chicago, (a) $68,611, (b) $70,000; Nicholas Miller, Massillon, Ohio, (a) $74,194, (b) $75,298; George W. Stiles Construction Co., Chicago, (a) $69,342; Thomas W. Cissel, Wooster, Ohio, (a) $72,767, (b) $75,767; McManus & Tarnoski, St. Paul, Minn., (a) $74,800; James Devault, Canton, Ohio, (a) $79,600, (b) $84,000; Colonial Construction & Supply Co., Charlottesville, Va., (a) $69,398, (b) $73,259; King Lumber Co., Charlottesville, Va., (a) $79,800, (b) $90,000; Charles W. Gindele Construction Co., Chicago, (a) $67,000, (b) $71,800; J. P. Cullen Construction Co., Janesville, Wis., (a) $73,849; Clarke Construction Co., Danville, (a) $71,817, (b) $75,469; Barnes Bros., Logansport, Ind., (a) $71,910, (b) $76,915; W. G. Carter Co., Chicago, (a) $74,459, (b) $78,459; Hiram Lloyd Building & Construction Co., St. Louis, Mo., (a) $73,191, (b) $76,191; R. P. Farnsworth & Co., Owensboro, Ky., (a) $75,000, (b) $79,000; W. H. Fissell & Co., New York, N. Y., (a) $70,656, (b) $75,656; Balkin Construction Co., Chicago, (a) $66,853 and Frank L. Johnson & Co., Duluth, Minn., (a) $77,996. Noted Apr. 22.

+Building—Milwaukee, Wis.—The contract for the construction of a coast guard station at Milwaukee, has been awarded to H. J. PAYNES, Milwaukee, at $24,800. Noted May 13.

Remodeling Post Office—Des Moines, Iowa—Bids will be received until 3 p.m., July 8, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for repairing and remodeling the U. S. post office and court house at Des Moines. Noted Apr. 1 and 22.

★Reclamation Work—Great Falls, Mont.—Bids will be received until 2 p.m., July 1, by A. P. Davis, Ch. Engr., U. S. Reclamation Service, Great Falls, for constructing canals on the Sun River Project.

✚★**Dike and Revetment**—Glasgow, Mo.—The contract has been awarded to DeWITT & THOBE, Glasgow, at $12.95 per lin.ft. for dike and $8.34 for revetment. Noted Apr. 29.

★**Dike**—Napoleon, Mo.—Bids were received May 20 by Lieut.-Col. Herbert Deakyne, Kansas City, for constructing about 5900 ft. of timber dike on the Missouri River from DeWitt & Thobe, Glasgow, at $13.48 per lin. ft., and Norton Bros. & Kennedy, Kansas City, at $13.98 per lin.ft., Noted Apr. 29.

Levee Work—St. Louis, Mo.—Bids will be received until 11 a.m., June 17, by the Secretary, Mississippi River Commission, International Life Bldg., St. Louis, for constructing about 175,000 cu.yd. of earthwork in the East Side levee district.

Radio Towers—Point Isabel, Tex.—Bids were received May 29 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of two 300-ft. radio towers at the U. S. Naval Radio Station, Point Isabel, as follows: (a) price per lb. of structural steel erected, (b) foundations: American Gas Accumulator Co., Philadelphia, Penn., (a) $0.0661; G. H. Williams, Erie, Penn., (a) $0.08644; Llewellyn Iron Works, Los Angeles, Calif., (a) $0.0616; Pittsburgh-Des Moines Steel Co., Pittsburgh, Penn., (a) $0.057, (b) $5660; Henry Monk, Pensacola, Fla., (a) $0.0675, (b) $8680; Friedman & Rendle, Brownsville, Tex., (b) $6009; S. S. Dodds, San Benito, Tex., (b) $6240; F. H. Williams & C. S. Hobbs, Brownsville, Tex., (b) $13,214; Blodgett Construction Co., Galveston, Tex., (b) $7970; Milwaukee Bridge Co., Milwaukee, Wis., (a) $0.0584; Chicago Bridge & Iron Co., Chicago, Ill., (a) $0.0537; Midland Bridge Co., Kansas City, Mo., (a) $0.0544; (b) $5600, (all or none); Nashville Bridge Co., Nashville, Tenn., (a) $0.0598; Penn Bridge Co., Washington, D. C., (a) $0.063; American Bridge Co., Baltimore, Md., (a) $0.0394, not erected. Noted Apr. 29.

Building—Chilocco, Okla.—Bids were received May 20 by the Commissioner of Indian Affairs, Washington, D. C., for constructing an addition to the school at the Chilocco Indian School as follows: John M. Fuller, Winfield, Kan., $10,965; John O. Brown, Arkansas City, Kan., $11,519; Hetzel & Winget, Los Angeles, Calif., $16,800.

✚**Building**—Choctaw, Okla.—Contracts have been awarded for constructing buildings at the Choctaw Sanatorium as follows: Frame hospital, W. D. LOVELL, Minneapolis, Minn., $34,250; frame quarters, no award; laundry, no award; power house, HORTON & SMITH, Montezuma, Ia., $5424; water and sewer system, to HORTON & SMITH, $7798; electric lighting, PEABODY ELECTRIC CO., Muskogee, $1532; 20 camp quarters, no award. Noted Apr. 1.

★**Canal Work**—Payson City, Utah—The low bidder for the excavation for a canal at Payson City was the Morrison-Knudson Co., Boise, Idaho, at $38,950. Noted Apr. 22.

★**Bridge**—Topock, Ariz.—Bids will be received until 2 p.m., June 19, by Cato Sells, Comr. of Indian Affairs, Washington, D. C., for constructing a steel highway bridge across the Colorado River. See item under "Bridges," Needles, Calif.

★**Post Office**—Everett, Wash.—The contract has been awarded to HENRIKSON & CO., Alaska Bldg., Seattle, at $111,519, for constructing the U. S. post office at Everett. Noted Feb. 18 and Mar. 25.

Torpedo Storehouse—Keyport, Wash.—Bids were received May 29 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of a torpedo storehouse for the Naval Station, Keyport, Wash., as follows: Hans Pedersen, $43,300; Eckmann & Mowat, $42,650; Chamberlain Construction Co., $42,945; Sound Construction & Engineering Co., $40,500; Martin & Dugan, $36,513; A. W. Quist Co., $46,-207; Finne & Jarde, $42,185; Pearson Construction Co., $37,-925; Butler Contracting Co., $39,900; Charles H. Schaar, $42,-240; Burke Ward, $40,990; Erickson & Larson, $37,246; Pacific States Construction Co., $42,790; Above bidders are of Seattle, Wash., W. N. Concannon, San Francisco, Calif., $47,373; Hc-Hugh & Creelman, Tacoma, Wash., $45,950; Lent & Benbennick, Bremerton, Wash., $44,060 and John Wallin, Tacoma, Wash., $45,653. Noted May 6.

Cement—Seattle, Wash.—Bids will be received until 9 a.m., June 10, by Col. George B. Davis, Depot Quartermaster's Office, Seattle, for furnishing and delivering at Seattle or Honolulu, H. T., 12,000 bbl. of American portland cement.

Sewers—San Diego, Calif.—Bids were received May 29, by the Bureau of Yards and Docks, Nevy Dept., Washington, D. C., for the sewer and water systems at the Naval Radio Station, San Diego, Calif., as follows: Mesmer & Rice, Los Angeles, $12,513; Holland Construction Co., San Diego, $12,882; C. H. Julian, San Diego, $13,924; Eggert & Eukropina, Los Angeles, $16,420; Earling Rohde, San Diego, $15,665; Isabell Construction Co., San Diego, $12,885; Power Equipment Co., San Francisco, $10.650. Noted Apr. 15 and May 20.

Boiler House and Boilers—San Francisco, Calif.—Bids will be received until noon, June 22, at the office of the Supervising Superintendent of Construction, Room 403, U. S. Post Office Bldg., for the erection of an addition to the boiler house and the installation of a new boiler at the U. S. Marine Hospital Station. J. W. Roberts is Superv. Supt.

Miscellaneous Supplies—Panama — Bids will be received until 10:30 a.m., June 5, by Maj. F. C. Boggs, Gen. Pur. Agt., Panama Canal, Washington, D. C., for furnishing miscellaneous supplies for the Panama Canal.

Miscellaneous Supplies—Panama — Bids will be received until 10:30 a.m., June 7, by Maj. F. C. Boggs, Gen. Pur. Agt., Panama Canal, Washington, D. C., for furnishing miscellaneous supplies for the Panama Canal.

Miscellaneous Supplies—Panama—Bids will be received until 10:30 a.m., June 11, by Maj. F. C. Boggs, Gen. Pur. Agt., Panama Canal, Washington, D. C., for furnishing miscellaneous supplies.

MISCELLANEOUS

Dredging—Boston, Mass.—The following bids were received on May 25 by the State Harbor and Land Commission for dredging at Menamsha Harbor: John H. Letteney, Boston, 43c. per cu.yd. (earth); $10 per cu.yd. (boulder); John R. Burke, Boston, 38.7c.; $5. For dredging at Gloucester Harbor: John H. Gerrish, Boston, 49c. per cu.yd. (earth); 49c. per cu.yd. (small boulders); $10 per cu.yd. (large boulders); Bay State Dredging Co., Boston, 28c.; $6; $13; Eastern Dredging Co., Boston, 33c.; $9.50; $19.97; Charles M. Cole, Fall River, 35c.; 35c.

Earthwork and Dredging—Boston, Mass.—Bids will be received until June 9 by the State Harbor and Land Commissione for the construction of an earth dike at Holyoke, also for dredging 9500 cu.yd. material at Mill River, Gloucester. William F. Williams is Ch. Engr.

Fire Station and Motor Fire Apparatus—Palmer, Mass.—The city plans to spend $10,000 for the construction of a fire station and for the purchase of motor fire apparatus.

★**Greenhouses**—Albany, N. Y.—(Official)—Bids will be received by the Trustees of Public Buildings, Capitol Bldg., until 4 p.m., June 15, for the construction of greenhouses at the New York State Executive Mansion. Lewis F. Pilcher, Capitol, is State Arch.

Canal Work—Albany, N. Y.—A bill providing for the issue of $27,000,000 in canal bonds has been approved by Governor Whitman. The issue will be submitted to the voters at the next election.

✚**Subway**—Buffalo, N. Y.—The contract for the construction of a subway under the Pennsylvania R.R. at Lord and Smith St. has been awarded to the LATHROP, SHEA & HENWOOD CO., Ellicott Sq. Bldg., Buffalo, at $71,988. Noted Apr. 29.

★✚**Wharf**—Dunkirk, N. Y.—The contract for the construction of a public wharf has been awarded to the D. L. TAYLOR CO., INC., Medina, at $67,844. Noted Apr. 22.

Pier—New York, N. Y.—(Borough of Brooklyn)—(Official) —Bids will be received by R. A. C. Smith, Comr. of Docks and Ferries, Pier A, Battery Pl. (Borough of Manhattan), until noon, June 11, for building a pier at the foot of 29th St., Brooklyn.

Subway Station—New York, N. Y.—(Borough of Brooklyn) —The following are the unofficial bids received by the Public Service Commission, 154 Nassau St. (Borough of Manhattan), for the construction of the station finish of the Fourth Ave. subway, a part of the Broadway-Fourth Ave. Rapid Transit R.R. from center of Flatbush Ave. extension to a point on Fourth Ave., about 150 ft. south of 42d St.: C. L. Dooley, Inc., $45,950; Marble Arch Co., $42,000; Station Construction Co., $40,689; Charles Meade Co., $42,219; Simon Russek, $41,361; D. C. Serber, 1123 Broadway, $40,383. Noted May 27.

★✚**Subway**—New York, N. Y.—(Borough of Brooklyn)—The Public Service Commission has awarded the contract for the construction of Section No. 2 of Route No. 49, a part of the Culver Rapid Transit R.R. in Brooklyn, to the OSCAR DANIELS CO., Woolworth Bldg., at $863,775. Noted Apr. 29 and May 20.

✚**Motordrome**—New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract for constructing the large two-mile motordrome for the Sheepshead Speedway Corporation, has been awarded to the COAST & LAKE CONTRACTING CORPORATION, 41 Broad St., New York, N. Y. This contract also includes the construction of a grandstand. The steel contract was placed with the LACKAWANNA STEEL CO., Lackawanna, N. Y. About 4000 tons of material is involved. Work has already started and is under the supervision of Blaire H. Miller, Engr. Henry F. Hornbostel, 63 William St., is Arch. Everard Thompson, Whitehall Bldg., New York, N. Y., is Gen. Mgr. Noted Apr. 29.

Trailers—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids received by Marcus M. Marks, Borough Pres., for furnishing and delivering eight trailers were from George B. Marx, 198 Newell St. (Borough of Brooklyn), at $6320, and Watson Wagon Co., at $6538. Noted May 20.

✚**Steamers**—New York, N. Y.—The contract for the construction of three steamers for the Clyde Steamship Co., New York, has been awarded to the GREAT LAKES ENGINEERING WORKS, Detroit, Mich., at an estimated cost of $600,000.

✚**Improvements to Coal Pockets**—New York, N. Y.—(Borough of Manhattan)—(Official)—Plans are being prepared by Charles Houchin Higgins, Engr., 30 Church St., for coal hoisting machinery, screens, head house, rescreening pockets, office and scales, in connection with coal handling plans, to be erected by O. H. Perry & Son, Inc., at foot of East 19th St. The contract for the main pockets has been recently awarded to GENERAL CONTRACTING & ENGINEERING CO., 29 Broadway, New York.

Improvements to Market—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by Charles H. Higgins, Engr., 30 Church St., New York, until June 14, for installing fixtures and constructing stalls, etc., at the Washington market. The work included is that part to be done by the tenants, before moving into the remodeled market.

Lamp Posts—New York, N. Y.—(Borough of Manhattan)—(Official)—The following are the bids received by the Department of Water Supply, Gas and Electricity, Municipal Bldg., for furnishing and delivering 1500 c.-i. lamp posts, with steel shafts: William Messer Co., $89,580; Mt. Carmel Iron Works, $54,750; J. L. Mott Iron Works, 118 Fifth Ave., New York, $26,580; Western Electric Co., $47,250; Morris Iron & Steel Co., $31,740 (informal); J. Fox & Co., $29,070.

Fire Escapes—New York, N. Y.—(Borough of Manhattan)—The Board of Estimate has authorized the issue of $10,000 in corporate stock for the erection of fire escapes on the Research Laboratory Bldg. and the Willard Parker Hospital.

+Flood Protection—Rochester, N. Y.—(Official)—The following are the bids received by the Department of Engineering for deepening the Genesee River from the Central Ave. Dam to a point about 200 ft. south of the Erie Canal Aqueduct: LATHROP, SHEA & HENWOOD CO., $315,200 (awarded contract); R. T. Ford Co., $319,200; M. H. Ryston, $336,640; T. A. Gillespie Co., $342,120; Thomas Holahan, $345,000; Haller & Shepard, $349,600; Houston & Barnard, $358,100; Cleveland & Sons Co., $361,900; Myers & McWilliams, $372,200; Buffalo Dredging Co., $377,100; Whitmore, Rauber & Vicinus, $378,100; Fitch & Douglass, $392,600. E. A. Fisher is Consult. Engr. Noted Apr. 8.

+Crushed Stone—Cliffside Park, N. J. (Cliffside post office)—The Board of Council has awarded the contract to the CLIFFSIDE TRAP ROCK CO., Cliffside Park, for trap rock as needed throughout the year, at $1.17 per cu.yd.

+Iron Stairways—Jersey City, N. J.—The Public Service Ry. Co. has awarded the contract to the FAGAN IRON WORKS, Hoboken, N. J., for a new iron stairways to replace the stairways leading to the elevated structure at Hoboken Ave., Fleet St., Beacon Ave., Jefferson Ave., Ravine Ave., Jersey City Heights and Willow Ave., Bloomfield St. and Washington St., Hoboken.

Fire Hose—Jersey City, N. J.—Bids will be received until 2 p.m., June 10, by the Board of Commissioners for about 8000 ft. of 4-ply, solid multiple, woven-cotton, rubberlined fire hose. M. I. Fagen is City Clk.

Grand Stand—Newark, N. J.—Bids will be received until June 8 by the Essex County Park Commission for the construction of a grandstand at Weequahic Park, including structural steel, masonry, carpentry and metal work. Plans are on file at the office of William P. Field, Engr., 763 Broad St. A. Church is Secy. of the Board. Noted May 20.

Dike—New Brunswick, N. J.—All bids received for building 6000 ft. of dike along the Hackensack River have been rejected. Thos. J. Headler, Entomology Bldg., New Brunswick, is Dir.

Motor Fire Apparatus—West New York, N. J.—Bids will be received by the Town Council until June 8 for one 75-hp. hook and ladder, one triple combination chemical pump and hose-wagon and one motor-driven hose and chemical wagon. Noted May 20.

Mausoleum—Allentown, Penn.—Plans are being prepared by Charles W. Grossart, Arch., Allentown, for a mausoleum containing 330 vaults to be erected in Fairview Cemetery. There will also be a chapel and a caretaker's residence on the property. F. C. H. Schweyer, Allentown, is interested.

Bulkhead—Philadelphia, Penn.—The City Council has authorized the Director of Wharves and Ferries to spend a portion of the $250,000 appropriated by the state in constructing a wooden bulkhead along the east bank of the Schuylkill River.

★Tunnel—Pittsburgh, Penn.—(Official)—Bids well be received by the County Commissioners until 1:30 p.m., July 12, for the construction of Highway Tunnel No. 1, extending from the south side of East Carson St. to a point on Warrington Ave. near Boggs Ave. Hyatt M. Cribbs is County Controller.

Motor Fire Apparatus—Scranton, Penn.—The City Council has decided to issue bonds for the purchase of fire apparatus to cost about $18,000. Ellsworth Kelly is City Clk.

Coal Pier—Baltimore, Md.—The Baltimore & Ohio R.R. Co. is having tentative plans prepared for the construction of a 700-ft. coal pier at Curtis Bay. The estimated cost is $1,000,000.

Railroad Car—Washington, D. C.—See item under "Federal Government Work."

Drainage—Bartow, Fla.—The city plans to issue $256,000 in drainage bonds.

Sheds—Jacksonville, Fla.—Bids will be received until noon, June 8, by Capt. F. W. Bruce, Engr., Port Commission, for the erection of steel wharf sheds on the municipal piers. Noted May 6.

+Drainage—Donaldsonville, La.—According to press reports, the contract for drainage work in the Bayou Conway Drainage District, has been awarded to PICARD, BUCKMASTER & WEIL, at 6.49c. per cu.yd. Noted Apr. 8.

+Drainage—Estherwood, La.—The contract for the construction of a drainage system in the Fifth Ward, Arcadia Parish, has been awarded to ZIGLAR DREDGE BOAT CO., Jennings, La., at about 8c. per cu.yd. About 300,000 cu.yd. of material is to be removed.

Rat-Proofing—New Orleans, La.—The New Orleans Dock Board has received a loan of $105,000 for the purpose of rat-proofing the Julia St. wharves.

Earth Embankment—New Orleans, La.—(Official)—Bids will soon be called by the city for the construction of an earth embankment about 10 ft. high, 30 in. wide across the top, 60 in. across the bottom and 51,000 lin.ft. long. It will stretch across the marshes and is for the purpose of creating a foundation for storm protection. W. J. Hardee is City Engr.

★Retaining Wall—Cincinnati, Ohio—Bids will be received by the Commissioners of Hamilton County until noon, June 18, for constructing concrete retaining wall in Cooper Creek, on the west side of Reading Pike, opposite Cooper Ave. in Sycamore Township. Albert Reinhardt is Clk.

Greenhouses—Columbus, Ohio—Bids will be received by Carl E. Steeb, Secy. Bd. of Trustees, Ohio State University, Columbus, until noon, June 15, for the construction of greenhouses for the horticulture and forestry buildings. Specifications may be obtained from Joseph N. Bradford, University Arch.

Levee—Piqua, Ohio—It is reported that bids will be received by the Clerk of the County Commissioners until June 4 for constructing the Shawnee levee. The estimated cost is $35,000.

Motor Fire Apparatus—Muncie, Ind.—The City Council has appropriated $14,000 for the purchase of a triple combination motor-driven engine and a tractor for 30-ft. aërial tower. John R. Kelly is City Clk.

Ditch—West Point, Ind.—Bids will be received by Pa l Ward, Drainage Comr., until June 12 for the construction of a ditch.

Channel Work—Chicago, Ill.—According to press reports, bids will soon be received for flattening the slopes of North Shore Channel between Wilmette pumping station and West Railroad Ave.

Piers, Etc.—Evanston, Ill.—An election will be held on June 7 for the purpose of voting on the question to issue $50,000 in bonds for constructing piers, breakwater, and retaining walls.

Electric Fixtures—Springfield, Ill.—(Official)—Bids will be received by Frank D. Whipp, Fiscal Superv. Bd. of Administration, Springfield, until 3 p.m., June 21, for furnishing and installing electric fixtures at a number of state institutions.

Building Equipment—Milwaukee, Wis.—Sealed bids will be received by L. G. Widule, County Clk., until 10 a.m., June 7, for furnishing the equipment for the Milwaukee County Tuberculosis Sanatorium. The following gives a partial list of the materials required: Steel lockers, pipe covering, vacuum cleaners, hospital equipment, kitchen utensils, china, glassware and silver, refrigerators, beds, shades, screens, cooking apparatus, sterilizers, laundry equipment. G. L. Bellis is Supt. The estimated cost is $650,000.

Ditches—Three Lakes, Wis.—(Official)—Bids will be received by the Secretary, Three Lakes Drainage District, until June 25 for constructing about 11 miles of open ditches, requiring about 150,000 cu.yd. earth excavation.

+Ditch—Litchfield, Minn.—The contract for constructing Ditch No. 36 has been awarded to DUFFY & McGRAW, Litchfield, at $16,916. A. O. Palmguist is County Audr. Noted May 20.

Dredge—Kansas City, Kan.—Bids will be received until 10 a.m., June 7, by P. J. Broll, Secy., Kaw Valley Drainage District, for constructing and delivering one hydraulic dredge.

Improvement to Creek—Kansas City, Mo.—The City Council has made an appropriation of $25,000 for improving Turkey Creek.

Earthwork—St. Louis, Mo.—Bids will be received until June 17 by the Secretary, Mississippi River Commission, 1311 International Life Bldg., St. Louis, Mo., for constructing about 175,000 cu.yd. of earthwork in East Side Levee and Sanitary District.

Levee—Caldwell, Tex.—Bids will be received until June 26 by R. S. Newsom, Chn., Commissioners Burleson County Improvement District, for levee work. The contract involves the construction of about 360,000 cu.yd. of earthwork also several drain ditches. J. C. Nagle, Austin, is Engr.

+Pier—Galveston, Tex.—The contract for the construction of a pier for the Galveston Wharf Co. has been awarded to the STONE & WEBSTER ENGINEERING CORPORATION, Boston, Mass. Ford, Bacon & Davis, New Orleans, La., is Engr. Noted May 6.

Drainage—Harper, Utah—It is reported that the County Commissioners, Brigham City, have been petitioned to create a drainage district. David Rosenbaum and W. H. Barnard are among those interested.

Drainage—Bellingham, Wash.—Charles E. Lind, Bellingham, at $10,544, submitted low bid for digging the main ditch and three laterals for Drainage District No. 9, Whatcom County.

Drainage—Cheney, Wash.—It is reported that bids will be received until June 10 for the reclamation of about 900 acres of lake bed. The work involves the construction of about 14 miles of ditches. Ingersoll & Bugby, Old National Bank Bldg., Spokane, is Engr.

Dikes—Everett, Wash.—Bids will soon be called by M. Weatherbee, County Audr., for constructing dikes in the Grand Marsh District.

Drainage—North Yakima, Wash.—Bids will be received by the County Commissioners until June 11 for drainage work in Districts Nos. 4, 13 and 24. Charles E. Barrett is County Audr.

Drainage—Washougal, Wash.—Plans for the reclamation of 2000 acres of bottom land near this city are being prepared by F. E. Bethea, Washougal. The work will cost $25,000, and includes drainage system and the construction of dikes.

Mausoleum—Portland, Ore.—A mausoleum to cost about $65,000 will be built on East 14th St. by the Portland Mausoleum Co., from plans prepared by Lawrence & Holford, Arch., Portland. The structure will be of reinforced concrete and marble, and will contain 1000 crypts. Bids will soon be asked for materials and construction.

Dock—St. Johns, Ore.—Permission to construct a dock, costing about $45,000, has been granted by City Council to the Star Sand & Gravel Co. The structure will be 360 ft. long and 150 ft. wide, and will be built between Richmond and John St.

Jetty—Suislaw, Ore.—The Port Commissioners of Suislaw plan to extend the north and south jetty at an estimated cost of $230,000. L. B. Cushman is Chn.

+Pier—La Jolla, Calif.—The contract has been awarded to the MERCEREAU BRIDGE & CONSTRUCTION CO., Pacific Electric Bldg., Los Angeles, at $24,180, for constructing a 400-ft. reinforced-concrete pier for the State Biological station.

+Dredge—Marysville, Calif.—The contract for constructing the dredge for the Marigold Gold Dredging Co. has been awarded to the UNION IRON WORKS, San Francisco, Calif., at about $400,000.

+Tank Steamer—San Francisco, Calif.—The Union Oil Co. has awarded a contract for the construction of an oil tank steamer to the UNION IRON WORKS, at about $1,000,000.

Pier Extension—Cap Chat, Que.—Bids will be received by R. C. Desrochers, Secy., Dept. of Pub. Wks., until June 18, for constructing an extension to training pier at Cap Chat.

Boat Harbor—Ottawa, Ont.—It is reported that bids will be received until June 4 by R. C. Desrochers, Secy., Dept. Pub. Wks., for constructing a boat harbor at North Lake, Kings County.

Crane—Ottawa, Ont.—Bids will be received by G. J. Desbaratas, Deputy Minister of Naval Service, Ottawa, until July 1 for furnishing one 30-ton steam wharf crane of the derricking jib type.

Breakwater—Ottawa, Ont.—Bids will be received by the Department of Public Works, Ottawa, until June 14 for the construction of a breakwater at Petite River Est, Gaspe County, Que.

River Improvement—Ottawa, Ont.—The government plans to raise the level of the St. Lawrence River by a system of retaining dikes and the damming of subsidiary channels. A report on this work has been prepared by E. E. Haskell, Dean of the College of Civil Engineering, Cornell University; V. W. Forneret, Engineer of the St. Lawrence Ship Channel, and W. J. Stewart, Hydrographer. Dams will be of rock-filled construction. The work will cost about $487,000.

Jetty—New Westminster, B. C.—The contract for the second unit of the Fraser River main channel jetty at Stevenson, near New Westminister, has been awarded to the MARSH HUTTON POWERS CO., LTD., Vancouver, B. C., at about $400,000.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Manchester, N. H.—The contract will soon be awarded for the construction of a temple for the Manchester Lodge of Elks. The estimated cost is $80,000.

Montpelier, Vt.—The Governor has appointed a commission to build a $150,000 state library. Horace F. Graham is a member of the Comn.

Boston, Mass.—The Fidelity Trust Co. will build an 11-story bank building at State St. and Chatham Row, to cost $600,000.

Boston, Mass.—Bids will be received until July 1 by Richard A. Lynch, Supt. of Dept. of Pub. Bldgs., for the construction of a combined police station and school administration building on Tremont St. J. McGinniss, 16 Arlington St., is Arch. Noted Apr. 1.

✚Boston, Mass.—The NORCROSS BROS. CO. has been awarded the contract for the construction of a five-story, 109x119-ft. brick and stone administration building for the Massachusetts General Hospital. The estimated cost is $150,000. Noted May 20.

Boston, Mass.—J. Shapiro, 92 White St., will build a brick theater on Bennington St., to cost about $200,000.

✚Boston, Mass.—The contract for the construction of a 100x150-ft. reinforced-concrete moving picture theater at 415 Washington St., for the Moving Picture Co. of Massachusetts, has been awarded to the FLEISCHMAN CONSTRUCTION CO., 7 West 45th St., New York, N. Y. The estimated cost is $250,000. Thomas W. Lamb, 644 Eighth Ave., New York, N. Y., is Arch.

Brookline, Mass.—An eight-story, 85x103-ft. brick and stone apartment house will be built on Beacon St. for Charles Newhall, 18 Tremont St. The estimated cost is $300,000. Harland A. Perkins, 44 Broomfield St., is Arch.

✚Chicopee, Mass.—The Board of Education has awarded the contract for the construction of the high school to the SARUBBI CONSTRUCTION CO., Springfield, Mass., at $50,874. Noted Apr. 1 and 92.

Danvers, Mass.—The Town of Danvers plans the construction of a high school building. J. Anderson Lord, 123 Liberty St., is Clk.

✚Holyoke, Mass.—The contract has been awarded by Geo. P. B. Alderman to LOUIS CARREAN & SON, for the construction of a six-story, fireproof office and store building. It will cost between $75,000 and $100,000.

✚Milford, Mass.—The contract for the construction of a nurses' home at the Milford Hospital has been awarded to GASCOGNE & GODDARD, 201 Devonshire St., Boston, Mass. The estimated cost is $75,000.

Milford, Mass.—Walter L. Collins and Wendell T. Phillips have been retained as architects for the $60,000 grammar school.

✚Wellesley, Mass.—J. W. BISHOP & CO., Worcester, Mass., has been awarded the contract for the construction of an addition to the Carnegie Library at Wellesley College, at approximately $100,000.

West Springfield, Mass.—(Official)—Bids will be received until June 3 by Fowle & Hardwig, Arch., Westfield, Mass., for the construction of a $100,000 addition to the high school. J. R. Fausey, Town Hall, is Supt. of Schools. Noted May 20.

Newport, R. I.—Revised plans for the John Clark School, to be built on Mary St., have been approved by the Aldermen and bids will soon be called for. Thomas Weaver is Arch.

Olneyville, R. I.—(Providence post office)—A 100x150-ft. brick school will be built for St. Anthony's Parish. Rev. George W. Brown is pastor. John F. O'Malley, 75 Westminster St., Providence, is Arch.

Providence, R. I.—The Knights of Columbus will build a $200,000 building. C. Woodbury Gorman is Pres. William G. Richards is Arch.

Providence, R. I.—A homeopathic hospital will be constructed on Sessions St., to cost about $250,000. William F. Goodman is Treas.

✚Bridgeport, Conn.—The contract for the construction of an addition to the county courthouse on Golden Hill St. has been awarded to DOWLING & BOTTOMLY, 43 Randall Ave., at $123,000. Other bidders were: Edwin Outwater, New York, $143,860; Tracey Bros., Waterbury, $145,588; John T. Brady, New York, $146,679; E. Whitehead, Worcester, Mass., $147,696; T. J. Pardy Co., Bridgeport, $149,266; Harris Construction Co., Stamford, $149,926; Oscawana Building Co., New York, $151,427; Norcross Bros., Worcester, Mass., $155,550; S. W. Hubbell Building Co., $155,511; Willmarth-Mackillop Co., Pawtucket, R. I., $158,494.

✚Greenwich, Conn.—J. W. BISHOP & CO., 109 Foster St., Worcester, Mass., has been awarded the contract for excavating, footings and foundation work for the $250,000 hospital for the Greenwich Hospital Association. Noted Feb. 25.

✚New Haven, Conn.—The Board of Education has awarded the contract for the construction of the Abraham Lincoln School on Shelton Ave., to the J. N. LEONARD CO., at $50,950. Other bids were: James H. Hogan, $54,000; D. H. Clark Co., $53,941; Samuel C. Russell, $57,000; Charles W. Murdock, $51,961; Eastern Engineering & Construction Co., $62,594; Lewis A. Miller, Meriden, $53,219; H. Wales Lines Co., Meriden, $53,410; Dowling and Bottomley, Bridgeport, $52,636; Oscawan Bldg. Co., $53,970; Louckes & Clark, Wallingford, $59,809.

Waterbury, Conn.—The State Legislature has appropriated $60,000 for a site for a militia armory

Binghamton, N. Y.—The Scranton & Binghamton Traction Co., Scranton, Penn., plans to construct a terminal passenger and freight station at State and Washington St. Estimated cost, $50,000. Richard W. Day, Scranton, Penn., is Gen. Mgr.

✚Buffalo, N. Y.—The contract for the construction of a two-story, 61x146-ft. school on Tifft St. for the Holy Family Church has been awarded to MOSIER & SUMMERS, 1015 Delaware Ave., Buffalo. Max G. Beierl, German American Bank Bldg., is Arch.

Middletown, N. Y.—D. H. Canfield, Arch., Argus Blk., is preparing plans for the construction of a five-story building for the Merchants National Bank. The estimated cost is $75,000. Garrett T. Townsend is Pres.

New York, N. Y.—(Borough of Brooklyn)—Thomas W. Lamb, Arch., 644 Eighth Ave., New York, has prepared plans for the construction of a two-story theater at 44th St. and Fifth Ave. for B. S. Moss. The estimated cost is $150,000.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by Edward M. Adelsohn, Arch. and Engr., 1776 Pitkin Ave., for the construction of a five-story, 100x100-ft. fireproof building at Rockaway Parkway and Ave. A for the Brownsville and East New York Hospital. The estimated cost is $100,000.

New York, N. Y.—(Borough of Manhattan)—The Wells Bros. Co., 53 West Jackson Blvd., Chicago, Ill., plans to construct a 12-story apartment house at Fifth Ave. and 72d St. J. E. R. Carpenter, 66 East 66th St., New York, is Arch. The reported cost is $3,000,000.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids have been received for underpinning the foundations of the dormitory for females at the Metropolitan Hospital, Blackwells Island, as follows: Underpinning & Foundation Co., 290 Broadway, $20,850; Charles Meads & Co., 38 Park Row, $33,200; MacArthur Concrete Pile & Foundation Co., 11 Pine St., $45,930. Noted May 13.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by Emery Roth, Arch., 405 Lexington Ave., for the construction of a 12-story apartment house at West End Ave. and 89th St. for the 601 West End Ave. Co., Inc. The estimated cost is $260,000. Noted Apr. 22.

Rochester, N. Y.—Bids will be received until June 10 by Gordon & Madden, Arch., Sibley Blk., for the construction of a school on Scio St. and University Ave. The estimated cost is $200,000. J. S. Mullan is Secy., Bd. of Education.

Rome, N. Y.—Plans are being prepared by Metzgar & Bullock, Arch., 18 East 41st St., New York, for the construction of a one-story building for the Rome Trust Co. Estimated cost, $50,000. Noted May 20.

Utica, N. Y.—Plans have been prepared by T. P. Barnett Co., Arch., Central National Bank Bldg., St. Louis, Mo., for the construction of a three- and four-story, 126x190-ft. building for the St. Elizabeth Hospital. Noted May 18.

✚Utica, N. Y.—GRIFFITHS & PIERCE, Utica, have been awarded the contract for the construction of a four-story, 127x192-ft. addition to the Martin Hotel. Estimated cost, $250,000. T. P. Barnett Co., 724 Central National Bank Bldg., St. Louis, Mo., is Arch. Noted Apr. 29.

Vineland, N. Y.—George S. Davis, Arch., Trenton, is preparing plans for the construction of a dormitory and diningroom at the State Hospital for Feeble Minded. The estimated cost is $90,000.

✚Watertown, N. Y.—The contract for the construction of additions and alterations to the three-story building for G. C. Sherman, Trust Co. Bldg., has been awarded to the CHARLEBOIS BROS. Estimated cost, $75,000.

Yorktown Heights, N. Y.—The Board of Managers of the State Charities Aid Association has passed a resolution petitioning the Governor to sign the Sage Bill. The bill provides for the appropriation of $300,000 to begin the construction of the Mohansic State Hospital for the Insane.

Collingswood, N. J.—Bids will be received until June 8, by the School Board, for the construction of a two-story addition to the high school. Clyde S. Adams is Arch. Estimated cost, $40,000. Noted Feb. 25 and Mar. 25.

Jersey City, N. J.—Bids will soon be received by the Board of Education for the construction of Public School No. 16 at Washington and Sussex St.

Jersey City, N. J.—Bids wil soon be received by the Jersey City Lodge of Elks, for the construction of a building at 2853-57 Hudson Blvd. The estimated cost is $100,000. Patrick T. Powers is Pres. of Bldg. Com.

Jersey City, N. J.—Bids will be received until 2 p.m., June 10, by the Jersey City Commissioners, Assembly Chamber, for the construction of a laboratory on Summit Ave.

✚Jersey City, N. J.—The Board of Education has awarded the contract for the construction of Public School No. 5 to J. J. MARIONE CO., at $56,880. Noted Sept. 3.

Montclair, N. J.—The Board of Education plans to expend $40,000 in remodeling and fireproofing the high school at Montclair.

Newark, N. J.—Bids will be received until 3 p.m., June 8, by the Essex County Park Commission for the construction of an administration building at Branch Brook Park. Noted May 6.

+Trenton, N. J.—S. W. MATHER & SONS, Trenton, at $218,000, has been awarded the contract for the construction of the Junior High School. Noted May 20.

Connellsville, Penn.—The First Methodist Episcopal Church plans to construct a building at Connellsville. Estimated cost, $80,000.

Elizabethtown, Penn.—Guy King and E. A. Wightman, Archs., 1513 Walnut St., Philadelphia, have been retained by the Philadelphia Free Masons to prepare plans for the construction of five memorial hospital buildings at Elizabethtown.

Lancaster, Penn.—Plans are being prepared by C. E. Urban, Arch., Woolworth Bldg., Lancaster, for the construction of a two-story school. The estimated cost is $150,000.

Philadelphia, Penn.—Sauer & Hahn, Arch., 1112 Chestnut St., has prepared plans for the construction of a three-story theater and commercial building at 31st and Wilt St., for the Northwestern Realty Co. Estimated cost, $75,000.

+Philadelphia, Penn.—The contract for the construction of a three-story rectory on Price St. for the Mission of St. Vincent De Paul has been awarded to the JOSEPH BIRD CO., 213 North 11th St., Philadelphia. The estimated cost is $40,000.

+Tarentum, Penn.—(Official)—ROSE & FISCHER, Pennsylvania Ave., Pittsburgh, at $81,939, has been awarded the contract for the construction of a school in the First Ward. S. M. Kennedy is Secy. of School District. Noted Mar. 25.

CONCRETE RESERVOIR, SALEM, MASS.

Bids were received May 17 by the Board of Public Works, Salem, Mass., for the construction of a concrete covered reservoir from: (A) A. G. Tomasello; (B) Sessler-Weaver Co.; (C) Middlesex Contracting Co.; (D) David J. Sheehan Co.; (E) W. M. Bailey Co.; (F) Stuart & Sons Co.; (G) C. M. Leach; (H) Bruno & Petitti; (I) Fred T. Ley (informal); (J) W. T. Ryan Contracting Co.; (K) Davis & Brock. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K
1000 cu.yd. excavation	$1.00	$0.90	$0.95	$1.00	$1.00	$0.75	$1.33	$0.75	$1.00	$1.50	$0.80
25,000 cu.yd. earth fill	0.35	0.34	0.29	0.50	0.52	0.50	0.67	0.40	0.55	0.80	0.60
2200 cu.yd. concrete in piers and arches	8.45	6.72	8.70	11.00	10.20	11.75	10.67	12.00	15.00	11.00	14.00
1850 cu.yd. concrete in floor	7.00	13.05	8.40	8.00	8.55	7.25	8.23	10.00	7.50	9.00	11.00
3300 cu yd. all other concrete	6.30	5.54	8.40	8.50	8.90	8.50	7.63	9.00	9.25	8.00	8.00
53 tons reinforcing steel	75.00	80.00	80.00	80.00	51.30	75.00	69.00	80.00	60.00	80.00	90.00
Gate house, lump sum	1400.00	740.00	2500.00	1000.00	1174.00	1500.00	1673.00	1500.00	886.00	3600.00	2500.00
3 acres fertilizing and seeding	100.00	160.00	50.00	100.00	250.00	150.00	75.00	100.00	60.00	200.00	250.00
Appurtenances, lump sum	700.00	900.00	800.00	500.00	903.00	1900.00	3857.00	500.00	1200.00	1000.00	1500.00
Extended totals	$68,455	$72,968	$78,290	$86,590	$87,173	$88,387	$91,370	$91,890	$97,596	$98,190	$102,870

RAPID TRANSIT SYSTEM, NEW YORK, N. Y.

Route 49, Section 2

Bids were received May 18 by the Public Service Commission for the First District for the construction of Section 2, Route 49, a part of the Culver Rapid Transit Ry., Borough of Brooklyn, from: (A) Oscar Daniels & Co.; (B) Snare & Triest Co.; (C) A. L. Guidone & Son, Inc.; (D) Phoenix Bridge Co.; (E) McClintic-Marshall Co.; (F) Post & McCord; (G) Ft. Pitt Bridge Works; (H) Conners Bros. Co., Inc.; (I) T. A. Gillespie Co.; (J) Connex Engineering & Construction Co.; (K) Arthur McMullen; (L) E. E. Smith Contracting Co.; (M) Rodgers & Hagerty, Inc.; (N) Norton & Gorman Co.; (O) Max Raymond; (P) Jobson & Gifford Co.; (Q) H. B. Converse Co. The item bids were as follows:

	A	B	C	D	E	F	G	H	I
22,200 cu.yd. column excavation	$1.15	$1.50	$1.33	$1.70	$1.40	$1.35	$1.45	$2.50	$2.00
11,100 cu.yd. railroad duct excavation	1.15	1.50	1.40	1.30	1.25	1.30	1.35	1.50	2.00
8100 cu.yd. concrete masonry	4.00	5.90	7.80	6.05	5.90	6.10	6.00	6.90	6.85
10 cu.yd. brick masonry	15.00	22.00	15.00	20.00	15.00	15.00	15.00	20.00	16.00
14,900 lin.ft. timber piles	0.10	0.40	0.40	0.30	0.35	0.40	0.35	0.40	0.35
2 M. ft. b.m. timber foundation	40.00	70.00	54.00	60.00	75.00	60.00	60.00	60.00	45.00
290 lin.ft. vitrified drain pipe, 4-in.	0.50	0.70	0.20	0.25	0.25	0.25	0.35	0.30	0.45
313,500 duct ft. railroad ducts	0.16	0.13	0.15	0.105	0.12¼	0.13	0.12	0.125	0.15
13,950 tons riveted steel	48.35	45.30	46.50	47.90	47.90	49.20	47.60	47.50	48.30
550 tons steel beams and shapes	48.35	45.30	46.50	47.90	43.90	49.20	46.35	48.00	48.30
5 tons steel roads and bars	50.00	60.00	60.00	55.00	60.00	60.00	70.00	55.00	35.00
240 tons miscellaneous iron castings	40.00	51.00	50.00	55.00	41.00	55.00	50.00	60.00	35.00
500 sq.yd. street surface restored	3.00	1.50	1.70	1.50	1.50	1.00	1.40	1.75	1.20
300 lin.ft. new bluestone curb, 5-in.	0.90	1.25	1.00	0.90	1.20	1.10	1.00	2.00	1.50
100 lin.ft. new bluestone curb, 4-in.	0.80	1.10	0.90	0.80	1.00	1.00	0.90	2.00	1.20
6000 lin.ft. for restoring old curb	0.15	0.35	0.35	0.30	0.20	0.20	0.40	0.25	0.25
22,800 lin.ft. electric (overhead trolley) railroad	1.00	2.00	0.97	1.05	1.70	0.90	2.20	1.00	1.00
100 lin.ft. depressing street surface railroad	7.15	3.00	4.50	2.50	1.70	0.50	0.60	4.00	5.00
100 lin.ft. lateral movement of surface tracks	4.15	4.00	4.50	4.00	1.70	0.50	2.00	2.00	5.00
100 lin.ft. 6-in. water pipe	0.80	1.00	0.22	1.00	1.00	1.00	1.00	0.70	1.00
100 lin.ft. 8-in. water pipe	1.00	1.00	0.23	1.25	1.25	1.10	1.25	1.00	1.00
300 lin.ft. 12-in. water pipe	1.50	1.50	0.32	1.50	2.50	1.20	1.50	1.75	1.25
100 lin.ft. 16-in. water pipe	2.00	1.50	0.41	1.75	3.00	1.50	2.00	2.50	2.25
100 lin.ft. 20-in. water pipe	3.00	2.00	0.45	2.50	4.25	2.50	2.50	3.50	2.75
100 lin.ft. 4-in. c.i. gas pipe	0.70	0.60	0.15	0.75	0.80	0.70	0.70	1.00	0.50
100 lin.ft. 6-in. c.i. gas pipe	0.85	1.00	0.22	1.00	1.05	1.00	1.00	1.50	0.50
100 lin.ft. 8-in. c.i. gas pipe	1.00	1.00	0.30	1.25	1.35	1.10	1.25	1.75	0.65
400 lin.ft. 20-in. c.i. gas pipe	2.00	2.00	0.50	2.00	4.[illegible]0	2.20	2.50	4.00	3.00
10 lin.ft. new c.i. hob and spigot pipe	35.00	35.00	40.00	50.00	60.00	60.00	50.00	60.00	47.00
2 lin.ft. new c.i. hob and spigot pipe, special	70.00	60.00	50.00	80.00	60.00	80.00	70.00	80.00	47.00
2000 duct ft. electrical ducts and conduits in place	0.35	0.35	0.75	0.40	0.25	0.35	0.15	0.25	0.50
100 lin.ft. (a) 2½-in. w.i. pipe	0.40	0.67	0.75	0.65	0.50	0.40	0.40	0.80	0.50
100 lin.ft. fiber ducts	0.35	0.50	0.75	0.65	0.50	0.45	0.30	0.40	0.50
Extended totals	$863,775	$867,390	$877,097	$878,260	$885,676	$894,192	$898,184	$908,569	$914,204

	J	K	L	M	N	O	P	Q
22,200 cu.yd. column excavation	$1.80	$2.00	$1.25	$1.00	$1.80	$2.00	$1.75	$1.03
11,100 cu.yd. railroad duct excavation	1.00	2.00	1.50	1.00	1.55	2.00	1.45	1.15
8100 cu.yd. concrete masonry	7.10	7.00	6.25	7.00	6.80	7.00	6.85	6.14
10 cu.yd. brick masonry	10.00	15.00	12.50	15.00	21.00	20.00	15.00	23.00
14,900 lin.ft. timber piles	0.45	0.40	0.40	0.35	0.42	0.30	0.40	0.38
2 M. ft. b.m. timber foundation	70.00	45.00	40.00	50.00	50.00	100.00	60.00	60.00
290 lin.ft. vitrified drain pipe, 4-in.	0.40	0.30	0.30	0.40	0.50	1.00	0.35	0.42
313,500 duct ft. railroad ducts	0.13	0.15	0.125	0.15	0.135	0.13	0.15	0.13
13,950 tons riveted steel	50.00	49.50	50.50	50.00	49.80	48.25	49.70	59.74
550 tons steel beams and shapes	50.00	49.50	50.50	50.00	49.80	48.75	49.70	53.74
5 tons steel roads and bars	60.00	50.00	40.00	55.00	65.00	70.00	55.00	80.00
240 tons miscellaneous iron castings	75.00	40.00	50.00	55.00	54.00	50.00	60.00	58.85
500 sq.yd. street surface restored	2.00	1.50	1.00	2.50	0.80	2.00	1.80	2.25
300 lin.ft. new bluestone curb, 5-in.	1.00	1.00	1.25	1.00	1.10	1.50	1.35	1.00
100 lin.ft. new bluestone curb, 4-in.	1.00	0.90	1.00	1.00	0.90	1.40	1.25	1.00
6000 lin.ft. for restoring old curb	0.25	0.30	0.45	0.25	0.20	0.50	0.35	0.25
22,800 lin.ft. electric (overhead trolley) railroad	0.60	0.50	1.65	2.00	1.45	2.00	3.25	1.49
100 lin.ft. depressing street surface railroad	0.50	5.00	5.00	2.00	2.50	5.00	1.50	2.35
100 lin.ft. lateral movement of surface tracks	1.50	5.00	5.00	2.00	1.75	5.00	2.70	3.53
100 lin.ft. 6-in. water pipe	0.10	0.50	0.50	0.50	0.90	1.00	1.90	0.47
100 lin.ft. 8-in. water pipe	0.10	0.50	0.75	0.75	1.20	1.25	2.37	0.60
300 lin.ft. 12-in. water pipe	0.10	1.00	1.00	1.00	1.60	1.50	3.15	1.06
100 lin.ft. 16-in. water pipe	0.10	1.25	1.50	1.50	2.25	2.00	4.90	1.48
100 lin.ft. 20-in. water pipe	0.10	1.50	2.00	2.00	2.70	2.50	7.05	2.45
100 lin.ft. 4-in. c.i. gas pipe	0.10	0.40	0.50	0.50	0.75	0.75	1.45	0.43
100 lin.ft. 6-in. c.i. gas pipe	0.10	0.50	0.75	0.75	1.10	1.00	1.77	0.60
100 lin.ft. 8-in. c.i. gas pipe	0.10	0.50	1.00	1.00	1.50	1.25	2.17	0.77
100 lin.ft. 20-in. c.i. gas pipe	0.10	1.50	2.00	2.50	3.00	2.50	3.00	2.35
40 lin.ft. new c.i. hob and spigot pipe	100.00	45.00	30.00	30.00	55.00	70.00	40.00	47.00
2 lin.ft. new c.i. hob and spigot pipe, special	150.00	60.00	75.00	65.00	80.00	100.00	75.00	70.00
2000 duct ft. electrical ducts and conduits in place	0.10	0.50	0.10	0.50	0.55	0.60	0.25	0.53
100 lin.ft. (a) 2½-in. w.i. pipe	0.10	0.50	0.50	1.00	0.60	0.80	0.35	0.53
100 lin.ft. fiber ducts	0.10	0.50	0.50	1.00	0.40	0.60	0.35	0.53
Extended totals	$918,126	$922,637	$929,759	$933,861	$936,800	$937,045	$982,587	$1,051,006

✚**Huntington, W. Va.**—The contract for the construction of the six-story Enslow Bldg. at Third Ave. and 11th St. has been awarded to E. N. ALGER, Huntington. Noted May 20.

Clarksdale, Miss.—The City Commissioners are considering the proposition to expend $150,000 for the construction of a school and city hall.

Bastrop, La.—The citizens of the Second School District voted in favor of the question of issuing $55,000 in bonds. The proceeds will be used for the construction of a school. Noted Apr. 22.

Lexington, Ky.—Plans are being prepared by Tietig & Lee, Arch., Lyric Bldg., Cincinnati, Ohio, for the construction of a general tuberculosis hospital. Mrs. Desha Breckinridge is interested.

Cincinnati, Ohio—The Building Committee of the Board of Education has approved the plans prepared by Garber & Woodward, Arch., Union Central Bldg., for the construction of the Walnut Hills High School on Madison Rd., Hyde Park. Estimated cost, $100,000. Noted Feb. 25.

Cleveland, Ohio—Bids will be received about June 15 for the construction of a four-story addition to the St. Alexis Hospital, Broadway and McBride Ave. The estimated cost is $100,000. W. C. Jansen, 403 O'Brien Bldg., is Arch.

Cleveland, Ohio—The Bohemian Catholic National Home Association plans to construct a three-story clubhouse at Broadway, Mumford and Barkwill Ave. The estimated cost is $100,000. Edward Kriz is Secy.

Cleveland, Ohio—Plans are being prepared for the construction of a five-story commercial and apartment building at East 105th St. and Euclid Ave. for the Doan Realty Co. Estimated cost, $200,000. Sydney S. Harvey, The Arcade, is interested.

Cleveland, Ohio—E. J. Schneider, Arch., 606 Cuyahoga Bldg., is preparing plans for the construction of an auditorium and gymnasium at 1939 West 54th St. for the St. Stephens Parish.

Columbus, Ohio—Revised plans are being prepared by Frank L. Packard, Arch., New Hayden Bldg., for the construction of a union terminal station. The estimated cost is $1,000,000. Noted Sept. 24 and Mar. 11.

Newburg, Ohio—(Cleveland post office)—Plans have been prepared by William J. Carter, Arch., 1423 Illuminating Bldg., Cleveland, for the construction of a temple at Miles Park Ave. for the Newburg Masonic Temple Co. Estimated cost, $50,000. Noted Apr. 15; under Cleveland, Ohio, Feb. 18 and May 6.

✚**Urbana, Ohio**—A. M. FRY, Piqua, at $44,000, has been awarded the contract for the construction of a two-story Masonic Temple at Urbana. Noted May 20.

✚**Elkhart, Ind.**—GRANT B. BUSHNELL, Elkhart, at $72,514, has been awarded the contract for the construction of a city hall.

Indianapolis, Ind.—The Scottish Rite Masons of Indiana plan to construct a temple to cost about $500,000. Calvin W. Busch, is Grand Master of the Adoniram Grand Lodge of Perfection.

✚**Richmond, Ind.**—The contract for the construction of a bank building at Eighth and Main St. for the Dickinson Trust Co. has been awarded to MEILING & CO., Chicago, Ill. Estimated cost, $60,000.

✚**Grand Rapids, Mich.**—The contract for the construction of a six-story addition to the Crathmore Hotel has been awarded to GENTZ BROS. Estimated cost, $80,000.

Chicago, Ill.—S. Scott Jay, Arch., is preparing plans for the construction of a building for the Union Bag & Paper Co. The estimated cost is $250,000.

Chicago, Ill.—Plans are being prepared by Marshall & Fox, Arch., 38 South Dearborn St., for the construction of a 10-story hotel at Baltimore Ave. The estimated cost of the entire project is $1,000,000. Corbett & Connery are interested.

Chicago, Ill.—Louis C. Wagner, 4330 Park Ave., plans to construct an apartment house on Jefferson Ave. near 53d St. The estimated cost is $100,000.

Oak Park, Ill.—Rufus A. Harlan plans to construct a building containing 30 apartments, at Washington Blvd. and Ridgeland Ave. The estimated cost is $100,000.

Milwaukee, Wis.—(Official)—Bids will be received about June 25 by Charles Ellis Malig, City Arch., for the construction of a two-story natatorium in the 14th Ward. The estimated cost is $60,000. Noted May 20.

✚**Superior, Wis.**—The contract for the construction of an exchange building on John Ave. between 14th and Belknap St. for the Wisconsin Telephone Co. has been awarded to EMIL SEDLACHEK, Superior. Estimated cost, $45,000. Noted Jan. 14 and 21.

✚**Boone, Iowa**—The contract for the construction of an eight-story building for the First National Bank has been awarded to the EVANS CONSTRUCTION CO., Mexico, Mo., at about $100,000. Noted Mar. 4.

Davenport, Iowa—At an election held recently the citizens voted in favor of issuing $55,000 in bonds, the proceeds of which will be used for the construction of a manual training building.

Malvern, Iowa—The Carnegie Corporation of New York, 576 Fifth Ave., New York, N. Y., plans to construct a library at Malvern. Estimated cost, $75,000.

Roland, Iowa—W. F. Gernandt, Arch., State Bank Bldg., Omaha, Neb., is preparing plans for the construction of a school. The estimated cost is $50,000. Noted May 6.

Sioux City, Iowa.—The Trinity Lutheran Church plans to construct an $80,000 church and parsonage at 12th and Jackson St. David R. Huber is Pastor.

Ironton, Minn.—Edward F. Broomhall, Arch., 710 Alworth Bldg., Duluth, is preparing plans for the construction of a high school. The estimated cost is $100,000.

Minneapolis, Minn.—The Local Order of the Brotherhood of American Yeoman contemplates the construction of a clubhouse. Estimated cost, $50,000.

Ellendale, N. D.—(Official)—Bids will be received until 2 p.m., June 4, by B. R. Crabtree, Clk., Bd. of Education, for the construction of the Ellendale School. The estimated cost is $45,000. Gilbert R. Horton, Jamestown, is Arch. Noted May 13.

Miles City, Mont.—Plans are being prepared by B. Riveness, Arch., for the construction of a three-story, 64x124-ft. addition to the high school. Estimated cost, $60,000.

St. Louis, Mo.—Oscar A. Elmo, 5656 Waterman Ave., plans to construct three three-story apartment houses on Waterman Ave. near Belt Ave. The estimated cost is $90,000.

St. Louis, Mo.—Paul Brown plans to construct a hotel at 18th St. and Washington Ave. The estimated cost is between $500,000 and $750,000.

Marlin, Tex.—(Official)—An election will be held June 15 to vote on the question of issuing $60,000 in bonds. The proceeds will be used for the construction of a school. I. H. Ponell is City Secy.

Tulsa, Okla.—S. Gallais plans to construct an eight-story bank and office at Fourth St. and Boston Ave. The estimated cost is $150,000.

Denver, Colo.—At an election held May 18 the citizens voted against the question of issuing bonds for the construction of the following buildings: Criminal Court Building, $125,000; city market, $150,000; hospital addition, $500,000; Women's Industrial Home, $50,000. Noted Apr. 8 and 29.

Loveland, Colo.—(Official)—At a recent election the citizens voted against the question of issuing $100,000 in bonds. The proceeds was to have been used for the construction of a high school. Mary N. Kieler is Secy., Bd. of Education. Noted Mar. 11.

ROAD DISTRICT NO. 1, HARRISON COUNTY, TEXAS

✚Bids were received Apr. 6 by the Commissioners Court of Harrison County, Marshall, Tex., for the improvement of Road District No. 1, from: (A) W. T. Montgomery, San Antonio; (B) J. H. Howard & Son, Cameron; (C) Roach, Manigan Paving Co., Ft. Worth; (D) SMITH BROS., Crockett (awarded contract); (E) E. Key, Jr., Marshall; (F) Wetzell & Co., Danville, Ill.; (G) J. N. George & Sons; (H) S. A. Gano, Jackson, Miss.; (I) O. C. McElrath, Tyler; (J) Owens Construction Co., Vicksburg, Miss. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J
72,300 cu.yd. earth excavation	$0.22	$0.21½	$0.20	$0.15¼	$0.20	$0.30	$0.25	$0.21	$0.21	$0.19¼
Cu.yd. loose rock excavation	0.30	0.50	0.40	0.35	0.50	0.60	0.40	0.50	0.40	0.40
Cu.yd. solid rock excavation	0.50	1.60	1.00	0.80	1.10	1.00	0.75	0.70	0.80	0.90
11,500 cu.yd. material hauled 100 to 500 ft.	0.02	0.04	0.02	0.02	0.02	0.03	0.03	0.01¼	0.20	0.01¼
2.5 acres clearing	20.00	20.00	60.00	15.00	40.00	50.00	50.00	25.00	20.00	0.30
1.75 acres grubbing	30.00	50.00	90.00	50.00	75.00	75.00	100.00	40.00	50.00	30.00
51 station fencing to be moved or built	1.00	1.00	2.25	1.00	3.00	1.20	1.26	1.80	1.00	3.00
556 cu.yd. concrete plain	14.00	10.00	10.00	8.00	10.00	16.50	10.85	11.50	9.00	8.00
198 cu.yd. concrete reinforced	19.00	13.00	14.00	11.00	15.00	17.50	12.85	12.50	12.00	10.00
133 ft. hauling and laying 15-in. corrugated metal pipe	0.25	0.15	0.25	0.15	0.30	0.30	0.25	0.25	0.15	0.25
194 ft. hauling and laying 18-in. corrugated metal pipe	0.25	0.20	0.25	0.18	0.30	0.32	0.25	0.25	0.15	0.25
308 ft. hauling and laying 24-in. corrugated metal pipe	0.30	0.20	0.25	0.24	0.35	0.50	0.30	0.25	0.20	0.30
50 ft. hauling and laying 30-in. corrugated metal pipe	0.35	0.25	0.25	0.30	0.50	0.60	0.30	0.25	0.25	0.35
84 ft. hauling and laying 36-in. corrugated metal pipe	0.35	0.30	0.25	0.36	0.75	0.65	0.35	0.35	0.30	0.40
Hauling and laying 42-in. corrugated metal pipe, per ft.	0.40	0.50	0.30	0.42	1.00	0.75	0.40	0.50	0.40	0.45
Hauling and laying 48-in. corrugated metal pipe, per ft.	0.40	0.70	0.35	0.48	1.25	1.00	0.50	0.50	0.45	0.50
Timber in culverts and bridges	.....	35.00	32.00	37.50	60.00	45.00	40.00	32.00	40.00	45.00
Ft. piling in bridges	.....	.....	0.50	0.60	0.50	0.80	0.85	0.50	0.40	0.60
5.55 mile grassing shoulders and slopes	25.00	100.00	75.00	30.00	70.00	40.00	115.00	30.00	40.00	100.00
7966 cu.yd. crushing, hauling, spreading local stone	1.00	0.90	1.00	0.55	0.90	1.15	1.10	0.90	0.75	1.30
21,703 cu.yd. unloading, hauling, spreading, shaping and maintaining gravel 1 mile free haul	0.60	0.50	0.55	0.48	0.80	0.65	0.70	0.65	0.50	0.55
47,881 cu.yd. gravel to be hauled ¼ mile beyond free haul	0.10	0.10	0.08	0.09	0.10	0.10	0.08	0.08	0.10	0.08
7.5 mile, 14 in. wide, 13.8 mile, 9 in. wide mile preparing and rolling subgrade, rolling, sprinkling and finishing gravel as per specifications	200.00	300.00	200.00	142.50	250.00	250.00	175.00	160.00	600.00	200.00
31,000 lb. hauling and placing steel I-beams and hand rails, including the hauling and placing of floor system	0.02	0.01	0.02	0.02	0.01	0.02¼	0.63	0.01	0.01	0.02
Cu.yd. sand or clay in place measured loose, where roadway is sand	0.30	0.65	0.30	0.38	0.55	0.90	0.60	0.34	0.40	0.40
Cu.yd. sand or clay in place measured loose, where roadway is clay	0.30	0.60	0.30	0.38	0.45	0.90	0.60	0.34	0.40	0.35
Sand clay or sand or clay hauled 100 ft. overhaul	.....	.....	0.02	0.02	0.03	0.05	0.05	0.01¼	0.02	0.02
Mixing, rolling, dragging and maintaining sand clay	150.00	200.00	200.00	150.00	300.00	300.00	100.00	60.00	164.30	180.00
Extended totals	$59,400	$55,633	$53,137	$41,894	$59,774	$70,543	$61,546	$54,048	$60,447	$54,819

Douglas, Ariz.—Lescher & Kibbey, Arch., Bank of Commerce Bldg., Phoenix, has been commissioned by the Board of Education to prepare plans for the construction of a high school. The estimated cost is $70,000.

Florence, Ariz.—Plans are being prepared by Lescher & Kibbey, Arch., Bank of Commerce Bldg., Phoenix, for the construction of a two-story, 75x140-ft. high school for the Union High School District The estimated cost is $55,000.

Spokane, Wash.—The Powell-Sanders Co. plans to rebuild its wholesale building, recently destroyed by fire with a loss of $150,000.

Tacoma, Wash.—Plans are being prepared for the construction of a six-story brick business block for the Tacoma Furniture & Outfitting Co. The estimated cost is $100,000.

Walla Walla, Wash.—Robert F. Tegen, Arch., Morgan Bldg., Portland, Ore., has been retained to prepare plans for the construction of a building for St. Mary's Hospital. The estimated cost is $150,000. Noted May 6

+Pendleton, Ore.—(Official)—The contract for the construction of a three-story wing at the State Hospital for the Insane has been awarded to OLSON & JOHNSON CO., Missoula, Mont., at $83,125. W. C. Knighton is Arch. Noted Feb. 18 and May 6.

Fresno, Calif.—Bids will be received until 2 p.m., June 8, by D. M. Barnwell, Clk., Bd. of Supervisors, for the construction of a brick exhibit building for the County of Fresno. Scott McKay is County Surveyor.

Hydepark, Calif.—The Winget Construction Co., Grant Bldg., Los Angeles, at $42,600, submitted the lowest bid for the construction of a grammar school. G. A. Howard, Arch., Grant Bldg., Los Angeles, prepared the plans.

Los Angeles, Calif.—The Board of Education has approved the plans prepared by Withey & Davis, Arch., Story Bldg., for the construction of a two-story school on Rowan Ave. Estimated cost, $45,000.

+Los Angeles, Calif.—The Board of Education has awarded the contract to M. S. YESBERG, 1650 Morton Ave., Los Angeles, at $41,860, for the construction of a school at 1327 East 20th St. Eisen & Son, Wilcox Bldg., is Arch. Noted Mar. 18.

Los Angeles, Calif.—Plans have been prepared by Walker & Vawter, Arch., Hibernian Bldg., for the construction of a two-story school on South Park and Manchester Ave. Estimated cost $45,000.

+Los Angeles, Calif.—A. S. & C. O"NEIL, Lankershim Bldg., Los Angeles, at $42,000, has been awarded the contract for the construction of a three-story apartment house at Toberman and 21st St. for Mrs. L. J. Hamer.

Los Angeles, Calif.—J. C. Austin, Arch., 1125 Baker-Detwiler Bldg., is preparing plans for the construction of a high school in the shape of the letter "H," on the Country Club Drive between Wilshire Blvd. and Pico St. The main section of the structure will be four stories, 60x342 ft., with four wings, two with three stories, 65x80-ft. and two with two stories, 60x65-ft. The estimated cost is $380,000.

Los Angeles, Calif.—(Official)—Bids will be received until June 10 by the Secretary of the Board of Education for the construction of a school on First and Vermont St. The estimated cost is $50,000. Hunt & Burns, 701 Laughlin Bldg., is Arch. Noted May 20.

+Pomona, Calif.—The contract for the construction of a five-story hotel on Third St. and Carey Ave. for W. M. Avis has been awarded to the MILWAUKEE BUILDING CO., Wright and Callender Bldg., Los Angeles. Estimated cost, $65,000.

+Redondo Beach, Calif.—The contract for the construction of a high school for the Redondo Union High School District has been awarded to the LOS ANGELES PLANING MILL CO., 1812 Industrial St., Los Angeles, at $102,760. Allison & Allison, Hibernian Bldg., Los Angeles, is Arch. Noted Feb. 18 and Mar. 4.

San Bernardino, Calif.—Plans are being prepared by Jeffrey & Schafer, Arch., Wesley Roberts Bldg., Los Angeles, for the construction of a building for the First Congregational Church. The estimated cost is $50,000. Noted May 6.

+San Diego, Calif.—The contract for the construction of a seven-story reinforced-concrete hotel on First St. for the Oregon Investment Co. of San Francisco, has been awarded to J. B. WARNER, Monadnock Bldg., San Francisco, at $326,045. Noted Feb. 25.

Santa Ana, Calif.—A. J. Cruickshank, S. J. Jackman, J. C. Metzgar and D. G. Cole are interested in a project to construct a hotel. The estimated cost is $109,000.

Stockton, Calif.—An armory will be constructed at the north end of the State Hospital property near California St. The estimated cost is $50,000. Lawrence Edwards is interested.

Taft, Calif.—An election will be held June 10 to vote on the question of issuing $60,000 in bonds. The proceeds will be used for the construction of a high school.

Toronto, Ont.—The Princess Theater, recently destroyed by fire with a loss of $100,000, will be rebuilt.

Winnipeg, Man.—The Winnipeg School Board plans an expenditure of $150,000 for the construction of additional schools at Winnipeg. The Commissioner of Buildings is preparing the plans.

BUYING OF MUNITIONS OF WAR

Orders placed with American factories for munitions of war in the last two months have exceeded the amount that even those familiar with the expenditures had set as an outside figure. The buying has been so enormous that all the machine shops making lathes have been cleaned out of machines and are unable to supply any for months to come. Shops which are only indifferently equipped for the manufacture of such material, are turning out shrapnel, and it is probable that plants in the United States are making at least 50,000 pieces of shrapnel a day. Canadian plants are making from a quarter to half as much more, and it is considered probable that within three months the capacity of the plants in the United States and Canada will be doubled. Three-inch 15-lb. shells made here, cost $18 each, ready to fire. On a large order placed by the Russian Government, the price was $15 to $16. In the army operations in northern France, 200,000 to 300,000 pieces of shrapnel are used daily, an expenditure of $25,000,000 to $40,000,000 a week for this item alone. For rifles, the capacity of the plants in the United States is being taxed to the utmost. Prior to the war, many of the army rifles used by European nations could be made and sold at a profit for $15. Now the price is $27.50 for the same rifle. Cartridges are the one thing which have not advanced in proportion, as their use is comparatively small. Cartridges now cost from $35 to $40 a thousand, compared with $25 a year ago. Some of the chemicals used for the manufacture of explosives have advanced exceedingly rapidly. Sodium chlorate is now 17c. per lb., compared with 8c. before the war began. Carbolic acid is now $1.35 compared with 7c. Benzol is $1.25 per gal. compared with 25c. Quicksilver, per flask, is $75, compared with $35 before the war, and chlorate of potash is 35c. per lb. compared with 8c. The effect of the heavy buying on the market has only just been felt; while most of the ammunition makers have covered their supplies for a year or two, the activities of the factories have just begun. Even should the war end suddenly, as many now believe, it is unlikely that there will be any large cancellations, as the European governments will want to replenish their arsenal stocks, which by this time must be sadly depleted.

The Cement Products Exhibition Co., Chicago, Ill., which is in charge of the ninth annual Cement Show, to be held Feb. 12 to 19, 1916, has elected officers as follows: Pres., B. F. Affleck; Vice-Pres., A. Y. Gowen; Treas., J. U. C. McDaniel; Sec., Robert F. Hall, 208 South La Salle St., Chicago.

The American Cement Tile Mfg. Co. has moved its New York office to 50 Church St.

T. A. McCarthy & Son, Lufkin, Tex., Consult., Designing and Superv. Engr., announces the installation of a testing laboratory. The firm is prepared to make both chemical and physical tests of clays, lime, cement, sand, gravel, and other materials, chemical tests and analyses of fluids, clays, oil, fertilizers, and animal and vegetable matter generally.

The Wright Machine Co. has recently been incorporated, and commenced business at Owensboro, Ky., May 1. This company succeeds the Gunther-Wright Machine Co., and will manufacture gas engines, excavating machines, and wet dredge machines, equipped with both steam and oil engines.

The Steel Plant of the International High Speed Steel Co., Rockaway, N. J., is now nearing completion, and it is expected that it will be in full operation by the latter part of June. The product will be confined to the highest qualities of tool steels, alloy steels, high-speed steels of all shapes and sizes. The company markets the "Bulldog" brand.

CALIFORNIA STATE HIGHWAY, SONOMA COUNTY
Division IV, Route 1, Section C

Bids were received Apr. 26 by the state Highway Commission, Forum Bldg., Sacramento, for the construction of a portion of the State Highway in Sonoma County, Division IV, Route 1, Section C, from: (A) L. F. Gerdetz, San Francisco; (B) W. B. Hunt & Son, Alameda; (C) Bates, Borland & Ayer, Oakland; (D) James Fitzpatrick, Sacramento; (E) Marin Rock Co., San Anselmo; (F) Hoffman & McLaren, Oakland; (G) Fairbanks & Baechtel, Willits; (H) Peterson & Grier, San Francisco; (I) Twohy Bros. Co., San Francisco; (J) Blanchard-Brown Co., San Francisco; (K) Engineer's Estimate. The state will furnish pipe railing for culverts, reinforcing-steel, corrugated iron pipe, portland cement, and sand and coarse aggregate for concrete, at an approximate cost of $31,568. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K
31,000 cu.yd. excavation, unclassified..	$0.55	$0.48	$0.68	$0.70	$0.49	$0.60	$0.75	$0.70	$0.48	$0.62	$0.50
260 lin.ft. 12-in. corrugated iron pipe..	0.50	0.50	0.50	0.50	0.40	0.40	0.60	0.50	0.30	0.55	0.50
200 lin.ft. 15-in. corrugated iron pipe..	0.60	0.50	0.60	0.60	0.55	0.50	0.70	0.60	0.35	0.65	0.60
400 lin.ft. 18-in. corrugated iron pipe..	0.70	0.50	0.70	0.75	0.65	0.60	0.90	0.75	0.50	0.76	0.70
140 lin.ft. 24-in. corrugated iron pipe..	0.80	0.50	0.70	1.00	0.75	0.75	1.35	1.00	0.60	1.00	0.80
110 lin.ft. 30-in. corrugated iron pipe..	1.00	0.50	0.80	1.25	0.90	1.00	1.85	1.20	0.70	1.25	1.10
310 cu.yd. concrete, Class B (culverts and monuments)................	10.00	10.00	12.50	12.00	8.05	9.00	12.50	11.00	9.00	10.00	8.50
7100 cu.yd. concrete pavement, Class B	3.10	3.35	2.90	4.00	2.73	3.10	3.50	3.70	2.64	3.80	3.25
7000 lin.ft. guard rail..............	0.40	0.50	0.35	0.40	0.30	0.25	0.40	0.30	0.38	0.30	0.30
146 monuments, hauling and setting..	1.00	0.50	1.00	1.00	1.60	1.00	1.00	1.50	1.00	2.50	0.50
Extended totals..................	$45,858	$45,893	$48,857	$57,593	$40.080	$45,955	$55,969	$54,521	$39,729	$51,619	$54,333

DORCHESTER BROOK SEWER, BOSTON, MASS.

✚Bids were received by the Sewer and Water Division of the Public Works Department, Boston, for the construction of the Dorchester Brook Sewer in private land and Judson St. between Brook Ave. Pl. and Brookford St., Dorchester, from: (A) WEST ROXBURY TRAP ROCK CO., Roxbury (awarded contract); (B) Anthony Baruffaldi; (C) M. Russo & Sons; (D) Henry Sprague Contracting Co.; (E) William J. Barry; (F) James J. Conway; (G) Peter Bompiani; (H) A. G. Tomasello; (I) Antony Cefalo; (J) McCarthy & Walsh; (K) George M. Bryne; (L) Coleman Bros.; (M) William Barrett Co.; (N) Peter W. Hill; (O) John Landis; (P) Charles Satorel; (Q) John Guarino; (R) Robert L. Barrett; (S) Hugh Nawn Contracting Co.; (T) Engineer's Estimate. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J
812 lin.ft. 15-in. pipe sewer	$0.50	$5.00	$0.50	$4.00	$0.00	$2.00	$1.54	$0.60	$0.50	$0.50
793 lin.ft. 12-in. pipe sewer	0.50	1.00	0.50	4.00	0.00	2.00	1.25	0.60	0.50	0.35
40 lin.ft. 12-in. pipe sewer under concrete and brick surface drain	0.50	1.00	0.50	2.00	0.00	4.00	1.79	0.60	1.00	2.40
12 lin.ft. 10-in. pipe sewer	2.00	1.00	0.50	2.00	2.00	2.00	1.79	2.00	1.00	2.00
6 lin.ft. 18-in. pipe sewer	1.00	1.00	0.50	2.50	2.00	2.00	2.00	0.50	1.00	1.00
780 lin.ft. 7 ft. 3½ in. x 6 ft. 8 in. concrete and brick sewer pipe	8.35	30.00	8.00	8.00	20.00	5.70	10.00	7.00	14.25	13.00
647 lin.ft. 5 ft. 9 in. x 5 ft. 3 in. concrete and brick sewer drain	6.35	10.40	6.75	6.00	17.00	5.70	8.00	5.00	10.75	11.50
137 lin.ft. 6 ft. 9 in. x 6 ft. 2 in. concrete and brick sever drain	8.60	17.00	8.00	9.00	20.00	5.70	7.50	7.70	14.25	16.25
16 lin.ft. 4 ft. 6 in. x 4 ft. 0 in. concrete and brick sewer	3.00	25.00	4.85	5.00	20.00	5.70	3.30	4.00	7.00	8.65
Earth excavation below grade per cu. yd	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Earth excavation above grade per cu. yd	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
1500 cu.yd. rock excavation	5.00	0.01	4.00	0.00	0.00	0.00	2.75	6.00	5.00	5.00
Gravel refill	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
135 M ft. b.m. spruce lumber	1.00	0.01	10.00	0.00	0.00	30.00	37.00	20.00	0.00	0.00
10 M ft. b.m. spruce lumber 2 in. planed and matched	0.01	0.01	5.00	45.00	0.00	50.00	43.00	30.00	63.00	0.00
15 M ft. b.m. spruce lumber 3 in. to 6 in. planed and grooved	0.01	0.01	5.00	50.00	0.00	60.00	80.00	40.00	0.00	0.00
5 M ft. b.m. pile caps platform	0.01	0.01	5.00	40.00	0.00	50.00	39.00	30.00	0.00	0.00
1600 lin.ft. pipe underdrain	0.01	0.01	0.15	0.20	0.00	0.00	0.45	0.10	0.00	0.00
2400 cu.yd. Class A concrete	7.00	0.01	7.50	7.50	5.00	8.00	5.75	8.00	7.50	7.00
40 cu.yd. Class A general concrete	7.00	0.01	7.50	7.50	0.00	7.00	6.00	8.00	10.00	0.00
Class A concrete mixed with hydrated lime	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
300 cu.yd. Class B concrete	5.00	0.01	6.75	7.00	5.00	6.50	5.50	6.00	0.00	6.50
275 cu.yd. Class C concrete	5.00	0.01	6.00	7.00	0.00	6.00	5.20	5.00	0.00	0.00
100 lin.ft. 10-in. pipe catch basin drain	1.00	0.75	0.50	0.50	0.50	1.00	1.00	1.00	1.00	1.00
100 lin.ft. pipe for chimneys	2.00	1.00	0.15	0.50	0.50	0.25	0.10	0.10	0.10	0.10
575 lin.ft. P.H. drain under concrete and brick sewer pipe	0.50	0.25	0.50	0.50	0.50	0.25	0.45	0.50	0.50	0.20
40 lin.ft. relaying existing house drain	2.00	1.00	0.50	0.50	0.00	1.00	5.75	0.50	2.00	1.00
25 lin.ft. relaying other existing drain, house or catch basin drain	2.00	0.01	0.50	0.50	0.00	1.00	6.00	0.50	2.00	0.00
Y's placed	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Slants or connections placed	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
135 slants or connections placed, new work	0.01	0.10	0.50	0.25	0.10	0.25	2.50	0.25	0.25	0.10
40 lin.ft. laying and connecting 3 in. to 8 in. metal pipe	1.00	0.01	0.50	0.50	0.00	1.00	0.60	0.50	1.00	0.00
Steel rods or bars	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
8 man holes on sewer	40.00	75.00	75.00	70.00	50.00	50.00	49.00	80.00	80.00	100.00
5 man holes on surface drain	40.00	50.00	40.00	65.00	50.00	40.00	49.00	60.00	50.00	40.00
3 special inlet man holes	50.00	75.00	85.00	85.00	50.00	70.00	150.00	100.00	100.00	100.00
1 specially combined sewer and gate house	75.00	75.00	125.00	100.00	75.00	100.00	150.00	150.00	100.00	175.00
1 manhole built over old sewer	50.00	60.00	65.00	60.00	50.00	50.00	100.00	80.00	100.00	75.00
4 catch basins built	60.00	60.00	60.00	50.00	50.00	50.00	37.00	60.00	60.00	55.00
Existing manhole inverts and retaining wall	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
120 cu.yd. brick masonry	10.00	15.00	14.75	15.00	15.00	15.00	14.25	22.00	15.00	17.00
Catch basin traps, taken out, reset	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Guttermouths	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3 connections between new and existing conduits	5.00	20.00	5.00	10.00	5.00	10.00	100.00	10.00	25.00	10.00
Single strength sewer pipe	80%	75%	70%	68%	70%	70%	70%	66%	70%	70%
Double strength sewer pipe	80%	50%	70%	50%	50%	60%	70%	66%	30%	65%
Protecting of buildings	200.00	200.00	5.00	300.00	0.00	2500.00	400.00	100.00	0.00	1000.00
420 lin.ft. removing old sewer or drains	0.50	0.01	0.15	1.00	0.50	5.00	0.59	0.10	0.00	0.00
Extended totals	$44,470	$46,538	$47,255	$47,739	$47,868	$50,309	$51,222	$52,705	$52,759	$53,242

	K	L	M	N	O	P	Q	R	S	T
812 .in.ft. 15 in. pipe sewer	$0.90	$0.50	$0.75	$0.20	$4.53	$2.00	$0.75	$2.25	$0.75	$1.00
793 lin.ft. 12 in. pipe sewer	0.70	0.45	0.75	0.20	4.50	2.00	0.65	2.25	0.60	0.75
40 lin.ft. 12 in. pipe sewer under concrete and brick surface drain	1.00	2.25	2.00	1.00	4.61	2.00	0.50	2.25	4.65	0.75
12 lin.ft. 10 in. pipe sewer	1.00	2.00	2.00	1.00	3.23	2.00	0.50	2.25	4.35	1.00
6 lin.ft. 18 in. pipe sewer	1.00	2.00	2.00	2.00	5.00	2.00	1.00	2.50	5.00	0.25
780 lin.ft. 7 ft. 3½ in. x 6 ft. 8 in. concrete and brick sewer pipe	12.60	11.00	12.00	15.00	10.20	8.00	13.00	11.00	11.75	11.00
647 lin.ft. 5 ft. 9 in. x 5 ft. 3 in. concrete and brick sewer drain	9.65	8.50	9.00	13.00	8.10	9.00	13.00	9.50	9.00	9.00
137 lin.ft. 6 ft. 9 in. x 6 ft. 2 in. concrete and brick sewer drain	14.30	13.00	14.00	15.00	11.74	10.00	13.00	10.50	12.00	11.50
16 lin.ft. 4 ft. 6 in. x 4 ft. 0 in. concrete and brick sewer	7.80	6.00	5.00	8.00	8.66	5.00	4.00	7.00	6.90	1.00
Earth excavation below grade per cu.yd	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	.....
Earth excavation above grade per cu.yd	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	....
1500 cu.yd. rock excavation	2.00	3.80	7.00	5.00	3.00	6.50	5.00	6.00	4.50	4.00
Gravel refill	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	.....
135 M ft. b.m. spruce lumber	25.00	16.00	25.00	10.00	24.00	26.00	25.00	28.00	20.00	27.00
10 M ft. b.m. spruce lumber 2 in. planed and matched	30.00	30.00	35.00	30.00	30.00	26.00	35.00	35.00	40.00	34.00
15 M ft. b.m. spruce lumber 3 in. to 6 in. planed and grooved	30.00	50.00	0.00	30.00	40.00	40.00	40.00	40.00	60.00	36.00
5 M ft. b.m. pile caps platform	40.00	30.00	35.00	35.00	30.00	0.00	0.00	28.00	35.00	40.00
1600 lin.ft. pipe underdrain	0.50	0.20	0.25	0.15	0.23	0.15	0.50	0.35	0.25	0.10
2400 cu.yd. Class A concrete	7.00	7.50	7.00	7.00	7.46	8.00	8.00	8.00	9.00	7.35
40 cu.yd. Class A general concrete	7.00	7.50	7.00	7.00	6.92	8.00	6.00	7.00	9.00	6.80
Class A concrete mixed with hydrated lime	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	.....
300 cu.yd. Class B concrete	6.00	6.50	5.50	6.00	6.00	6.00	5.00	6.00	8.50	6.50
275 cu.yd. Class C concrete	5.00	5.50	0.00	5.50	5.00	5.00	5.00	4.50	8.00	5.00
100 lin.ft. 10 in. pipe catch basin drain	1.00	1.00	1.00	1.00	1.85	0.50	1.00	1.00	2.00	0.60
100 lin.ft. pipe for chimneys	0.15	0.15	0.35	0.35	0.18	0.50	0.50	1.00	0.25	0.10
575 lin.ft. P.H. drain under concrete and brick sewer pipe	1.00	0.80	1.00	1.00	2.00	1.00	0.50	0.75	0.75	0.50
40 lin.ft. relaying existing house drain	1.00	0.80	1.00	1.00	1.00	0.00	0.50	1.00	1.50	0.75
25 lin.ft. relaying other existing drain, house or catch basin drain	1.00	0.80	1.00	1.00	1.50	0.00	0.50	1.00	1.50	0.75
Y's placed	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	.....
Slants or connections placed	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	.....
135 slants or connections placed, new work	0.10	0.10	0.35	0.25	0.65	1.00	1.00	0.25	0.15	0.15
40 lin.ft. laying and connecting 3 in. to 8 in. metal pipe	1.00	0.20	1.00	1.00	0.30	1.00	0.50	1.00	0.50	0.75
Steel rods or bars	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	....
8 man holes on sewer	80.00	135.00	75.00	95.00	75.00	70.00	75.00	90.00	125.00	60.00
5 man holes on surface drain	50.00	65.00	50.00	50.00	45.00	40.00	40.00	50.00	50.00	40.00
3 special inlet man holes	80.00	135.00	90.00	90.00	100.00	70.00	65.00	90.00	125.00	65.00
1 specially combined sewer and gate house	80.00	135.00	100.00	125.00	100.00	100.00	75.00	100.00	150.00	75.00
1 man hole built over old sewer	50.00	50.00	50.00	75.00	60.00	70.00	40.00	50.00	45.00	55.00
4 catch basins built	55.00	55.00	60.00	60.00	60.00	50.00	60.00	50.00	75.00	55.00
Existing man hole inverts and retaining wall	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	.....
120 cu.yd. brick masonry	18.00	16.00	15.00	16.00	120.00	14.00	12.00	16.00	20.00	15.00
Catch basin traps, taken out, reset	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	.....
Guttermouths	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	.....
3 connections between new and existing conduits	5.00	5.00	25.00	10.00	50.00	25.00	25.00	25.00	30.00	15.00
Single strength sewer pipe	65%	60%	72%	72%	75%	70%	73%	75%	50%	68%
Double strength sewer pipe	50%	54%	62%	48%	60%	60%	50%	75%	50%	55%
Protecting of buildings	50.00	600.00	100.00	100.00	500.00	1000.00	1000.00	200.00	100.00	500.00
420 lin.ft. removing old sewer or drains	1.00	0.25	0.25	0.50	0.25	0.00	0.50	1.00	0.50	0.30
Extended totals	$54,120	$54,983	$56,459	$58,954	$59,139	$59,959	$62,204	$62,874	$63,707	$54,666

VESSELS UNDER CONSTRUCTION, UNITED STATES NAVY

The Navy Department, Bureau of Construction and Repairs, reports the following vessels under construction and the progress toward completion:

		Per Cent. of Completion			
		May 1, 1915		Apr. 1, 1915	
Name, Type and Number of Vessel	Contractor	Total	On Ship	Total	On Ship
Battleships:					
36 "Nevada"	Fore River Shipbuilding Co.	91.7	90.9	89.7	87.9
37 "Oklahoma"	New York Shipbuilding Co.	92.9	92.9	90.7	90.6
38 "Pennsylvania"	Newport News Shipbuilding Co.	76.9	72.1	73.9	68.5
39 "Arizona"	New York Navy Yard	59.2	55.4	56.4	52.0
40 "California"	New York Navy Yard	00.0	00.0	00.0	00.0
41 "Mississippi"	Newport News Shipbuilding Co.	17.9	13.3	14.6	...
42 "Idaho"	New York Shipbuilding Co.	25.2	10.0	20.3	6.9
Destroyers:					
51 "O'Brien"	Wm. Cramp & Sons	97.3	97.3	96.9	96.9
52 "Nicholson"	Wm. Cramp & Sons	Delvd. 4/30/15		96.9	96.8
53 "Winslow"	Wm. Cramp & Sons	92.0	91.8	91.4	91.2
55 "Cushing"	Fore River Shipbuilding Co.	92.0	91.9	88.0	87.6
56 "Ericsson"	New York Shipbuilding Co.	96.3	96.3	95.4	95.4
57 "Tucker"	Fore River Shipbuilding Corporation	61.7	57.7	49.5	45.2
58 "Conyngham"	Wm. Cramp & Sons	67.5	65.3	64.2	62.1
59 "Porter"	Wm. Cramp & Sons	66.3	63.9	62.5	60.2
60 "Wadsworth"	Bath Iron Works	91.2	91.2	85.1	85.0
61 "Jacob Jones"	New York Shipbuilding Co.	68.0	67.5	66.3	64.8
62 "Wainwright"	New York Shipbuilding Co.	66.9	66.4	63.8	62.3
63	Fore River Shipbuilding Corporation	19.5	12.7	11.7	...
64	Fore River Shipbuilding Corporation	18.6	9.8	11.7	...
65	Bath Iron Works	10.5	3.9	7.6	...
66	Bath Iron Works	10.5	3.9	7.8	...
67	Wm. Cramp & Sons	7.3	1.5	4.2	...
68	Mare Island Navy Yard	0.0	...	0.0	...
Destroyer Tenders:					
2 "Melville"	New York Shipbuilding Co.	88.0	87.9	83.4	83.1
Submarine Tenders:					
2 "Bushnell"	Seattle Construction & Drydock Co.	88.3	83.5	86.2	81.2
Fuel Ships:					
13 "Kanawha"	Mare Island Navy Yard.	100.0	100.0	99.2	99.2
14 "Maumee"	Mare Island Navy Yard.	87.3	86.7	81.3	80.7
15 "Cuyama"	Mare Island Navy Yard.	0.0	0.0	...	...
Miscellaneous:					
Supply Ship No. 1	Boston Navy Yard	13.4	4.4	11.5	2.8
Transport No. 1	Phila. Navy Yard	13.4	6.3	11.5	...
Panama Canal Colliers:					
"Ulysses"	Maryland Steel Co.	Delvd. 4/17/15		97.5	97.0
"Achilles"	Maryland Steel Co.	96.8	92.9	90.3	84.9
Submarines:					
27 G-2	*Lake T. B. Co. (Bridgeport)	89.7	89.7	89.7	89.7
31 G-3	*Lake T. B. Co. (Bridgeport)	88.6	88.4	88.6	88.4
40 L-1	Electric Boat Co. (Quincy)	95.8	95.8	92.2	92.0
41 L-2	Electric Boat Co. (Quincy)	97.0	97.0	90.2	89.9
42 L-3	Electric Boat Co. (Quincy)	90.3	90.3	88.9	88.3
43 L-4	Electric Boat Co. (Quincy)	90.0	90.0	85.8	84.2
44 L-5	Lake T. B. Co. (Bridgeport)	66.8	62.6	63.0	58.9
45 L-6	Lake T. B. Co. (Long Beach, Calif.)	59.0	53.6	55.8	50.4
46 L-7	Lake T. B. Co. (Long Beach, Calif.)	57.2	51.4	54.7	48.8
47 M-1	Electric Boat Co. (Quincy)	73.3	68.1	70.0	64.7
48 L-8	Portsmouth, N. H., Navy Yard	26.3	24.2	18.2	15.5
49 L-9	Electric Boat Co. (Quincy)	66.0	58.1	60.7	52.3
50 L-10	Electric Boat Co. (Quincy)	64.3	55.3	59.9	50.5
51 L-11	Electric Boat Co. (Quincy)	52.7	42.0	46.4	36.0
52 ...	Electric Boat Co. (Quincy)	0.0	...	...	...
53 N-1	Electric Boat Co. (Seattle)	0.0	...	...	...
54 N-2	Electric Boat Co. (Seattle)	0.0	...	...	...
55 N-3	Electric Boat Co. (Seattle)	0.0	...	...	...
56 N-4	Lake T. B. Co. (Bridgeport)	14.5	11.4	9.4	...
57 N-5	Lake T. B. C. (Bridgeport)	11.9	8.6	...	...
58 N-6	Lake T. B. Co. (Bridgeport)	11.2	7.9	...	...
59 N-7	Lake T. B. Co. (Bridgeport)	11.2	7.9	...	...

*Contracts forfeited, vessels being completed by New York Yard.

CATALOG NOTICES

The Jeffrey Mfg. Co., Columbus, Ohio. Bulletin No. 165. Wagon and truck loaders for crushed stone, sand, etc. Illustrated, 16 pp., 6x9 in. Bulletin No. 166. Wagon and truck loaders for bituminous and anthracite coal. Illustrated, 24 pp., 6x9 in.

Link-Belt Co., Philadelphia, Penn. Book No. 210. Wagon and truck loaders for coal, coke, stone, sand, etc. Illustrated, 48 pp., 6x9 in.

Dodge Sales and Engineering Co., Mishawaka, Ind. Catalog. Gearing. Illustrated, 126 pp., 6x9 in.

Kerr Turbine Co., Wellsville, N. Y. Bulletin No. 52. Economy turbo-pumps. Illustrated, 24 pp., 6x9 in.

The Jarvis-Morse Corp., 90 West St., New York. Catalog. Morse destructor. Illustrated, 20 pp., 6x9 in.

Smith Engineering Works, Milwaukee, Wis. Pamphlet. Portable crushing plants. Illustrated, 24 pp., 6x9 in.

Hanna Engineering Works, Chicago, Ill. Catalog No. 3. Pneumatic riveters. Illustrated, 64 pp., 6x9 in.

Kennedy-Stroh Corporation, 120 Broadway, New York. Catalog Section B. Ore milling, cyaniding and smelting machinery. Illustrated, 86 pp., 6x9 in.

The Marion Steam Shovel Co., Marion, Ohio. Catalog No. 93. "Marion Reliability and Your Profits." Illustrated, 48 pp., 5½x8 in.

Smooth-On Mfg. Co., 572-74 Communipaw Ave., Jersey City, N. J. Pamphlet No. 4. Smooth-On Iron Cement No. 7 for waterproofing brick and concrete construction. Illustrated, 4 pp., 6x9 in.

Ohio Locomotive Crane Co., Bucyrus, Ohio. Catalog. Locomotive cranes. Illustrated, 56 pp., 8x10½ in.

The Holt Mfg. Co., Inc., Stockton, Calif. Bulletin A 60-108. Holt Caterpillar "45." Illustrated, 32 pp., 7x10 in.

Myers-Whaley Co., Knoxville, Tenn. Catalog No. 5. Shoveling machines for underground and surface work. Illustrated, 28 pp., 8½x10 in.

Hydrated Lime Bureau, Oliver Bldg., Pittsburgh, Penn. Pamphlet. "Hydrated Lime for Concrete." Four pp., 3½x6 in.

CALIFORNIA STATE HIGHWAY, MONTEREY COUNTY
Division V, Route 2, Section E

Bids were received Apr. 26 by the State Highway Commission, Forum Bldg., Sacramento, for constructing Division V, Route 2, Section E, of the State Highway, in Monterey County, from: (A) James Fitzpatrick, Sacramento; (B) W. A. Dontanville, Paso Robles; (C) Highway Paving & Construction Co., Palo Alto; (D) Bent Bros., Los Angeles; (E) Engineer's Estimate. The state furnishes pipe railing for culverts, reinforcing-steel, corrugated iron pipe and portland cement, to cost $25,467. The item bids were as follows:

	A	B	C	D	E
9900 cu.yd. excavation, unclassified	$0.60	$0.49	$0.60	$0.90	$0.30
600 lin.ft. 12-in. corrugated iron pipe	0.60	0.50	0.50	0.53	0.50
60 lin.ft. 15-in. corrugated iron pipe	0.75	0.50	0.75	0.60	0.55
30 lin.ft. 18-in. corrugated iron pipe	1.00	0.50	1.00	1.00	0.60
34 lin.ft. 36-in. corrugated iron pipe	2.00	1.00	1.00	2.00	1.00
53 cu.yd. concrete, Class B (culverts and monuments)	14.00	15.00	10.50	20.00	12.00
7185 cu.yd. concrete pavement, Class B	8.00	11.75	6.15	8.46	7.50
600 lin.ft. guard rail	0.40	0.50	0.40	1.00	0.40
60 monuments, hauling and setting	1.00	1.00	1.00	1.25	0.50
Extended totals	$64,965	$90,809	$51,393	$71,882	$58,148

STORM-WATER SEWERS, READING, PENN.

✚Bids were received Apr. 30 by the City Council, Reading, Penn., for the construction of storm-water sewers on Elm and West Elm St. from the Schuylkill Canal to Rose St. from: (A) Fehr & O'Rourke; (B) CANTRELL CONSTRUCTION CO., Real Estate Trust Bldg., Philadelphia (awarded contract); (C) James Ferry & Sons, Inc.; (D) Union Paving Co.; (E) Heyman & Goodman Co. The item bids were as follows:

	A	B	C	D	E
200 lin.ft. 5-in. circular concrete sewer in open cut	$22.20	$20.80	$32.75	$39.00	$20.00
2300 lin.ft. 5-in. circular concrete sewer, tunnel lining	22.20	17.28	22.35	22.10	24.40
82 lin.ft. 4x7 ft. 10-in. reinforced concrete sewer	41.25	61.00	45.00	82.00	60.00
50 lin.ft. silt basin	27.00	90.00	40.00	48.00	43.00
20 lin.ft. 18-in. vitrified pipe sewer	2.25	3.00	3.50	2.45	6.00
300 lin.ft. 15-in. vitrified pipe sewer	1.75	2.50	3.00	2.45	4.00
100 lin.ft. 10-in. vitrified pipe sewer	1.25	1.25	2.00	1.60	3.60
24½ lin.ft. reinforced 2 ft. 8 in. x 4 to 5-ft. junction chamber	19.50	9.00	30.00	46.50	20.00
24½ lin.ft. reinforced 5 to 6 ft. 8 in. x 7½-ft. junction chamber	37.50	45.00	50.00	47.00	30.00
130 vert. ft. reinforced-concrete manhole	27.30	10.80	6.00	68.00	160.00
20 vert. ft. concrete manhole, storm sewer	6.00	5.00	5.00	10.00	30.00
20 vert. ft. concrete manhole, house sewer	6.00	5.00	5.00	10.00	30.00
1 plate "C" basin, 8-in. radius, with connection	125.00	120.00	100.00	100.00	120.00
4 plate "C" basins, 6-in. radius, with connection	125.00	115.00	90.00	80.00	120.00
7 plate "I" basins, 6 in. long, with connection	125.00	110.00	85.00	50.00	100.00
30 M ft. b.m. lumber in place	20.00	1.00	25.00	45.00	30.00
100 cu.yd. excavation, unclassified, including backfill	1.50	1.00	2.50	3.50	3.00
1 cu.yd. concrete in place	6.50	8.00	......	16.00	25.00
Extended totals, including 10% for contingencies	$75,206	$64,631	$76,791	$90,986	$104.082

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

BUILDING OUTLOOK MORE PROMISING

For the first time this year the contemplated building operations from plans filed aggregate a larger total than in the corresponding month last year. In 69 cities, all over the United States, the cost, from plans filed in May, amounts to $69,326,000, compared with $67,477,000 in the same month last year.

In 22 cities in the Eastern States there is a gain compared with the corresponding month last year of 22%. This compares with one of 16% in April and about 4% in March.

The Southern States, are recovering from the depression, the loss last month only amounting to $1,500,000, compared with $6,500,000 for the first five months of the year. In the Central States the loss in 25 cities aggregates $1,000,000 compared with a loss of $10,000,000 for the first five months. In the Western States there are unmistakable signs of recovery, a loss of $2,000,000 last month compares with one of $21,000,000 for the first five months of the year.

EASTERN STATES

	Month of May		First Five Months of Year	
	1915	1914	1915	1914
Albany, N. Y.	$406,580	$569,565	$1,652,585	$3,023,775
Bridgeport, Conn.	1,119,354	330,770	3,430,503	1,531,652
Buffalo. N. Y.	1,222,000	1,124,000	3,930,000	3,995,000
Elizabeth, N. J.	99,264	189,045	458,845	576,480
Hartford, Conn.	691,600	430,159	2,301,404	1,714,699
Hoboken, N. J.	62,130	144,405	493,920	503,527
Jersey City, N. J.	616,908	419,375	2,280,778	1,572,091
Newark, N. J.	981,745	809,288	3,870,082	3,485,817
New Bedford, Mass.	271,300	278,975	1,465,082	1,615,424
New Haven, Conn.	318,740	307,200	2,416,540	1,538,139
New York N. Y.				
Bronx	4,634,950	1,357,412	14,724,425	11,252,603
Brooklyn	3,313,740	3,456,200	8,203,890	17,305,600
Manhattan	13,566,625	7,065,900	36,348,390	22,883,390
Queens	1,964,005	2,177,010	8,271,471	8,269,512
Paterson. N. J.	123,882	173,471	456,393	662,585
Philadelphia, Penn.	2,868,840	6,250,000	15,192,540	17,547,825
Pittsburgh, Penn.	937,449	1,592,209	2,992,834	6,890,655
Portland, Maine	202,855	204,980	......	......
Reading, Penn.	28,775	73,650	412,675	842,625
Rochester, N. Y.	1,001,455	1,343,781	3,788,036	4,002,197
Scranton, Penn.	141,933	104,161	458,629	477,006
Springfield, Mass.	932,818	775,616	2,817,651	2,180,329
Syracuse, N. Y.	257,261	246,805	1,428,366	837,985
Utica, N. Y.	158,705	184,795	888,500	562,185
Wilkes-Barre, Penn.	149,644	53,978	......	....
Totals	$36,071,958	$29,662,750	$118,283,539	$112,708,916

SOUTHERN STATES

	Month of May		First Five Months of Year	
	1915	1914	1915	1914
Atlanta, Ga.	$337,934	$732,299	$1,797,445	$1,847,844
Birmingham, Ala.	192,735	288,998	725,879	1,310,422
Chattanooga, Tenn.	45,038	78,400	192,450	573,395
Dallas, Tex.	278,335	540,100	1,382,390	2,894,618
Ft. Worth, Tex.	57,050	215,570	400,805	1,045,238
Houston, Tex.	108,604	476,359	724,270	1,581,141
Louisville, Ky.	295,150	459,830	1,455,385	2,040,315
Memphis, Tenn.	228,490	304,645	1,216,318	1,731,870
New Orleans, La.	297,681	204,587	1,075,959	1,062,391
Norfolk, Va.	155,578	164,938	792,084	1,142,013
Richmond, Va.	396,300	370,034	1,470,264	1,927,284
Washington, D. C.	992,670	1,054,404	4,097,677	4,705,492
Totals	$3,385,565	$4,890,164	$15,330,926	$21,862,023

CENTRAL STATES

	Month of May		First Five Months of Year	
	1915	1914	1915	1914
Akron, Ohio	$322,035	$364,765	$1,197,790	$1,574,745
Canton, Ohio	216,575	131,650	694,070	609,095
Cedar Rapids, Iowa	181,000	321,000	....	....
Chicago, Ill.	7,902,900	6,919,150	32,659,550	34,320,900
Cincinnati, Ohio	1,102,425	1,181,715	3,727,029	3,907,375
Cleveland, Ohio	5,151,909	2,201,820	15,100,334	11,562,820
Columbus, Ohio	911,785	841,000	2,134,490	2,595,205
Davenport, Iowa	63,000	142,312	300,682	950,185
Des Moines, Iowa	280,880	202,465	742,863	824,093
Duluth, Minn.	294,148	340,365	973,248	1,429,377
Evansville, Ind.	143,592	168,186	770,602	685,010
Ft. Wayne, Ind.	157,875	353,375	....	....
Grand Rapids, Mich.	379,996	304,759	1,123,191	2,103,281
Indianapolis, Ind.	493,930	1,547,787	2,734,447	4,142,167
Kansas City, Kan.	64,575	109,106	468,260	485,227
Kansas City, Mo.	886,215	1,177,915	4,144,190	5,368,175
Milwaukee, Wis.	1,188,700	1,641,584	3,918,019	4,610,788
Minneapolis, Minn.	1,755,200	3,160,685	6,375,360	8,169,400
Omaha, Neb.	889,385	1,146,853	2,060,840	2,462,668
Peoria, Ill.	231,280	262,015	935,510	1,068,025
St. Louis, Mo.	937,676	1,496,603	4,989,008	6,443,254
St. Paul, Minn.	1,309,656	1,503,214	4,458,506	5,937,438
Toledo, Ohio	553,155	792,159	3,267,359	2,962,525
Youngstown, Ohio	244,055	414,864	1,017,492	1,187,301
Totals	$25,661,947	$26,705,347	$93,793,440	$103,399,054

WESTERN STATES

	Month of May		First Five Months of Year	
	1915	1914	1915	1914
Denver, Colo.	$434,270	$218,030	$1,284,695	$1,190,566
Los Angeles, Calif.	1,168,983	1,478,703	5,281,200	8,106,024
Oakland, Calif.	350,035	366,728	1,925,694	1,987,274
Portland, Ore.	432,065	643,880	2,179,665	3,346,475
Salt Lake City. Utah	279,791	300,914	975,383	1,163,714
San Diego, Calif.	69,029	329,616	584,584	1,360,299
San Francisco, Calif.	947,115	1,781,148	5,675,260	19,368,783
Seattle, Wash.	353,820	809,405	2,643,065	4,720,690
Spokane, Wash.	130,471	103,542	473,566	462,657
Tacoma, Wash.	49,998	187,391	406,686	707,487
Totals	$4,209,577	$6,219,357	$21,429,798	$42,413,960

PRICE CHANGES

Cement—Manufacturers of cement selling in the New York market have advanced their quotation to $1.25 New York. This seems to be fairly well held in this market, although business is extremely light. There seems to be no especial reason for the advance save the desire on the part of manufacturers to get a better price and the knowledge that some of the smaller concerns had all the business booked that they could comfortably take care of for the time being.

Concrete Aggregate—Some very keen competition in the crushed-stone field is coming from a new interest in the New York market, particularly a New England concern, and prices have been forced down to levels not reached in a number of years. There seems to be good foundation for the report that a sale of crushed stone was made, delivered alongside of dock New York, at 65c. per cu.yd., and other quotations have been made slightly above this figure. The very low price of crushed stone has also forced down the price on gravel, and sales have been made at approximately the same figure as crushed stone. It is difficult to secure any kind of a quotation on subway gravel, for the reason that so many long-time contracts are running that the manufacturers still selling it are unwilling to make any contracts for this special material.

RAILWAYS—STEAM AND ELECTRIC

Maine—Bangor Ry. & Electric Co.—The Council of Bangor has granted a franchise to this company to double track its line on Union St. C. H. Johnson, Bangor, is Supt. Ry.

Massachusetts—Bay State St. Ry. Co.—This company has applied for a franchise to improve its line on Walley St. from Gladstone St. to Waldemar Ave., East Boston. R. S. Goff, Boston, is Vice-Pres. and Gen. Mgr.

Connecticut—Norwich, Colchester & Hartford Traction Co. —The charter of this company has been amended and the time extended in which to complete its proposed electric railway from Norwich to Hartford, Conn. T. C. Murphy, F. Cronin and C. S. Holbrook, Norwich, are interested. Noted Jan. 21.

New York—International Ry. Co. — This company will double-track its line on Virgil Ave. from Hertel to Kenmore Ave. in Buffalo. J. C. Sheldon, Buffalo, is Pur. Agt.

New York—International Ry. Co.—This company has applied to the Council of Buffalo for a franchise to construct a line on Michigan St. from Elk to Ohio St. and westerly along Ohio St. J. C. Sheldon, Buffalo, is Pur. Agt.

New York—See item under "Miscellaneous—Laying Tracks and Repairing Pier."

Pennsylvania—Phœnixville, Valley Forge & Strafford Electric Ry. Co.—This company is considering plans for the extension of its electric railway lines from Phœnixville into Montgomery County. Thomas E. O'Conell, Phœnixville, is Pres. and Gen. Mgr. Noted Mar. 18.

Maryland—United Ry. & Electric Co.—This company has applied to the City Council of Baltimore for a franchise to divert its Mt. Washington line from Calvert St. to Charles St. between Center and German St. Mason D. Pratt, Baltimore, is Ch. Engr.

✚Virginia—Radford-Willis Southern Ry.—This company has awarded the contract for the construction of its proposed line from Radford to Willis, Va., about 25 miles, to the WILLIAMS BROS. CONSTRUCTION CO. Noted Apr. 1.

West Virginia—Plans have been submitted to the Raleigh County Business Men's Association by H. G. Scott, Charleston, W. Va., Gen. Mgr., of the Virginian Power Co., for the route of the electric railway from Fayette Station, on the Chesapeake & Ohio Ry., to Beckley, W. Va., about 35 miles, via Mount Hope, Oak Hill, Glen Jean, Fayetteville and other points. C. L. Beckner, T. E. Bibb and Ernest Chilson Beckley, were appointed members of the Committee on plans.

West Virginia—The Charleston Interurban R.R. Co. will expend $750,000 in extending its line from Charleston to Montgomery, W. Va., about 25 miles. S. M. Gallaher, Charleston, is Pur. Agt. and Ch. Engr.

Tennessee—Cumberland R.R. Co.—See item under Kentucky.

Kentucky—The Asher Lumber Co., Barbourville, Ky., will construct a logging road in the Wolf Pen section of Little Brush Creek, Knox County, Ky.

Kentucky—Cumberland R.R. Co.—This company plans to construct a line from Warren, Ky., to Jellico, Tenn., about 18 miles. T. H. Hayden, Artemus, Ky., is Gen. Mgr.

Kentucky—Cumberland & Manchester R.R.—This company, recently chartered, plans to award contracts about June 15 for the construction of its line from Barbourville to Manchester, about 25 miles. C. L. Heidrick, Brookville, Penn., is Pres. Noted Apr. 29.

Ohio—John C. Lake, Bigprairie, Ohio, is interested in the construction of an electric railway from Custaloga to Bigprairie.

Ohio—East Linden Traction Co.—This company has applied to the Council of Columbus for a franchise to construct a cross-town line in North Columbus.

Indiana—John T. Oliphant, Vincennes, Ind., is interested in the construction of an electric railway to connect Bicknell, Bruceville, Aliceville and Vincennes.

Illinois—Southern Traction Co. of Illinois—This company plans to resume work soon on the construction of its line across the municipal bridge in East St. Louis. The company proposes to operate an electric line through the coal fields of Illinois to Duquoin, passing through several important cities. H. C. Begole, St. Louis, Mo., is Secy.

Illinois—Aurora, Plainfield & Joliet Ry. Co.—This company plans to double-track its line on North Chicago St. in Joliet, Ill.

Illinois—Murphysboro & Southern Illinois Ry. Co.—Work will soon be started by this company on the construction of its proposed electric railway from Murphysboro to Carbondale, about eight miles. A. B. Minton, Murphysboro, is Pres. Noted Jan. 28 and Feb. 11.

Iowa—Keokuk-Jefferson City Electric Ry. Co.—Surveys have been made by this company for the construction of an electric railway from Keokuk to Newark. It is proposed to build an electric railway between Keokuk, Iowa, and Jefferson City, Mo., via Wayland, Williamtown, Labell, Newark, Bethel, Shelbyville, Shelbina, Paris, Mexico and Fulton. H. W. Knight, Chicago, Ill., is interested.

Minnesota—See item under "Miscellaneous"—Dredging—St. Paul, Minn.

Missouri—Kansas City Connecting R.R.—The State Public Service Commission has granted permission to this company to construct seven miles of tracks into the stockyards. The proposed improvements will cost about $2,000,000. Four and one-half miles of the tracks will be constructed in Missouri and two and one-half miles in Kansas. This will necessitate a subway under the Union Pacific tracks at the Kaw River Bridge.

Missouri—According to press reports surveys are being made for the construction of a railway to connect Siloam Springs with Pomona, Bakersfield and Gainesville. N. O. Tate, Norton, Kan., and B. J. Boyce, West Plains, Mo., are interested.

Missouri—Metropolitan St. Ry. Co.—The City Council of Kansas City, Mo., has granted permission to this company to extend its lines on Broadway, Prospect and Woodland Ave., 12th, 24th and 31st St. A. E. Harvey, Kansas City, is Ch. Engr.

Arkansas—A company is being organized to construct a railway from Melbourne, Ark., to a connection with the St. Louis, Iron Mountain & Southern R.R., about seven miles.

Texas—Oklahoma & Texas Southern Ry.—Plans are being considered by this company for the extension of its line from Bowie to Forestburg, Krum and Denton, Tex., about 50 miles. W. A. Squire, Henrietta, Tex., is interested.

Oklahoma—Surveys are being made for the construction of an electric railway from Bristow to Drumright and from Bristow to Okmulgee, Okla. W. Mathews, St. Louis, Mo., is interested.

Idaho—Lewiston, Nezperce & Eastern Ry.—This company, recently incorporated, is making preliminary arrangements for the construction of its proposed line from Lewiston to Nezperce and central Idaho. Z. A. Johnson, Lewiston, is interested. Noted Apr. 15.

Utah—Southwestern & Pacific Ry.—Surveys will soon be started by this company for the construction of a railway from Salt Lake City through the southern portion of Utah to San Diego, Calif. D. C. Collier, San Diego, is Pres. and R. E. Clapp, Salt Lake City, is Consult. Engr. Noted May 7, 1914.

Washington—Gray's Harbor Ry. & Light Co.—Plans are being considered by this company for the extension of its North Hoquiam branch from its present terminus at Lytle Mill to the Little Hoquiam Bridge. P. A. Bertrand, Aberdeen, is Secy. and Gen. Mgr.

Oregon—Oregon-Washington R.R. & Navigation Co.—This company plans to start work soon on the construction of its proposed line from The Dalles to Hood River, about 19 miles. J. R. Holman, Portland, is Ch. Engr.

California—Fresno, Coalinga & Monterey Ry. Co.—On account of financial conditions this company has decided to postpone for an indefinite period, the construction of its electric railway from Fresno to Monterey. Ernest R. Shaw, Mutual Bank Bldg., San Francisco, is Gen. Mgr. Noted Mar. 18.

California—Pacific Electric Ry. Co.—Plans are being prepared by this company for double-tracking its line for a distance of three miles on American Ave. in Long Beach, Calif. J. McMillan, Los Angeles, is Gen. Mgr.

California—Pacific Electric Ry. Co.—This company contemplates the extension of its electric railway from San Bernardino to East Highland and Del Rosa. J. McMillan, Los Angeles, is Gen. Mgr.

California—The Pacific Gas & Electric Co., San Francisco, Calif., will make improvements to its street railway system at Sacramento, as follows: Reconstructing line on P St. from Third to 10th St., estimated cost, $12,805; reconstructing line on J St. from Second to 12th St., estimated cost, $40,926; constructing a new line on Second and Park Ave., estimated cost, $18,406. John A. Britton, 445 Sutter St., San Francisco, is Gen. Mgr.

California—Plans have been prepared by M. M. O'Shaughnessy, City Engr., San Francisco, for the extension of the municipal railway across Golden Gate Park. The proposed line will extend from 10th Ave. and Fulton St. through Golden Gate Park to 14th Ave. and Lincoln Way. Its terminus will be at 14th Ave. and Judah St. The roadway through Golden Gate Park will be depressed. Noted Dec. 24.

California—Southwestern Pacific Ry.—See item under Utah.

Ontario—Lake Erie & Northern Ry.—According to press reports this company will electrify its line from Galt to Brantford, about 40 miles. Martin L. Todd, Galt, is Engr.

Ontario—W. D. Euler, Berlin, is interested in the construction of an electric railway to connect Berlin, Bridgeport, Bloomingdale, New Germany and Guelph.

Ontario—Sudbury-Copper Cliff Suburban Electric Ry. Co. —This company plans to start work soon on the construction of its proposed electric railway from Copper Cliff to Sudbury. J. H. Mackey, Sudbury, is Pres. Noted Nov. 12.

Saskatchewan—The City Council of Regina has authorized the expenditure of $10,000 for the extension of the Young St. municipal railway. Noted Jan. 15.

Alberta—Edmonton Dunvegan & British Columbia Ry.—This company has been granted an extension of time in which to construct a line from Spirit River, Alta., to a junction with the Pacific Great Eastern at the Alberta-British Columbia boundary; also a line through the Grande Prairie district. Noted Apr. 22.

British Columbia—Pacific & Great Eastern Ry.—This company has secured through the Canadian and British Columbia Governments about $8,000,000 for the completion of a line, which is now in operation between Vancouver and Lillooet, B. C. It will be continued north to the Hundred-mile House in Cariboo, a distance of 223 miles from Vancouver. William Gerig, Medford, Ore., is Vice-Pres., Gen. Mgr. and Ch. Engr.

LIGHT, HEAT AND POWER

West Newbury, Mass.—The City Council is considering the installation of a municipal electric-lighting system. The present service is furnished by the Newburyport Gas & Electric Co.

✚Worcester, Mass.—The Worcester Electric Light Co. has awarded the contract for the installation of two 1250-hp. boilers in the proposed addition to its Webster St. station to the BIGELOW CO., New Haven, Conn., at about $12,000. Noted June 3.

Cranston, R. I.—(Providence post office)—Bids will be received until June 17 by the Board of Contract and Supply, Room 18, State House, Providence, for the construction of a power house, installation of steam plant, electrical equipment for central plant, all in connection with the new central heating and lighting plant for the state institutions in Cranston. The Richard D. Kimball Co., Industrial Trust Bldg., Providence, is Engr.-in-Charge.

Exeter, R. I.—(Official)—All bids received May 27 for the steam work in connection with the central plant for the Rhode Island School for the Feeble Minded at Exeter, were rejected, and new bids for the work will be received until 10 a.m., June 17, by the Board of Control and Supply, Room 18, State House, Providence. William A. Schofield is Chn. and Gilbert R. Parker is Secy. of the Bd. Noted May 13.

Lindenhurst, N. Y.—It is reported that the City Council is considering plans for the installation of an electric-light plant in connection with the municipal water-works system.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 3 p.m., June 10, by Cabot Ward, Pres. Bd. of Park Comrs., Municipal Bldg., Borough of Manhattan, for the installation of a hot-water heating plant in the animal hospital of the Zoölogical Park, Borough of the Bronx.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 10:30 a.m., June 17, by the Department of Public Charities, Municipal Bldg., Borough of Manhattan, for boilers, engines and air ducts in connection with mechanical-draft installation in 12 boilers of the Kings County Hospital, Borough of Brooklyn. Bids will be received at the same time for dumping grates for 12 return-tubular boilers, and repairing brick work in furnaces of said boilers in the power plant of the Kings County Hospital. John A. Kingsbury is Comr. of Pub. Charities.

Nutley, N. J.—The Board of Education has ordered plans prepared for the installation of a steam-heating plant in the Park School estimated to cost $11,000.

Dayton, Va.—It is reported that the Town Council will soon award contracts for the installation of an electric-light plant and sewer system. Bonds for $24,500 were recently sold for this work.

Westpoint, Va.—The People's Light, Heat & Power Corporation, Westpoint, contemplates the construction of an addition to its plant and the installation of an additional unit. Samuel MacWatters is Supt.

✚Kenova, W. Va.—The Ohio Valley Electric Ry. Co., Huntington, has awarded the contract for a turbo-generator for the power house at Kenova to the GENERAL ELECTRIC CO., Schenectady, N. Y., at $49,145. It will be of the Curtis type with a capacity of 11,000 volts and 6750 kw.

Ocala, Fla.—It is reported that plans will soon be completed for the construction of a municipal electric-light plant estimated to cost $75,000. Twombley & Henney, 55 Liberty St., New York, N. Y., is Engr. H. C. Sistrunk is City Clk.

Cincinnati, Ohio—It is reported that the Board of Education, Charles Handman, Business Mgr., has engaged an engineer to prepare plans and estimates of the cost of installing generating stations in some of the larger public school buildings of the city.

Cleveland, Ohio—Bids will be received until noon, June 18, by the Commissioner of Purchases and Supplies, 511 City Hall, for furnishing rubber-covered lead-incased cable for the municipal electric light plant. F. W. Ballard, 1443 East Third St., is Comr. of Light and Heat Dept.

Granville, Ohio—It is reported that the Ohio Light & Power Co., Tiffin, has applied for a franchise to furnish electricity for domestic and commercial purposes in Granville.

Kent, Ohio—(Official)—Bids will be received until noon, June 19, by John A. McDowell, Secy. Bd. of Trustees, Kent State Normal School, for the installation of boilers, stokers, engines and generators at the Kent State Normal School. George F. Hammond, 4220 Prospect Ave., Cleveland, is Arch.

Oakwood, Ohio—The Oakwood Light & Water Co. contemplates increasing its capital stock from $10,000 to $100,000 for the purpose of improving its plants and purchasing some new equipment.

Washington, Ohio—(Official)—Bids will be received until noon, June 19, by the Director of Public Service for lighting the streets, alleys, parks, public places and public buildings in the city for a period of five years, beginning July 1, 1915. Ray Maddox is Clk. to Dir. of Pub. Ser.

Zanesfield, Ohio—C. C. Outland, Mayor of Zanesfield, and E. Huntzinger, Piqua, plan to organize a company to install and operate an electric-light plant in Zanesfield.

✚Eveleth, Minn.—The Home Electric & Heating Co. has awarded the contract for the construction of a power station and office building to L. DUPLAISE, Duluth, at $14,000.

Tekamah, Neb.—At a recent election the citizens voted in favor of a bond issue of $15,000 for the extension of the municipal electric-light plant to furnish 24-hr. service. Noted May 13.

Chilhowee, Mo.—The city has voted $6800 in bonds for the purpose of installing an electric-light plant.

Harrisonville, Mo.—It is reported that W. B. Rollins & Co., Midland Bldg., Kansas City, has prepared preliminary plans for the construction of a municipal electric-light plant at Harrisonville. The estimated cost is $15,000.

✚Montrose, Mo.—The City Council has awarded the contract for the installation of an electric-power plant, exclusive of building, to the MATTHEWS CONSTRUCTION CO., Kansas City, at $5590. Noted Aug. 20.

Gordon, Tex.—The Gordon-Mingus Light Co. has been organized with a capital stock of $6000 for the purpose of installing and operating an electric-light plant.

Antlers, Okla.—It is reported that an electric-light plant will be installed in Antlers at an estimated cost of $15,000.

Tyrone, Okla.—The Tyrone Light, Ice & Power Co. has been granted a franchise for the installation of an electric-light and power plant in Tyrone. Walter J. Harville is interested.

Sterling, Colo.—It is reported that the Sterling Consolidated Electric Co. will soon purchase a 250-kw., three-phase, 60-cycle, 2200-volt generator and engine, stokers for three boilers, poles and wire. H. L. Titus is Mgr.

Kellogg, Idaho—The Guelph Mining Co. plants to install an electric power plant, compressor plant, pumps, hoist and other machinery for operating its property at Kellogg.

Pleasant Grove, Utah—The city contemplates the establishment of a municipal electric-light plant. The estimated cost is $25,000.

Colville, Wash.—The Stevens County Power & Light Co., whose plant is at Meyers Falls, Wash., plans to build a new dam in the Colville River and establish a new power station. H. R. Williams, Colville, is Vice-Pres. and Mgr.

Friday Harbor, Wash.—It is reported that a franchise has been granted to R. D. Burghardt, Seattle, to install and operate an electric-light plant in Friday Harbor.

Petaluma, Calif.—The Pacific Gas & Electric Co. will replace five miles of high-pressure gas main between Petaluma and Santa Rosa. The estimated cost is $12,000. John A. Britton, 445 Sutter St., San Francisco, is Gen. Mgr.

San Francisco, Calif.—The Pacific Gas & Electric Co. will install two boilers and superheaters at its gas plant at Station A, at a cost of about $41,400, and will lay an 8-in. high-pressure pipe line from the plant to the county line, about six miles, estimated to cost $50,500.

Montreal, Que.—Bids will be received until June 15 by the Board of Commissioners for the construction of the exterior electric system for the filtration plant.

Petrolia, Ont.—The Mayor and Town Council are having plans prepared for the installation of a new hydro-electric plant and distribution system estimated to cost $35,000.

Thamesville, Ont.—It is reported that plans will be prepared at once for a new hydro-electric lighting system for the town. W. J. Crydermann is Town Clk.

BRIDGES

✚Waterbury, Conn.—(Official)—Bids were received June 1 by the Board of Public Works for the construction of a reinforced-concrete bridge across the Naugatuck River at Bank St. as follows: Barbara D'Aurio, $91,574; C. A. Sibley, New Haven, $87,159; O'Brien Construction Co., 18 East 41st St., New York, $84,559; McHarg-Barton Co., 171 Madison Ave., New York, $71,598; Fred T. Ley & Co., Inc., Springfield, Mass., $70,455; Robert Daley Co., New Haven, $66,091; Barzaghi-Vought Co., Inc., 299 Madison Ave., New York, $62,870; HUDSON RIVER CO., 149 Broadway, New York, $61,337 (awarded contract). The bids for removing the old steel bridge at Bank St. and rebuilding it on new abutments at Freight St. were as follows: McHarg-Barton Co., $11,800; C. A. Sibley, $9560; Hudson River Co., $9000; SPAULDING CONSTRUCTION CO., Suffield, $7000 (awarded contract). Noted May 27.

Westport, Conn.—Charles J. Bennett, State Highway Comr., Hartford, has approved the plans prepared for a new bridge across the Saugatuck River at State St., Westport, and bids will soon be asked by the State Highway Department. It will be 33 ft. wide with a lift span. The estimated cost is $125,000, to be divided equally between the town, the state and the Connecticut Co. Noted May 27.

✚Buffalo, N. Y.—Press reports state that the Streets Committee of the Board of Aldermen has directed the Commissioner of Public Works to award the contract for rebuilding the Chicago St. Viaduct to the AMERICAN BRIDGE CO., 30 Church St., New York, at $185,000. The bridge has been closed for nearly a year. Noted May 7, 1914.

✚Canton, N. Y.—The Town Board opened bids May 28 for the construction of a bridge at Morley, as follows: Spaulding Construction Co., Suffield, Conn., $7498; Penn Bridge Co., Beaver Falls, Penn., $7540; Austin Bros., Atlanta, N. Y., $9450; United Construction Co., Albany, $7697; Standard Engineering Co., Toledo, Ohio, $7874; GROTON BRIDGE CO., Groton, $7195 (awarded contract).

✚★Wallkill, N. Y.—(Official)—Bids were received May 29 for the construction of a concrete-steel arch over the Wallkill River from: RENNELL CONSTRUCTION CO., 30 Church St., New York, $24,326 (awarded contract); Thomson-Wooster Co., Walden, N. Y., $24,870; Woolsey Construction Co., Poughkeepsie, $24,950; Young & Hyde, Inc., Produce Exchange Bldg., New York, $25,348; Hamilton Engineering & Construction Corporation, Woolworth Bldg., $25,480; John M. Holler, Albany, N. Y., $26,000; L. F. Bannon Co., Kingston, $26,555; Interstate Construction Co., 1170 Broadway, New York, $26,898; Abner M. Harper, Inc., Newburgh, $29,000; Kingsbridge Contracting Co., Inc., 30 East 42d St., New York, $36,336. James F. Loughran, 74 John St., Kingston, is County Supt. of Highways of Ulster County. Noted May 13.

New Brunswick, N. J.—Bids will be received until 2:30 p.m., June 15, by the Board of Chosen Freeholders of Middlesex County for the construction of a concrete culvert over Prentiss Brook on Jeffries St., South River. Asher W. Bissett is Clk. of Bd.

Butler, Penn.—Bids will be received until June 18 by the Commissioners of Butler County for the construction of five reinforced-concrete girder bridges, ranging from 25 to 35 ft. in length.

Grove City, Penn.—Bids will be received until June 21 by the Board of Commissioners of Mercer County for the construction of the Pine Ave. Bridge over Wolf Creek in the borough of Grove City. It will consist of a steel superstructure with piling in place and either stone or concrete abutments. H. C. Comstock, Mercer, is County Controller.

✚Harrisburg, Penn.—(Official)—The Board of Commissioners of Dauphin County has awarded the contract for the construction of a concrete bridge over Wiconsico Creek at Lykens to G. W. ENSIGN, INC., Harrisburg, at $4516. The contract for a small bridge over Armstrong Creek, five miles above Halifax, was awarded to the FERRO CONCRETE CO., Harrisburg, at $850. Noted May 27.

Lebanon, Penn.—Bids will be received until June 16 by the Supervisors of North Annville Township, Lebanon County, by Samuel T. Meyer, Township Solicitor, 811 Cumberland St., Lebanon, for a bridge across Quittapahilla Creek on the Clear Spring-Belle Grove Rd.

Milroy, Penn.—Bids will be received until June 16 by S. H. Crissman, Chn. of the Bd. of Supervisors of Armagh Township, Milroy, for the construction of three reinforced-concrete bridges.

✚Georgetown, Del.—(Official)—The Board of Commissioners of Sussex County has awarded the contract for the construction of a concrete bridge over Marshy Hope Creek to HOMAN & MIXNER, Cape May, N. J., at $4000. Noted May 20.

Cumberland, Md.—(Official)—Bids will be received until 10 a.m., June 19, by the Road Directors of Allegany County for the construction of a 70-ft. steel bridge replacing the bridge over the C. & O. Canal at Virginia Ave., and removing the old bridge a distance of about eight miles to Dickens Mill, and erecting it over Evitts Creek. J. T. Edwards is Pres. Rd. Dir.

Elkridge, Md.—(Official)—Bids will be received until noon, June 15, by O. E. Weller, Chn. State Rd. Comn., Garrett Bldg., Baltimore, for the construction of a reinforced-concrete bridge across the Patapsco River along the Baltimore and Washington Blvd. near Elkridge, Baltimore and Howard Counties. It will consist of two 98-ft. spans. Contract No. 0-5 Br.

Frostburg, Md.—The city and the Cumberland & Pennsylvania R.R. will build a bridge over the railroad cut on Bowery St. It will be a concrete arch 44 ft. long with a 38-ft. roadway and 6-ft. sidewalk.

Pungoteague, Va.—(Official)—All bids received June 3 for the construction of a 612-ft. wooden beam bridge over Occahannock Creek in Accomac County were rejected, and no date has been fixed yet for receiving new bids. Noted May 27 under Keller, Va.

✚Rocky Mount, Va.—(Official)—The State Highway Commission, Richmond, has awarded contracts for the superstructure and substructure of a bridge over the Pig River at Rocky Mount, Franklin County., to the ROANOKE BRIDGE & IRON WORKS, Roanoke, and J. T. McMAHON, Roanoke, respectively. Noted Apr. 8.

✚Columbia, S. C.—It is reported that the Seaboard Air Line Ry. has awarded the contract for a new bridge at Columbia to the CAROLINA CONSTRUCTION CO., Union National Bank Bldg., Columbia, at about $40,000.

Macon, Ga.—It is reported that the Commissioners of Bibb County contemplate the construction of a concrete bridge over Eckaconnee Creek on the Columbus Rd. between Bibb and Crawford Counties.

Clearwater, Fla.—It is reported that E. R. Jeffords and George Smoyer, Clearwater; W. E. Parker, Tampa, and P. E. Ruhl, Plant City, have organized a company to build a bridge from the mainland at Clearwater to Island Park. The estimated cost is $100,000.

★✚Lake Charles, La.—(Official)—The Police Jury of Calcasieu Parish has awarded the contract for the construction of the six reinforced-concrete arches of the Calcasieu River Bridge near Lake Charles to the MISSOURI VALLEY BRIDGE & IRON CO., Leavenworth, Kan., and the FRUIN-COLNON CO., St. Louis, Mo., at $53,924; the contract for the electrically operated double-leaf trunnion bascule span, Strauss type, was awarded to the FEDERAL BRIDGE CO., Waukesha, Wis., and the MISSOURI VALLEY BRIDGE & IRON CO. at $17,914. Other bidders for the concrete arches were: Hardaway Contracting Co., $81,319; Midland Bridge Co., $93,900; Hackedorn Contracting Co., $113,109. Bidders on the bascule span were:

Hardaway Contracting Co., $21,311; Penn Bridge Co., $22,263; Sterling Engineering Co., $22,378; Midland Bridge Co., $23,561; Vincennes Bridge Co., $23,714. Bids were opened June 1. Noted May 13.

Covington, Ky.—The city contemplates the construction of a 725-ft. steel bridge near the Louisville & Nashville R.R. Bridge, to carry the emergency water-main across the Licking River. The estimated cost is $50,000. George Hornung, Johnston Bldg., Cincinnati, Ohio, is Consult. Engr.

✚Canton, Ohio—(Official)—The Board of Commissioners of Stark County has awarded the contract for rebuilding the Tuscarawas St. Bridge to the COSHOCTON CONSTRUCTION CO., Coshocton, at $10,146. The contracts for the substructure and superstructure of the Eighth St. Bridge were awarded to COX & GLASS, Kensington, at $9143, and the LACKAWANNA BRIDGE CO., Buffalo, N. Y., at $3740, respectively. Noted May 13.

Cincinnati, Ohio—Bids will be received until July 2 by the Commissioners of Hamilton County for the construction of a bridge and culverts on Cameron Rd. from Hunt Ave. to Hamilton Pike in Springfield Township. Albert Reinhardt is Clk. of Comrs.

Cincinnati, Ohio—Bids will be received until noon, June 25, by the Board of Commissioners of Hamilton County for the construction of a culvert in Cincinnati Ave. at the North Bend Pond, Miami Township. Albert Reinhardt is Clk. of Bd.

Elyria, Ohio—It is reported that bids are being received by the Commissioners of Lorain County for the construction of an 84-ft. bridge in Wellington Township, to be of steel with concrete or stone abutments. The estimated cost is $7000. J. M. Powell is County Engr. F. L. Ellenberger is Clk.

Hamilton, Ohio—Bids will be received until June 19 by W. W. Crawford, Audr. of Butler County, for the construction of a concrete bridge at the Kramer-Seward farm, Liberty Township.

St. Clairsville, Ohio—Bids will be received until June 21 by E. Campbell, Audr. of Belmont County, for the following bridge work: Steel truss superstructure and concrete abutments for the United Church Bridge in Wheeling Township; steel truss superstructure of the Pogue's Run Bridge in Richland Township; a reinforced-concrete bridge known as Chamber's Bridge in Richland Township.

Waverly, Ohio—Bids will be received until June 14 by the Board of Commissioners of Pike County for the construction of a 123-ft. steel span over Sunfish Creek. I. B. Eyler is County Audr.

✚Grand Haven, Mich.—(Official)—The Board of Road Commissioners of Ottawa County has awarded contracts for the construction of a bridge over the Grand River at Eastmanville to the G. W. BUNKER CO., Grand Rapids, at $14,163 for the substructure, and the JOLIET BRIDGE & IRON CO., Joliet, Ill., at $29,941 for the superstructure. Noted May 20.

Chicago, Ill.—Bids will be received until 11 a.m., June 12, by W. R. Moorhouse, Comr. of Pub. Wks., for two automatic street gates for the South Halsted St. lift bridge, and for furnishing structural steel for the repair of the Randolph St. bridge.

★✚Chicago, Ill.—The Union Station Co. has awarded contracts for the construction of a trunnion bascule bridge over the south branch of the Chicago River at West Monroe St. to the FITZSIMONS & CONNELL DREDGE & DOCK CO., 10 South La Salle St., Chicago, for dredging, pile driving and substructure; to the KETLER-ELLIOTT CO., 155 North Clark St., Chicago, for structural steel and erection. Noted May 20.

✚Crystal Lake, Ill.—The Highway Commission of McHenry County has awarded the contract for the construction of a 462-ft. bridge at Crystal Lake to J. J. O'HERON & CO., 326 West Madison St., Chicago, at $15,400. Noted Apr. 22 under Woodstock, Ill.

Milwaukee, Wis.—(Official)—Plans for the State-Martin St. Bridge are now in the hands of the War Department for approval, and as soon as this is done and the property secured, bids will be received for the construction. This will probably be late this year or early in 1916. The estimated cost of the structure is $175,000. J. C. Pinney, Jr., is Supt. of Bridges and Pub. Bldgs. Noted Apr. 1.

✚Oconto, Wis.—The Highway Commissioner of Oconto County has awarded the contract for the construction of two bridges to YOUNG BROS., Oconto, at $8100. One is over Mosquito Creek in the Town of Townsend, and the other over McCaslon Brook, Town of Lakewood. Each is a 40-ft. span.

✚Northwood, Iowa—(Official)—The Board of Supervisors of Worth County has awarded the contracts for six county bridges to the DOBSON CONSTRUCTION CO., Nora Springs, at $3336 for Nos. 3, 4, 5 and 6, and to the FOREST CITY CONSTRUCTION CO., Forest City, at $3370 for Nos. 1 and 2. Noted May 13.

✚Tipton, Iowa—The Board of Supervisors of Cedar County has awarded the contract for the construction of a number of county bridges to N. M. STARK & CO., Des Moines, at $8657.

✚Toledo, Iowa—The Board of Supervisors of Tama County has awarded the contract for the construction of 53 bridges and culverts to PAUL N. KINGSLEY, Strawberry Point, at $44,508.

Webster City, Iowa—The Board of Supervisors of Hamilton County has passed a resolution of necessity for the construction of a number of bridges and culverts in the county. A. J. Peterson is County Audr.

✚Brainerd, Minn.—(Official)—The Board of Commissioners of Crow Wing County has awarded the contract for redecking the Laurel St. Bridge with creosote blocks, and for repairing and redecking the Minnesota and International Ry. Bridge to the MINNEAPOLIS BRIDGE CO., Minneapolis, at $6000 and $5400 respectively. Noted May 13.

Cannon Falls, Minn.—Plans are being prepared for the construction of two concrete bridges estimated to cost $25,000. L. P. Wolff, Germania Bank Bldg., St. Paul, is Consult. Engr. George Wilson is City Clk.

Cedar, Minn.—Bids will be received until 2 p.m., June by Albert Hoevet, Town Clk., for the construction of two bridges.

Deer Wood, Minn.—(Official)—The work of repairing the Mississippi River Bridge north of Deer Wood, Crow Wing County, will be done by county forces. Noted May 13.

Wabasha, Minn.—Bids will be received until 2 p.m., June 15, by the Commissioners of Wabasha County for the construction of five county bridges. John Boss is County Audr.

Bloomfield, Neb.—Bids will be received until 5 p.m., June 15, by M. T. Liewer, County Clk. of Knox County, for the construction of two county bridges.

✚Lisbon, N. D.—The Commissioners of Ransom County have awarded the contract for the construction of an 80-ft. steel bridge with reinforced-concrete floor to the LA MOURE CONSTRUCTION CO., La Moure, N. D. Noted Apr. 6.

Hardin, Mont.—It is reported that the Commissioners of Big Horn County will soon call for bids for the construction of two bridges, one over the Tongue River at Wyola, to cost about $5000, and the other over the Little Horn River on the Sarpy Rd., estimated to cost $10,000. Robert P. Ross is County Clk. Jesse E. Graham is County Engr.

✚Montesano, Wash.—The Board of Commissioners of Chehalis County has awarded the contract for the construction of three highway bridges over the Whishkah River to the COAST BRIDGE CO., Portland, Ore., at $16,448. Noted May 20.

Riverside, Wash.—Bowerman & McCloy, Consult. Engr., Seattle, is preparing plans for a new bridge over the Okanogan River near Riverside. It is reported that the town will award the contract in July for the substructure, which will consist of four concrete piers on rock and gravel foundation; cost, about $3500. Okanogan County will ask bids in October for the superstructure, to consist of one 140-ft. and two 71-ft. spans with 16-ft. roadway. Estimated cost, $6000.

Seattle, Wash.—Bids will be received until 10 a.m., June 25, by the Board of Public Works for the construction of two steel drawbridges, one at 15th Ave., N. W., and the other at Fremont Ave., to cost $460,000 and $420,000, respectively. Arthur H. Dimock is City Engr. Noted Apr. 8.

Tacoma, Wash.—(Official)—Bids will be received some time in July by Owen Woods, Comr. of Pub. Wks., for the construction of a wooden bridge, 650 ft. long and 160 ft. high, across the gulch at East 34th St. W. C. Raleigh is City Engr. Noted May 27.

Orange, Calif.—Bids will be received until July 6 by the Board of City Trustees for the construction of a reinforced-concrete bridge on East Chapman Ave. The estimated cost is $10,000.

Sacramento, Calif.—(Official)—Bids were received May 24 by the State Highway Commission, Forum Bldg., for the construction of an 80-ft. plate girder bascule bridge near the easterly side of the Yolo bypass in Yolo County, as follows: Midland Bridge Co., Kansas City, Mo., $26,862 (irregular); Ross Construction Co., Sacramento, $24,906; Seabury B. Peterson, San Francisco, $37,984; Graff Construction Co., Seattle, Wash., $35,900. The Engineer's estimate was $18,722. Noted May 20.

★San Francisco, Calif.—(Official)—Bids will be received until 3 p.m., June 23, by the Board of Public Works, City Hall, for the construction of a Strauss trunnion bascule bridge, including substructure and approaches, over the Channel St. waterway. Plans and specifications on file at the office of "Engineering News," 10th Ave. at 36th St., New York, N. Y.

Sespe, Calif.—The Surveyor of Ventura County, Ventura, is preparing plans for a new bridge across the Santa Clara River at Sespe. It will be about 240 ft. long, and the estimated cost is $18,000. The structure will consist of a steel superstructure on concrete abutments.

Moncton, N. B.—Bids will be received until June 16 by the Public Works Department, Fredericton, for the construction of a bridge over the Petitcodiac River between the City of Moncton, Westmoreland County, and the Parish of Coverdale, Albert County. John Morrissy, Fredericton, is Minister of Pub. Wks. Noted Mar. 4.

Ottawa, Ont.—It is reported that bids will be asked shortly for the construction of the Pretoria Ave. Bridge. F. C. Askwith is Act. City Engr. Noted Feb. 11.

Toronto, Ont.—(Official)—Bids will be received until noon, June 15, by T. L. Church, Mayor and Chn. Bd. of Control, for the construction of the Strachan Ave. Bridge over the tracks of the Canadian Pacific Ry. The work will consist of a concrete masonry substructure and concrete floor and a steel superstructure.

Toronto, Ont.—(Official)—Bids will be received until 6 p.m., June 18, by Frank Barber, Engr., 57 Adelaide St. E., for the construction of a reinforced-concrete bridge over Toole's Creek on the boundary line between York and Ontario Counties.

Virden, Man.—Bids will be received until 6 p.m., June 15, by W. Whiteford, Secy. and Treas., Municipal Bldg., Virden, for the construction of five bridges and three culverts on the Provincial Highway.

WATER SUPPLY—IRRIGATION

Lowell, Mass.—(Official)—Bids will be received until 10 a.m., June 15, by James H. Carmichael, Comr. of Water-Wks. and Fire Protection, for furnishing and installing a vertical triple expansion crank and fly-wheel pumping engine for the water-works.

✚Salem, Mass.—The contract has been awarded to the DONALDSON IRON CO. and the WARREN FOUNDRY & MACHINE CO., by the Council, for furnishing 3500 ft. of 36-in. water mains.

★Hartford, Conn.—Bids for the construction of the east dike in connection with the Nepaug reservoir system, known as Contract 9, were received June 2 by the Board of Water Commissioners, as follows: Peter Bompiani & Co., Boston, Mass., $37,876; A. D. Ambrosia, Hartford, $47,791; Berardino

& Tomasetti Co., Meriden, $41,821; F. T. Ley Co., Springfield, Mass., $43,119; Piersen Engineering & Contracting Co., Hartford, $42,460; Leonardo Suzio, Meriden, $29,180; Charles T. Eastburn Co., Yardley, Penn., $36,408; Connecticut Good Roads & Construction Co., New Britain, $33,781; Louis Longhi & Bro., Torrington, $33,672.15. Noted May 20.

Auburn, N. Y.—The Pitometer Co., New York, has been retained by the city to make a survey of the water system.

Canton, N. Y.—(Official)—At the recent election the citizens defeated the question to issue bonds for $60,000, the proceeds of which was to have been used for the construction of a filtration plant. Noted May 20.

Hilton, N. Y.—At a recent election the citizens voted in favor of issuing bonds for $49,000, the proceeds of which will be used for the construction of a water system. Noted Apr. 8.

Lindenhurst, N. Y.—The town contemplates constructing a water system. Fred Sheide is Town Superv.

★New York, N. Y.—(Official)—Bids will be received until 11 a.m., June 22, by the Board of Water Supply, Municipal Bldg., Borough of Manhattan, for constructing a coagulating plant in the town of Mt. Pleasant, Westchester County, under Contract No. 159. W. Bruce Cobb is Secy. of the Bd.

★New York, N. Y.—(Official)—Bids will be received until 11a.m., June 22, by the Board of Water Supply, Municipal Bldg., Manhattan, for furnishing and installing steel ladders, nozzles, etc., under Contract No. 106. W. Bruce Cobb is Secy.

✚New York, N. Y.—(Borough of Manhattan)—(Official)—The contract has been awarded to ROGERS & McMANUS, at $42,651, for laying water mains in various streets. Bids were opened May 20. Noted May 13 and 27.

New York, N. Y.—(Boroughs of Manhattan and the Bronx)—(Official)—Bids will be received until 2 p.m., June 14, by William Williams, Comr. of Water Supply, Gas and Electricity, Municipal Bldg., Manhattan, for furnishing venturi meter tubes for the Catskill supply.

New York, N. Y.—(Boroughs of Manhattan and the Bronx)—(Official)—Bids will be received until 2 p.m., June 18, by William Williams, Comr. of Water Supply, Gas and Electricity, for making alterations and improvements to the building at 1192 Fulton Ave., Bronx, and for converting it into a distributing station and for work incidental thereto.

✚Atlantic Highlands, N. J.—(Official)—The contract has been awarded to ROBERT W. SMITH CORPORATION, 30 Church St., New York, N. Y., at $5978, for laying water mains. Bids were received May 25. W. S. Franklin is Borough Clk. Noted May 20.

Jersey City, N. J.—Plans have been completed for the construction of the pipe line from Brookdale to the Summit Ave. reservoir for the Jersey City water supply. The estimated cost is $1,500,000. Noted Feb. 11.

✚Newark, N. J.—The contract has been awarded to MARKS, LISSBERGER & CO., INC., Long Island City, N. Y., at about $15,000, for furnishing the annual supply of pig lead and lead pipe for the water-works.

Morrisville, Penn.—The city has been instructed by the State Board of Health to construct a filtration plant at an estimated cost of $15,000.

✚★Philadelphia, Penn.—(Official)—Bids were received May 25 for the improvement of the water system as follows: Beaver Engineering & Contracting Co., New York, N. Y., $443,915; Cunningham Paving & Construction Co., $478,955; M. & J. B. McHugh, $654,594; Snare & Triest Co., $406,855; Keystone State Construction Co., $438,645; EDWIN H. VARE, 712 Lincoln Bldg., Philadelphia, at $399,963 (awarded contract); Peoples Bros., Inc., $577,250; Charles P. Bower, $424,380; Degnon Contracting Co., $413,127; American Paving & Construction Co., $450,531.

✚★Ridgway, Penn.—(Official)—The contract has been awarded to GEORGE I. THOMPSON & CO., Clearfield, at $4310, for enlarging the filtration plant. Other bidders were: Horn & Devling, Galeton, $4446; R. B. Tayloer, Bellefonte, $4485; M. Applegate & Son, Bradford, $7055; John T. Minns, DuBois, $4365; William Dickinson, Ridgway, $5916. Noted May 20.

Covington, Va.—According to press reports bids will be received until June 15 for the construction of a reservoir and for improvements to the water system. Harry Stevens, Union Trust Bldg., Washington, D. C., is Engr. The estimated cost is $20,000. Noted May 20.

Bluefield, W. Va.—The citizens contemplate constructing a municipal water system.

St. Marys, W. Va.—Bids will be received until noon, June 30, by the city for constructing a concrete reservoir with a capacity of 380,000 gal. E. J. Miller is City Engr. and Charles Carroll is Recdr.

Wheeling, W. Va.—C. B. Cooke, City Engr., is preparing plans for the construction of a 20,000,000-gal. water supply system from wells.

Tallapoosa, Ga.—An election will be held June 30 to vote on the question of issuing $35,000 in bonds, the proceeds of which will be used for the construction of a water system. Noted May 20.

Lakeland, Fla.—(Official)—Bids will be received about July 1 by the Schofield Engineering Co., Philadelphia, Penn., for the improvement of the water system. Plans are being prepared by the Schofield Engineering Co. J. R. Boulware is Secy. Bd. of Bond Trustees. Noted Feb. 18 and May 20.

Scottsboro, Ala.—An election will soon be held to vote on the question of issuing $5000 in bonds, the proceeds of which will be used for the enlargement of the winter system.

Boyle, Miss.—The city plans to spend $7500 for the construction of a water system. W. A. McDill is Mayor.

Columbia, Tenn.—The citizens contemplate constructing a water system at an estimated cost of $100,000.

★Covington, Ky.—(Official)—Bids will be received until 10 a.m., July 8, by J. Mason Howk, Comr. of Pub. Property, for furnishing 3487 tons of c.-i. pipe and 20 tons of specials for the water department.

Lexington, Ky.—Water mains will be laid by the Lexington Hydraulic & Mfg. Co. from its pumping station to Mentelle Park. The estimated cost is $25,000.

Attica, Ohio—An election will be held June 12 to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the improvement and enlargement of the municipal water system. The W. J. Sherman Co., Toledo, is Engr. Noted Nov. 19.

✚Cleveland, Ohio—The contract for the construction of the superstructure of the Division Ave. pumping station has been awarded to the F. W. MARKS CONSTRUCTION CO., Leader News Bldg., Cleveland, at $233,898. Noted May 13.

Columbus, Ohio—(Official)—Bids will be received until 2 p.m., July 8, by John I. Miller, Supt. of Pub. Wks., for constructing a dam, waste weir and flood regulation gates at the east reservoir, Portage Lakes. Noted Mar. 11.

Farmersville, Ohio—Bonds for $16,000 have been voted by the citizens, the proceeds of which will be used for the construction of a water system. A. F. Gilbert is City Clk.

Lorain, Ohio—Glick & Wetzel was low bidder at $4397, for making repairs and improvements to the water system. Noted Apr. 29.

Napoleon, Ohio—Bids will be received until noon, June 14, by F. W. Reiter, Pres. Trustees Public Affairs, for constructing a water softening and filtration plant of 1,500,000 gal. capacity. Noted Feb. 18 and Mar. 4.

Wellington, Ohio—Bids will be received about July 1 for the construction of a filtration plant, the estimated cost of which is $35,000. The W. J. Sherman Co., Toledo, is Engr., and R. L. Waldon is Mayor. Noted Apr. 1 and May 20.

✚Marion, Mich.—The contract has been awarded to the TRAVERSE CITY IRON WORKS, Traverse City, at $7500, for constructing a water system.

Traverse City, Mich.—Bids will soon be received by the Water Department for furnishing 2000 ft. of 30-in. water pipe.

✚Berwyn, Ill.—(Official)—The contract has been awarded to T. H. IGLEHART, The Rookery, Chicago, at $35,342, for laying water mains in Lombard Ave. and in various other streets. Oscar N. Lindahl is Secy. Bd. of Imp. Noted May 13.

✚Herrin, Ill.—The contract has been awarded to the PITTSBURGH FILTRATION CO., Pittsburgh, Penn., at $18,107, for constructing a filtration plant. Noted Feb. 18.

✚Paris, Ill.—The contract has been awarded to HICKEY BROS., St. Louis, Mo., at $49,412, for constructing a water system. Noted Mar. 4 and May 13.

✚Springfield, Ill.—The contract has been awarded to the LYNCHBURG FOUNDRY CO., Lynchburg, Va., at $22.70 per ton, by the Council for furnishing 475 tons of 6-in. water mains. Noted June 3.

Ellsworth, Wis.—An election will be held June 15 to vote on the question of issuing $7000 in bonds, the proceeds of which will be used for the improvement of the water system. C. B. Wood is Village Clk.

Fond du Lac, Wis.—Bids will soon be received by the Board of Public Works for laying water mains. J. F. Hohensee is City Clk. Noted Sept. 17.

Kohler, Wis.—(Fredonia post office)—The citizens voted in favor of installing water and sewer systems. Jerry Donohue is Engr.

River Falls, Wis.—Bids will be received until 8 p.m., June 17, by F. V. Williams, Street Comr., for laying c.-i. water mains and installing valves and hydrants.

Ames, Iowa—Bids will be received about July 1, according to press reports, by the Iowa State College for the construction of a new filtration plant at the college. The estimated cost is $15,000.

✚Colo, Iowa—Contracts have been awarded by the town for constructing a water system as follows: DES MOINES BRIDGE & IRON CO., Des Moines, at $7985, for laying pipe; MEMPHIS STEEL CONSTRUCTION CO., Memphis, Tenn., $2674, for tower and tank; W. F. KUCHAVO & CO., Des Moines, $2310, for building; MERKLE HINES MACHINERY CO., Omaha, Neb., $1445, for pumping machinery. Noted Apr. 22 and May 6.

Fredericksburg, Iowa—The citizens will hold an election to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for the extension of the water system.

✚Oelwein, Iowa—The contract has been awarded to M. TSCHIRGI & SONS, Cedar Rapids, Iowa, at $4475, for driving a well.

✚Onslow, Iowa—Contracts have been awarded to the DES MOINES BRIDGE & IRON WORKS, Des Moines, for constructing a tower and tank, and to THOMAS H. WOOLCOX, Oglesby, Ill., for laying water pipe. Charles P. Chase, Clinton, is Engr. Noted May 6.

Orange City, Iowa—Bids will be received until June 14, according to press reports, for the construction of water mains and for moving the water tower. The estimated cost is $10,500. Noted May 6.

Sioux City, Iowa—The construction of an additional pumping station and the installation of a centrifugal pump is under consideration by the city. Philip Carlin is Supt. of Water-Wks.

Terril, Iowa—According to press reports bonds for $8500 have been voted by the citizens, the proceeds of which will be used for the construction of a water system.

Bird Island, Minn.—Bids will be received until June 15 by C. A. Strom, Village Recdr., for making extensions to the water system.

Duluth, Minn.—Bids will soon be received for furnishing 800 water meters. D. A. Reed is Mgr. Dept. of Water.

Robbinsdale, Minn.—The Robbinsdale Civic & Improvement Association contemplates constructing a water system at an estimated cost of $15,000.

Chanute, Kan.—Plans are being prepared by the City Engineer for the extension of the water system. C. G. Wood is City Clk.

Broken Bow, Neb.—Bids will soon be received for the construction of water and electric-light systems. Charles F. Sturtevant, Holdrege, is Engr. Noted Apr. 1 and 22.

✚Ceresco, Neb.—(Official)—The contract has been awarded to the INTER-MOUNTAIN BRIDGE & CONSTRUCTION CO., Tecumseh, at $8900, for constructing a water system. Other bidders were: A. A. Dobson Co., $9100; George Vlasnik, $9030; Elkhorn Construction Co., $9145; Katz Construction Co., $9250; A. B. Price, $9240. Grant & Fulton, Lincoln, is Engr. Noted Apr. 8 and May 13.

Milligan, Neb.—The Martz Engineering Co., Lincoln, is preparing plans for the construction of a water system. The estimated cost is $9000.

Sterling, Neb.—An election will be held June 18 to vote on the question of issuing bonds for $21,000, the proceeds of which will be used for the construction of a water system. Grant & Fulton, Security Mutual Life Bldg., Lincoln, is Engr. Noted May 6.

Syracuse, Neb.—Plans are being prepared by the Mertz Engineering Co., Lincoln, for the installation of water and electric-light systems. The estimated cost is $20,000.

Anamoosa, N. D.—Plans are being prepared for the construction of a municipal water system to cost $10,000. E. C. Waydiman is City Clk. Noted May 27.

Judith Gap, Mont.—The citizens will vote June 14 on a bond issue for $12,500, the proceeds of which will be used for the construction of a water system. Gerharz & Jaqueth, Great Falls, is Engr. Noted Apr. 1 and May 27.

Whitehall, Mont.—(Official)—See item under "Sewers."

Butler, Mo.—(Official)—Bids will be received until 2 p.m., June 22, by J. F. Smith, City Clk., for furnishing material and constructing a filtration plant. Harper & Stiles, Grand Ave. Temple, Kansas City, is Engr. Noted June 18 and July 23, 1914.

Piggott, Ark.—The city will install a water system at an estimated cost of $40,000. Albert C. Moore, Frisco Bldg., Joplin, Mo., is Consult. Engr. and J. M. Myers is Chn. Water Comn.

✚Dallas, Tex.—The contract has been awarded to J. E. FAUCETT, at about $20,000, by the Southern Methodist University for constructing part of the water system. Noted June 3.

Twin Falls, Idaho—The City Council contemplates installing a municipal water system. Noted Dec. 24.

Reno, Nev.—A water system will not be constructed as previously planned. J. R. Parry is City Clk. Noted May 29.

Aberdeen, Wash.—J. M. Phillips, Mayor, advocates bonding the city for $100,000, the proceeds of which will be used for the construction of the Wynooche water system.

Spokane, Wash.—The County Homes Water Co. will construct a water system, the estimated cost of which is $80,000.

North Powder, Ore.—The citizens are petitioning the Council to call an election to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for the construction of a water system. Noted Apr. 29.

Pendleton, Ore.—Bonds for $40,000 have been sold. The proceeds will be used for the extension of the water system.

Davis, Calif.—The Davis Water Co. is preparing plans, according to press reports, for the enlargement of its system.

Red Bluff, Calif.—A pumping plant and distributing system will be installed at the Blossom Ranch. The estimated cost is $20,000. George Stephenson is Supt.

Hespeler, Ont.—Bids are being received, according to press reports, for the construction of a water system. Bowman & Connors, Berlin, is Engr. Noted Jan. 28.

London, Ont.—Bids will soon be received for the installation of electrically operated and controlled sluice gates at the pumping station. E. V. Buchanan, City Hall, London, is Gen. Mgr., Bd. of Pub. Utilities. The estimated cost is $20,000.

Marmora, Ont.—The Council contemplates constructing a water system for fire protection at an estimated cost of $10,000. H. W. Sabine is Clk.

Windsor, Ont.—The Council plans to lay seven miles of water mains. W. A. Hanrahan is Secy.

Kamsack, Sask.—The city has authorized the improvement of the water system at an estimated cost of $35,000.

Bassano, Alta.—Bids will be received until June 19 by G. B. R. Bond, Town Clk., for furnishing one 750-gal. turbine water pump. Plans are on file with the clerk. Noted Feb. 11.

Duncan Station, B. C.—(Official)—We have been advised that the city does not intend to construct a water system. Noted Mar. 11.

SEWERS

Gonic, N. H.—The City Council has voted to appropriate $15,000 for the construction of sewers.

Boston, Mass.—Bids will be received until noon, June 11, by Patrick O'Hearn, Acting Comr. of Pub. Wks., for the construction of sewers and drains in Montmorenci Ave. from Orient Ave., 600 ft. westerly.

Boston, Mass.—Bids will be received until noon, June 15, by Patrick O'Hearn, Acting Comr. of Pub. Wks., for the construction of sewers in Temple, Hillcrest, Lorette and Elgin St.

Boston, Mass.—Bids will be received until noon, June 16, by Patrick O'Hearn, Acting Comr. of Pub. Wks., for the construction of the Mattapan Brook conduit in Delhi St.

✚Fitchburg, Mass.—(Official)—The contract for the construction of the Bemis Rd. siphon connection with the main sewer has been awarded to F. A. CASSIDY, Fitchburg, at $7258. Noted May 13.

✚Newton, Mass.—(Official)—The contract for the construction of sewers in various streets has been awarded to ANTHONY BARUFFALDI, 9 Parker Pl., Somerville, at $11,71 Noted May 6.

Northampton, Mass.—The city contemplates appropriatin $10,000 for the construction of sewers in the West St. an Hospital Hill sections and for the establishment of a pumpin station.

Providence, R. I.—The city contemplates the constructio of sewers in nine streets.

Danbury, Conn.—The city contemplates the constructio of a sewer in Ninth Ave., estimated to cost $10,900.

★East Port Chester, Conn.—(Port Chester, N. Y., post office)—(Official)—Daley & Merritt, Port Chester, N. Y., submitted the lowest bid at $12,911 for the construction of a sewage-disposal plant. Clyde Potts, 30 Church St., New York, is Engr.

✚Huntington, N. Y.—(Official)—The contract for the construction of a sewer system and sewage-treatment works has been awarded to FRANK NORDONE, Mt. Vernon, N. Y., at $77,949. Other bids were: Fred E. Gross & Son, Yonkers, $79,302; Lincoln-Steele Fleming Co., New York, $81,523; Peter D'Amato, Newark, N. J., $86,530; Murphy Bros., Brooklyn, $86,758; Peace Bros., Flushing, $88,994; Henry W. Golden & Son, Inc., Troy, $89,078; John C. Schrade, Inc., Brooklyn, $94,788; Daly & Merritt, Port Chester, $104,101; Frank Puglia, Paterson, N. J., $114,466; North Eastern Construction Co., New York, $119,783; Joseph Jennings, Brooklyn, $130,271; Frank Merendino, Inc., Brooklyn, $155,675. George Fuller, 170 Broadway, New York, is Engr. Noted May 27.

Kenmore, N. Y.—(Official)—At a recent election the citizens voted to issue $20,000 in bonds, the proceeds of which will be used for the construction of a sewer system. E. W. Johnson is Village Clk. Noted May 20.

✚Medina, N. Y.—The contract for the construction of an addition to the sewer system has been awarded to FRANK S. & ANTONY SPOSATO, 406 North Clinton St., Syracuse, at $4176.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received June 2 by L. H. Pounds, Borough Pres., for sewer construction, as follows: (a) constructing sewers in Ave. I and East 3rd St., (b) constructing sewers in Eastern Parkway and Classon Ave., (c) constructing sewers in West 37th St. and Surf Ave., (d) constructing sewers in Hemlock St., (e) constructing sewer basins in Coney Island Ave., (f) repairing sewers in McKibbon St., D. Donegan Co., (a) 79%, (b) 97%, (c) 84%; F. Merrindino, Inc., (a) 83.5%, (b) 120%, (e) 125%; Stanhope Contracting Co., (a) 90%, (b) 115.44%, (f) 125%; P. Tomasetti, (a) 73.41%, (b) 129%, (c) 79%, (e) 110%; J. A. Morrison, (a) 96.07%; Murphy Bros., (a) 74 4/11%, (c) 81%, (f) 109%; B. Paconi & Sons, (a) 74%, (d) 95%; A. A. Dumproff, (a) 79%, (b) 85%, (c) 103%, (d) 105%, (e) 100%, (f) 110%; Joseph Jennings, (a) 92.85%, (b) 128%, (c) 89.3%, (d) 104%, (f) 90%; S. Paconi & Sons, (a) 72.5%, (e) 125%; A. Soreano, (a) 85%; Ward & Tully, Inc., (c) 111%; T. A. Pellagrino Construction Co., (a) 86.66%, (d) 113.93%, (f) 87.94%; P. J. Donlin Contracting Co., (c) 85%, (f) 95%.

✚New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for the construction of sewers in Liberty St. from Nassau to Broadway has been awarded to the LACONIA CONSTRUCTION CO., at $5778. Noted June 3.

✚Oswego, N. Y.—(Official)—Bids were received June 1 by the Department of Public Works for sewer construction as follows: ARTHUR J. SHAW, Batavia, Contract L, $4922, Contract M, $2359, Contract N, $10,693, Contract O, $1507, Contract P, $2958 (awarded contracts); E. J. Schem, Fulton, Contract N, $12,810; James Fennell, Oswego, Contract N, $12,905, Contract O, $2000, Contract P, $3724; Angelo Falvo, Oswego, Contract L, $6940, Contract M, $2776, Contract N, $11,612, Contract O, $1566, Contract P, $3338; Antonia Mondo, Syracuse, Contract L, $6426, Contract M, $2645, Contract N, $16,766, Contract O, $1786, Contract P, $3175; Samuel Bonn, Syracuse, Contract L, $7371, Contract M, $2890, Contract N, $14,206, Contract O, $2071, Contract P ,$4120; Charles Bonn, Syracuse, Contract L, $6458, Contract M, $3019, Contract O, $1571, Contract P, $3506; Luciano Tremiti, Oswego, Contract M, $2836, Contract O, $2125, Contract P, $1258; Raffaelo Compo, Oswego, Contract M, $2946, Contract P, $4654; Joseph Zaia, Oswego, Contract M, $3107; Bati & Lafurtuna, Oswego, Contract O, $1661. Charles W. Linsley is Comr. of Pub. Wks. Noted May 27.

Perrysburg, N. Y.—Bids will be received until 11 a.m., June 16, by F. G. Ward, Comr. of Pub. Wks., for the construction of a sewage-disposal plant.

✚Syracuse, N. Y.—The contract for the construction of a sewage-disposal plant has been awarded to the P. J. SULLIVAN CO., at $7835. Noted May 27.

Atlantic Highlands, N. J.—An election will soon be held to vote on the question of issuing $25,000 in bonds, the proceeds of which will be used for the construction of sewers.

Bayonne, N. J.—Bids will be received until 4 p.m., June 15, by the Board of Commissioners for the construction of a portion of the main sewer in the Second and Fifth Wards.

Camden, N. J.—Bids will be received until 8 p.m., June 21, by the Street and Highway Committee for the construction of sewers in various streets. Noted May 13.

Cliffside Park, N. J.—(Cliffside post office)—(Official)—Bids will be received until 8 p.m., June 14, by the City Council for the construction of Section 1 of the trunk sewer line. P. E. Brundage is Borough Clk.

✚Haddonfield, N. J.—The contract for the construction of storm sewers has been awarded to MANWARING & CUMMINGS, Philadelphia, Penn., at $6634.

Pitman, N. J.—The city contemplates the construction of a sewer system and two sewage-disposal plants. The estimated cost is $91,000.

Prospect Park, N. J.—(Paterson post office)—Plans are being prepared for the construction of a sewage-disposal plant. H. J. Harder, City Hall, Paterson, is Engr.

Woodbridge, N. J.—Bids will be received until 8:30 p.m., June 16, by the Township Committee for the construction of 10- and 8-in. vitrified pipe sewers in connection with the Port Reading sewer project. A. Keyes is Clk.

Beaver Falls, Penn.—At a recent election the citizens voted to issue $40,000 in bonds, the proceeds of which will be used for the construction of a sewage-disposal plant, an outfall sewer and for the completion of a sanitary sewer system. Noted Apr. 15.

✚**Ebenburgh, Penn.**—The contract for the construction of a sewage-disposal plant has been awarded to the PITT CONSTRUCTION CO., Pittsburgh, at $22,300. Other bids were: C. H. Haggart, $28,937; Loomis & King, $27,139; Dickey, $26,249. Noted May 13.

Scranton, Penn.—Plans have been prepared for the construction of 33,723 ft. of sewers in the 21st Ward. W. M. Shunk is City Engr.

South Brownsville, Penn.—Bids will be received until noon, June 14, by T. A. Waggoner, Borough Secy., for the construction of sewers. L. G. Moslener is Borough Engr.

✚**Baltimore, Md.**—The contract for the construction of storm water drains in various streets has been awarded to SLACK & SLACK CO. at $99,933.

Easton, Md.—The contract for the construction of sludge and sand filter beds at the sewage-disposal plant, and for extending the south outfall sewer will probably be awarded to C. W. Sigman, Easton, at $14,400. Noted May 6.

Dayton, Va.—See item under "Light, Heat and Power."

Mill Creek, W. Va.—The city contemplates the construction of a sewer system. Burton Wilson is Engr.

Winston Salem, N. C.—Bids will be received until June 15 by the city for the construction of a reinforced-concrete sewage-disposal plant and extending the sewers about 2½ miles. J. L. Ludlow is Engr. and L. F. Owen is Chn. of Sewer Com. Noted Oct. 8.

Tallapoosa, Ga.—At a recent election the citizens voted in favor of issuing $5000 in bonds, the proceeds of which will be used for the construction of sewers. Noted May 20.

✚**Miami, Fla.**—The contract has been awarded to J. J. QUINN CO. for constructing about six miles of sewers. This is the third section of the 18-mile sewer contract.

Tampa, Fla.—Bonds for $250,000 have been voted, the proceeds of which will be used for the completion of a sewer system. R. H. Martin is City Engr. Noted Apr. 29.

Okolona, Miss.—Bids will be received until 8 p.m., June 18, by J. H. Davis, City Clk., for sewer construction. Frank L. Wilcox, Syndicate Trust Bldg., St. Louis, Mo., is Engr.

Lexington, Ky.—Preliminary plans are being prepared by S. T. Crecelius, Engr., Louisville, for the construction of a sewage-disposal plant. Noted June 3.

✚**Cincinnati, Ohio**—(Official)—The contract for sewer construction has been awarded to WELLING & FRANZ, Cincinnati, at $37,177. Noted May 6.

✚**Cleveland, Ohio**—(Official)—The contract for the construction of the Superior Ave. sewer has been awarded to the AMATA CONSTRUCTION CO., Cleveland, at $23,239. Noted June 3.

Defiance, Ohio—(Official)—All bids received June 1 for sewer construction have been rejected. New bids will be received until June 17 by Clayton M. Rath, Dir. of Pub. Ser. Noted May 27.

Findlay, Ohio—(Official)—Bids were received June 5 by the Director of Public Service for the construction of Hagerman Run Conduit as follows: S. Renick, Findlay, $20,635; Marion Construction Co., Marion, $22,930; Summers & Hardin, Lima, $21,585; William Wilson, Findlay, $25,000; Whaley & Edwards, Milan, Mich., $25,291. H. A. Glathart is City Engr. Noted June 3.

Geneva, Ohio—Bids will soon be received by W. E. Morgan, Clk., for the construction of a sewage-disposal plant. The estimated cost is $27,000.

Lindenwald, Ohio—(Hamilton post office)—Plans are being prepared for the construction of a sewage-disposal plant and a sewer system. Frank E. Weaver is City Engr.

✚**Marion, Ohio**—The contract for the construction of sewers in Indiana Ave. has been awarded to SCOTT & WESTON, at $16,195; to HARRY KOHBARGER, at $6318, for constructing sewers in Pleasant St. Noted Apr. 29.

✚**Rittman, Ohio**—(Official)—The contract for the construction of a sewer system has been awarded to SHULLO BROS. & NICKELES, Canton, at $18,198. The six next lowest bids were: E. M. Scheflow, Elgin, Ill., $19,998; William H. Hunt & Son, Akron, $20,661; McLoughlin Construction Co., Pittsburgh, Penn., $20,764; Boyd & Cook, Dayton, $20,907; W. J. Irvin, Greenville, $21,731; C. A. Pierce, Rittman, $24,366. There were 18 bidders. Noted May 6.

✚**Rittman, Ohio**—(Official)—The contract for the construction of a sewage-treatment plant has been awarded to C. A. PIERCE, Rittman, at $29,045. Other bids were: Thomas P. Egan, Cleveland, $33,120; W. S. Newhall, Cleveland, $33,458; Kent Construction Co., Kent, $32,362; T. Wildeson & Son, Mansfield, $32,332; Pitt Construction Co., Pittsburgh, Penn., $32,205; J. M. Bick, Toledo, $32,699; Dequesne Contracting Co., Pittsburgh, Penn., $35,686; J. C. Devine Co., Alliance, $36,029; C. N. Haggart, Pittsburgh, Penn., $35,332; Lowensohn & Ule, Cleveland, $34,609; R. T. Bailey, Kent, $32,689; W. H. Ralstron, Mt. Vernon, $35,026. R. Winthrop Pratt, Cleveland, is Consult. Engr. Noted May 6.

Zanesville, Ohio—Bids will be received until noon, June 21, by the Director of Public Service for the construction of sanitary sewers, also for improving sewers in Kelley St.

Frankfort, Ind.—(Official)—Bids will be received until 2 p.m., June 17, by C. H. Cohee, City Clk., for the construction of the South West District sanitary sewer and the South West Local sanitary sewer. The estimated cost is $14,650. R. H. Boynton is City Engr. Noted June 3.

Flint, Mich.—Bids will be received until 3 p.m., June 16, by D. E. Newcombe, City Clk., for the construction of sanitary sewers.

Grand Rapids, Mich.—Bids will be received about July 1 for the construction of six miles of 8- to 18-in. pipe sewers and a sewage-disposal plant. The estimated cost is $50,000 and $10,000, respectively. James R. Rumsey, 400 Houseman Bldg., East Grand Rapids, is Engr.

Chicago, Ill.—Bids will be received until June 24 by John McGillen, Clk., Sanitary Dist., for the construction of the Calumet Intercepting Sewer, Contract No. 3.

Ottawa, Ill.—Bids will be received until 10 a.m., June 14, by the Board of Local Improvements for the construction of a sewer system.

✚**Peoria, Ill.**—The contract for the construction of the northwestern section of the North Peoria sewer has been awarded to the A. D. THOMPSON CO. at $5128. Noted June 3.

✚**Rockford, Ill.**—The Board of Local Improvements has awarded the contract to TOLE & CO., at $4000, for the construction of sewers in Adams, Crosby and Montague St.

✚**Green Bay, Wis.**—The contract for sewer construction has been awarded to C. P. FLATLEY, Green Bay. Bids were opened May 27.

Kohler, Wis.—(Fredonia post office)—See item under "Water Supply—Irrigation."

✚**Kenosha, Wis.**—The contract for the construction of the 1915 plan of storm sewers has been awarded to A. H. PRANGE, Grand Rapids, Mich., at approximately $102,000.

Milwaukee, Wis.—John F. Casey Co., 1214 Oliver Bldg., Pittsburgh, Penn., submitted the lowest bid at $193,422 for the construction of intercepting sewers and for making connections with the West Side sewer.

Racine, Wis.—Bids will be received until 10 a.m., June 12, by the Board of Public Works for the construction of sewers in Washington Ave. from West Blvd. to Lathrop Ave.

Ripon, Wis.—(Official)—No bids were received May 31 by the Board of Public Works for the reconstruction of the southeastern bed of sewers. C. L. Pratt is City Engr. and J. W. Pierce is City Clk. Noted May 6.

✚**Waukesha, Wis.**—The Board of Public Works has awarded the contract for the construction of 7364 lin.ft. of sanitary sewers to FRANK C. CARYLL, Waukesha, at $4584.

✚**West Allis, Wis.**—(Official)—The contract for the construction of sewers has been awarded to the PUBLIC SERVICE CONSTRUCTION CO., Omaha, Neb., at $8071. Other bids were: A. C. Schrertis, Manitowoc, $8439; Kroening Construction Co., Milwaukee, $8703; F. E. Kaminski, Watertown, $9134; James B. Forristal, Milwaukee, $9229; C. J. Mority, West Allis, $9389. Noted May 13.

Clinton, Iowa—Bids will soon be received for the construction of approximately 1½ miles of sewers in District No. 2. J. G. Thorne is Engr.

Lake Mills, Iowa—(Official)—Bids will be received until 7 p.m., June 14, by O. N. Styve, Town Clk., for the construction of a sewer system and a sewage-disposal plant. The estimated cost is $25,000. Noted May 20.

✚**Mt. Ayr, Iowa**—(Official)—The contract for the construction of a sewer has been awarded to the MATHEWS CONSTRUCTION CO., Kansas City, Mo., at $32,071. E. T. Archer & Co., 406 New England Bldg., Kansas City, Mo., is Engr.

Duluth, Minn.—The City Council contemplates appropriating $10,000 for the construction of storm sewers and $13,000 for the construction of sanitary sewers.

✚**Duluth, Minn.**—The contract for furnishing sewer material for the season of 1915 has been awarded to the DULUTH BUILDERS' SUPPLY CO. at $18,695.

Rochester, Minn.—Bids will soon be received for the construction of sewers. J. C. Utton is City Engr.

✚**St. Peter, Minn.**—The contract for sewer construction has been awarded to L. OVERN, at $7220.

Winona, Minn.—Preliminary plans are being prepared by H. B. Walling, City Engr., for the construction of sewers.

Omaha, Neb.—Low bids for sewer work were received by the Sewer Commission from: J. J. Hannigan Co., at $18,230, for sewers in 51st St. and Poppleton Ave.; A. G. Schreiber, at $1180 and $53,495, respectively, for sewers in Grant St. and Miller Park. Noted June 3.

Mandan, N. D.—The city contemplates the construction of storm sewers estimated to cost $35,000.

Minot, N. D.—E. J. Thomas, City Engr., is preparing plans for the construction of sewers east and south of Riverside Park. The estimated cost is $20,000.

Whitehall, Mont.—(Official)—The city contemplates the construction of a sewer system and water-works. The estimated cost is $30,000. George E. Baker is City Engr.

★**Kirksville, Mo.**—(Official)—Bids will be received until 7 p.m., June 28, by C. E. Murrell, Mayor, for the construction of storm sewers in the Joint Storm Sewer District No. 3. C. V. Dowing is Engr. and O. D. McKasson is City Clk.

Beaumont, Tex.—At a recent election the citizens voted to issue $30,000 in bonds, the proceeds of which will be used for the construction of sewers. C. L. Scherer is City Engr. Noted May 6.

✚**Dallas, Tex.**—The Southern Methodist University has awarded the contract to the WINSLETT-ELDRERGE CO., at $6000, for constructing about one mile of 10-in. sewer. This will complete the main sewer work on the campus.

Tulsa, Okla.—The city contemplates holding an election to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for the construction of sewers. T. C. Hughes is City Ergr.

Enumclaw, Wash.—The City Council contemplates the construction of sewers in Cole, Well, Porter and Marion St. and in Lincoln and Monroe Ave. The estimated cost is $11,000.

Olympia, Wash.—The city will construct a trunk sewer in Franklin St. from Maple Park to 11th St. The estimated cost is $12,000.

Seattle, Wash.—According to the report submitted to the City Council by A. H. Dimock, City Engr., the estimated cost of constructing the Ballard Trunk sewer is $408,654.

Forest Grove, Ore.—It is reported that the City Council is considering plans for the construction of a sewer system.

Portland, Ore. — Plans are being prepared by E. Sharp, Engr., for the reconstruction of the Tanner Creek sewer from

Washington St. to the Willamette River. The estimated cost is $300,000.

El Centro, Calif.—(Official)—At a recent election the citizens voted to issue $250,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

Fresno, Calif.—The Board of Trustees contemplates holding a special election to vote on the question of issuing $300,000 in bonds, the proceeds of which will be used for the improvement of the sewer system and for constructing an outfall sewer.

Imperial, Calif.—(Official)—Bonds for $65,000 have been voted, the proceeds of which will be used for the construction of part of a sewer system that will pass through the city from El Centro.

Sacramento, Calif.—The city contemplates the construction of a 10-in. vitrified ironstone pipe sewer in Freeport Rd. from Burnside to El Dorado Ave. The estimated cost is $5000.

✚Sacramento, Calif.—The contract for the construction of Unit No. 1 of the trunk line sewer in Riverside Rd. has been awarded to the MATTHEWS CONSTRUCTION CO., Forum Bldg., Sacramento, at $42,460. Noted May 27.

✚Stratford, Ont.—The contract for 6200 ft. of 48-in. and 5400 ft. of 36-in. sewer pipe has been awarded to BRENNAM & HOLLINGSWORTH, Hamilton, at $25,891.

GARBAGE

Buffalo, N. Y.—Bonds for $80,000 have been voted by the Council, the proceeds of which will be used for the removal of garbage. Noted Oct. 29.

✚New York, N. Y.—Official)—The contract has been awarded to the PRODUCTS MFG. CO., 2 Rector St., at $44,730, by the Department of Health, for the removal of night soil. Noted May 13 and 27.

✚Sheboygan, Wis.—The contract for constructing a garbage disposal plant has been awarded to C. E. HUNTER CO., at $8785. Noted Dec. 24 and May 20.

Joplin, Mo.—At a recent election the citizens voted against the question of issuing bonds for $12,500, the proceeds of which was to have been used for the installation of an incinerator. Noted Jan. 21 and May 20.

STREETS AND ROADS

Bangor, Maine—Bids will be received until 11 a.m., June 18, by the State Highway Commission for constructing a section of the State Highway. L. H. Nelson is Chn. of Comn.

✚Derry, N. H.—The contract for constructing the Rockingham Rd. in Salem and Derry has been awarded to ANTONIO PALLOTTE, 117 Crosby St., Lowell, Mass. Noted May 20.

✚Boston, Mass.—The contract for the construction of a section of the State Highway in Sutton and Uxbridge Townships has been awarded to P. A. MOYNIHAN, South Hamilton, at $36.20. Other bids were: C. E. Horne, Millbury, $3840; R. H. Newell, Uxbridge, $3896; H. M. Ellison Uxbridge, $4560; Webster & Gridley Contracting Co., Webster, $4600; Perini Construction Co., Ashland, $4616; F. E. Ellis, Melrose, $4640; O. G. Benedict, Pittsfield, $5300; Way & Cellili, Springfield, $5490; Middlesex Contracting Co., Hudson, $5740; Martin de Mateo Co., Roxbury, $8600; Thomas Kelley & Co., Roxbury, $11,890. Noted May 27.

Boston, Mass.—(Official)—Bids will be received until noon, June 11, by the Commissioner of Public Works for constructing a bituminous macadam roadway in Augustus Ave. from Poplar St. to beyond Clarendon Ave., West Roxbury District. P. O'Hearn is Acting Comr. of Pub. Wks.

✚Boston, Mass.—The contract for paving with asphalt Mayhew St. from Boston to Roseclair St. in Dorchester District has been awarded to the CHARLES J. JACOBS CO., at $7444. Noted May 20

Brookline, Mass.—Bids will be received until 4 p.m., June 14, by the Board of Selectmen for laying about 9000 sq.ft. of wooden block in Washington St. Henry A. Varney is Town Engr.

Northampton, Mass.—The city plans to pave North King St. with asphalt, at an estimated cost of $30,000. As this connects with the State Highway the State Highway Commission will contribute $19,000 toward the cost.

✚Providence, R. I.—The contract for reconstructing 4765 ft. of state highway in Warwick has been awarded to AMOS D. BRIDGE'S SONS, INC., Hazardville, at $8444.

Hartford, Conn.—Bids were received June 1, by Charles Bennett, State Highway Comr., for constructing roads as follows: Milford Township, about 21,360 sq.yd. 3-in. bituminous macadam surfacing using (a) tar or (b) asphalt as binder: Kellogg & Gregory Co., Danbury, (a) $18,598, (b) $22,657; Leonardo Suzio, Meriden, (a) $20,910, (b) $23,367; Goodman & Trumbull Co., Litchfield, (a) $17,248, (b) $17,087; Connecticut Good Roads & Construction Co., New Britain, (a) $21,296, (b) $25,301; John De Michiel & Bro., Torrington, (a) $23,170, (b) $24,344; B. D. Pierce, Jr., Co., Bridgeport, (a) $17,397, (b) $23,271; C. W. Blakeslee & Sons, New Haven, (a) $18,981, (b) $22,746; Thomas Kearney, Meriden, (a) $19,099, (b) $22,768; R. D. Daley Contracting Co., New Haven, (a) $17,723, (b) $19,058; Charles T. Eastburn Co., Yardley, Penn., (a) $21,841, (b) $24,458; A. D. Bridge's Sons, Inc., Hazardville, (a) $19,497, (b) $23,230, using Texas binder, $19,230. Andover Township, about 7300 lin.ft. native stone macadam on the Hebron Rd.: Ahern Construction Co., Willimantic, $12,238; Alco Construction Co., 178 North St., Boston, Mass., $11,748; A. Brazos & Sons, Middletown, $13,784; Archie B. Cadwell, New Britain, $11,479; Piersen Engineering & Contracting Co., Hartford, $14,192; Goodman & Trumbull Co., Litchfield, $11,882; A. D. Bridge's Sons, Inc., Hazardville, $12,383; Robert G. Miller Contracting Co., Hartford, $12,643; Frank A. Wilcox, Norwich, $13,122; Stafford & Mather, Hartford, $13,433. Barkhamsted Township, about 6160 lin.ft. native stone macadam on the Pleasant Valley Rd.: Kellogg & Gregory Co., Danbury, $15,042; Leonardo Suzio, Meriden, $14,673; Goodman & Trumbull Co., Litchfield, $15,802; Archie B. Cadwell, New Britain, $12,316; A. Brazos & Sons, Middletown, $17,366; B. D. Pierce, Jr., Co., Bridgeport, $13,023; John de Michiel & Bro., Torrington, $11,181; Stafford & Mather, Hartford, $13,395; Piersen Engineering & Contracting Co., Hartford, $15,987; Louis Longhi & Bro., Torrington, $13,572; A. B. Bozzi, 54 Lewis St., Torrington, $13,169. Somers Township, about 3198 lin.ft. native stone macadam on the Somers-Stafford Rd.: Donahue Bros., Middletown, $8118; A. D. Bridge's Sons, Inc., Hazardville, $5888; John de Michiel & Bro., Torrington, $7120. Hartford City, about 13,790 sq.yd. concrete roal using washed (a) or unwashed (b) sand on Maype Ave.: B. D. Pierce, Jr., Co., Bridgeport, (a) $22,549, (b) $21,145; Piersen Engineering & Contracting Co., Bristol, (a) $20,293, (b) $19,871; Connecticut Good Roads & Construction Co., New Britain, (a) $24,979, (b) $23,799; W. T. Ryan Construction Co., Barker St., Hartford, (a) $20,677, (b) $20,115; A. C. Sternberg, Jr., Construction Co., West Hartford, (a) $18,872, (b) $18,451; O'Neil Bros., Hartford, (a) $19,128, (b) $18,482; Connecticut Hassam Paving Co., New Haven, (a) $21,741, (b) $20,336; Leonardo Suzio, Meriden, (a) $18,343, (b) $17,949; Thomas Kearney, Meriden, (a) $22,624, (b) $18,410. Hartland Township, about 8300 lin.ft. native stone macadam: B. D. Pierce, Jr., Co., Bridgeport, $14,780; Archie B. Cadwell, New Britain, $14,892; Kellogg & Gregory Co., Danbury, $13,621; Leonardo Suzio, Meriden, $13,869; Stafford & Mather, Hartford, $13,638; Piersen Engineering & Contracting Co., Hartford, $15,116; A. Brazos & Sons, Middletown, $18,608; Louis Longhi & Bro., Torrington, $12,293; Goodman & Trumbull Co., Litchfield, $14,544; John de Michiel & Bro., Torrington, $10,715. Noted May 20.

✚★Albany, N. Y.—(Official)—Bids were received June 1 by Edwin Duffey, State Highway Comr., and contracts awarded for improving roads in various counties as follows:

Repair Contract No. 778, Albany County, 16.25 miles: JOHN P. DUGAN & CO., Amsterdam, $10,062 (awarded contract); W. L. Lawton, Glens Falls, $10,499; Gleason & Davitt, Albany, $10,545; M. F. Dollard, Albany, $10,683; George Holler, Albany, $10,807.

Repair Contract No. 716, Chenango County, 5.21 miles: NASH & GRIFFIN, Norwich, $1100 (awarded contract); John H. Gordon, Albany, $1106; Paddleford & King, Sherburne, $1225; Harry W. Roberts & Co., Utica, $1302; Richard Hopkins, Troy, $1354; Rhodes & Adams, Smithville Flats, $1426.

Repair Contract No. 693, Chenango County, 8.92 miles: NASH & GRIFFIN, Norwich, $4485 (awarded contract); Connors & Gallivan, Elmira, $4622; Paddleford & King, Sherburne, $4682; Harry W. Roberts & Co., Utica, $4704; Rhodes & Adams, Smithville Flats, $4749; Richard Hopkins, Troy, $4897.

Repair Contract No. 770, Clinton County, 14.15 miles: RICHARD HOPKINS, Troy, $5293 (awarded contract); Boynton & McNally, Keeseville, $5888; James Conway, Plattsburg, $5972; Spellman-Oliver Co., Chateaugay, $6120; Connors & Gallivan, Elmira, $6322.

Repair Contract No. 750, Cortland County, 13.37 miles: PATHFINDER CONSTRUCTION CO., INC., Fulton, $3694 (awarded contract); Richard Hopkins, Troy, $3728; Nash & Griffin, Norwich, $3857; A. L. Call, Cortland, $4052; John H. Weidman, Syracuse, $4126; McGreevey, McGuigan & Baum Construction Co., Elmira, $4230; Dana W. Robins Co., Inc., New York, $4913.

Repair Contract No. 719, Delaware and Schoharie Counties, 31.82 miles: PAUL GSANGER, Monsey, $7095 (awarded contract); Nash & Griffin, Norwich, $7888; Richard Hopkins, Troy, $8012; Schunnemunk Construction Co., Highland Mills, $8104; John P. Dugan & Co., Amsterdam, $8527.

Repair Contract No. 779, Erie County, 29.03 miles: FRED W. KNICKENBERG, Buffalo, $12,591 (awarded contract); Dale Engineering Co., Inc., Utica, $13,693; John M. Hackett, Dunkirk, $14,517; John W. Landel, Tonawanda, $14,949.

Repair Contract No. 769, Essex County, 15.03 miles: DEFIANCE CORPORATION, Ticonderoga, $6441 (awarded contract); W. L. Lawton, Glens Falls, $6492; Boynton & McNally, Keeseville, $6874.

Repair Contract No. 771, Essex County, 15.05 miles: JOHN F. LEWIS, Albany, $4819 (awarded contract); Defiance Corporation, Ticonderoga, $4826; Boynton & McNally, Keeseville, $4958; W. L. Lawton, Glens Falls, $5494.

Repair Contract No. 773, Fulton County, 19.90 miles: WILLIAM J. MORRISSEY, Saratoga Springs, $5828 (awarded contract); Clarence Welsh & Co., Gloversville, $6721; John P. Dugan & Co., Amsterdam, $7028; Dale Engineering Co., Utica, $7097; De Barber & Hill, Fulton, $7412; R. D. Cooper, Little Falls, $7733; Eastover Construction Co., Inc., Utica, $8991.

Repair Contract No. 661, Herkimer County, 25.35 miles: JOHN P. DUGAN & CO., Amsterdam, $7433 (awarded contract); Harry W. Roberts & Co., Utica, $8121; De Barber & Hill, Fulton, $8380; S. A. Seymour, Herkimer, $8569; R. D. Cooper, Little Falls, $8976; Eastover Construction Co., Inc., Utica, $10,181; John A. Jova, Inc., Newburgh, $10,181.

Repair Contract No. 766, Jefferson and St. Lawrence Counties, 23.18 miles: RICHARD HOPKINS, Troy, $9355 (awarded contract); Arthur F. McConville, Ogdensburg, $10,753; De Barber & Hill, Fulton, $10,827; Defiance Corporation, Ticonderoga, $10,976; Young & Hyde, New York, $12,754; James E. Martin, Utica, $13,042.

Repair Contract No. 733, Madison County, 12.90 miles: NASH & GRIFFIN, Norwich, $4788 (awarded contract); De Barber & Hill, Fulton, $4790; Richard Hopkins, Troy, $4963; Harry W. Roberts & Co., Utica, $4970.

Repair Contract No. 724, Monroe County, 21.36 miles: RIBSTINE-HOLTER CO., INC., Rochester, $5630 (awarded contract); Dale Engineering Co., Utica, $5668; Crouch Bros., Rochester, $5727.

Repair Contract No. 681, Montgomery County, 14.96 miles: WILLIAM J. MORRISSEY, Saratoga Springs, $5009 (awarded contract); Charles Scott, Fort Plain, $5558; John P. Dugan & Co., Amsterdam, $5622; Harry W. Roberts & Co., Utica, $5925; De Barber & Hill, Fulton, $5978; R. D. Cooper, Little Falls, $6191; James E. Martin, Utica, $7542.

Repair Contract No. 765, Montgomery County, 2.50 miles: JOHN P. DUGAN & CO., Amsterdam, $2533 (awarded contract); Clarence Welsh & Co., Gloversville, $2779: James E. Martin, Utica, $3191.

Repair Contract No. 717, Orange County, 5.94 miles: SCHUNNEMUNK CONSTRUCTION CO., Highland Mills, $2006 (awarded contract); James L. Kehoe, Newburgh, $2468; Thomas J. Martin, Beacon, $2281; Conway Bros. & Kennedy, Eddyville, $2397; William Doyle, Saugerties, $2412; John A. Jova, Inc., Newburgh, $2462; Paul Gsanger, Monsey, $2686.

Repair Contract No. 776, Orange County, 3.22 miles: SCHUNNEMUNK CONSTRUCTION CO., Highland Mills, $19,045 (awarded contract); James L. Kehoe, Newburgh, $19,783; Blankfield & Donovan, Kingston, $19,789; Port Jervis Construction Co., Port Jervis, $20,484; Paul Gsanger, Monsey, $20,541; Thomas J. Martin, Beacon, $21,393; William Doyle, Saugerties, $21,867; Juniata Co., Philadelphia, Penn., $22,689; Connors & Gallivan, Elmira, $23,149.

Repair Contract No. 657, Otsego County, 6.19 miles: SCHUNNEMUNK CONSTRUCTION CO., Highland Mills, $6444 (awarded contract); Connors & Gallivan, Elmira, $2560; Lane Construction Corporation, Meriden, Conn., $6661; George Holler, Albany, $6675; Sherman Contracting Co., Inc., Oneonta, $6779.

Repair Contract No. 777, Rensselaer County, 2.34 miles: GLEASON & DAVITT, Albany, $5158 (awarded contract); Thomas H. Karr, Troy, $5230; James J. Rigney, Rensselaer, $5385; Richard Hopkins, Troy, $5614; County Construction Co., Troy, $5626.

Repair Contract No. 761, Rensselaer County, 22.99 miles: PAUL GSANGER, Monsey, $6795 (awarded contract); the Defiance Corporation, Ticonderoga, $7981; B. Gaffney & Sons, Saratoga Springs, $8518; Gleason & Davitt, Albany, $8537; W. L. Lawton, Glens Falls, $8925; Thomas H. Karr, Troy, $9170; George Holler, Albany, $9383; Richard Hopkins, Troy, $9439; County Construction Co., Troy, $9709; McLaughlin Co., Whitehall, $10,153.

Repair Contract No. 780, St. Lawrence County, 5 miles: ARTHUR F. McCONVILLE, Ogdensburg, $27,410 (awarded contract); Flood & Van Wirt Co., Hudson Falls, $28,898; Eggleston & Garthwaite, Yonkers, $30,638; Richard Hopkins, Troy, $30,863; Young & Hyde, New York, $31,932; James E. Martin, Utica, $33,928.

Repair Contract No. 715, Saratoga County, 20.59 miles: PAUL GSANGER, Monsey, $6731 (awarded contract); W. H. Gailor, Saratoga Springs, $7091; John P. Dugan & Co., Amsterdam, $7113; William J. Morrissey, Saratoga Springs, $7434; William L. Sherrill, Hudson Falls, $7513; Gleason & Davitt, Albany, $7538; W. L. Lawton, Glens Falls, $7840; George Holler, Albany, $8238; McLaughlin Co., Whitehall, $8320; County Construction Co., Troy, $8588.

Repair Contract No. 768, Schenectady County, 18.88 miles: JOHN P. DUGAN & CO., Amsterdam, $10,754 (awarded contract); J. J. Malloy, Schenectady, $11,740.

Repair Contract No. 764, Steuben County, 4.28 miles: McGREEVEY, McGUIGAN & BAUM CONSTRUCTION CO., Elmira, $22,925 (awarded contract); Kennedy Construction Co., Albany, $23,010; John C. Bradley, Corning, $23,471; Connors & Gallivan, Elmira, $25,632; Juniata Co., Philadelphia, Penn., $27,208; Young & Hyde, New York, $27,323.

Repair Contract No. 714, Sullivan County, 3.56 miles: NASH & GRIFFIN, Norwich, $997 (awarded contract); D. C. Bonnell, Liberty, $1048.

Repair Contract No. 772, Warren County, 15.38 miles: DEFIANCE CORPORATION, Ticonderoga, $7030 (awarded contract); William L. Sherrill, Hudson Falls, $7102; Gleason & Davitt, Albany, $7358; W. L. Lawton, Glens Falls, $7497; C. J. Reardon, Glens Falls, $7669; Boynton & McNally, Keeseville, $8610.

Repair Contract No. 760, Washington County: JOHN P. DUGAN & CO., Amsterdam, $10,082 (awarded contract); Richard Hopkins, Troy, $10,494; William L. Sherrill, Hudson Falls, $10,502; W. L. Lawton, Glens Falls, $10,798; Gleason & Davitt, Albany, $11,296; Defiance Corporation, Ticonderoga, $11,147; George Holler, Albany, $11,712; McLaughlin Co., Whitehall, $11,848. Noted May 13.

★Albany, N. Y.—(Official)—Bids were received June 4, by Edwin Duffey, State Highway Comr., for constructing roads as follows:

Road No. 1279, Albany County, 3.41 miles: Curran Corporation, Middletown, Conn., $27,851; Alonzo Schaupp, Guilderland, $28,899; Criswell & Mallory, Inc., Mechanicsville, $29,234; F. A. Biggi, Brooklyn, $31,082; J. J. Malloy, Schenectady, $31,493; Ahern Construction Co., Willimantic, Conn., $32,384; George Holler, Albany, $32,910.

Road No. 1280, Albany County, 5.76 miles: David H. Craw, Ravena, $56,736; C. W. Tryon, Boyntonville, $57,858; George H. McAvoy, Creek Locks, $58,464; John H. Gordon, Albany, $59,582; F. A. Biggi, Brooklyn, $59,690; James Anderson, Menands, $60,051; Ahern Construction Co., Willimantic, Conn., $61,144; Brady-Oltarsh Construction Co., Inc., New York, $62,570.

Road No. 5555, Albany County, 4.20 miles: Thomas H. Karr, Troy, $47,414; Brown & Lowe, Schenectady, $48,225; George H. Totty, Cohoes, $49,897; Ahern Construction Co., Willimantic, Conn., $50,033; Belmar Contracting Co., Inc., Troy, $52,672; F. A. Biggi, Brooklyn, $52,826; Alonzo Schaupp, Guilderland, $52,856; George J. Holler, Albany, $53,219; Criswell & Mallory, Inc., Mechanicsville, $53,288; E. J. Latus, Albany, $55,244.

Road No. 5259-A, Cattaraugus County, 4.29 miles: James Rossney, Buffalo, $55,934; Woolsey Construction Co., Poughkeepsie, $57,310; Fred E. Gross & Son, Yonkers, $57,550; McNerny Construction Co., Canton, Penn., $57,570; Dunkirk Construction Co., Dunkirk, $58,047; Criswell & Mallory, Inc., Mechanicville, $58.504; O. M. Severson & Co., Erie, Penn., $59,390; Cattaraugus Engineering Co., Olean, $59,466; Galway Construction Co., New York, $59,784; Parker-Hassam Paving Co., Worcester, Mass., $61,086; Crescent Concrete Co., Buffalo, $61,259; Juniata Co., Philadelphia, Penn., $63,570.

Road No. 5432-A, Chemung and Schuyler Counties, 8.98 miles: Ford Bros., Elmira, $89,686; Peter F. Connolly Co., Horseheads, $96,678· Brady-Oltarsh Construction Co., Inc., New York, $98,183.

Road No. 1285, Essex County, 3.31 miles: Bluff Point Stone Co., Plattsburg, $29,461; John F. Lewis, Albany, $31,836; Boynton & McNally, Keeseville, $32,522; F. A. Biggi, Brooklyn, $34,628; Juniata Co., Philadelphia, Penn., $34,671; Brady-Oltarsh Construction Co., Inc., New York, $34,767; W. L. Lawton, Glens Falls, $35,296; John A. Jova, Inc., Newburgh, $35,781.

Road No. 1286, Essex County, 0.52 mile: Rumph & Stevens, Lake Placid, $5688; E. M. & Paul J. Merrill, Saranac Lake, $5894.

Road No. 1227, Jefferson County, 4.60 miles: James E. Martin, Utica, $56,474; Criswell & Mallory, Inc., Mechanicsville, $57,795; McNerney Construction Co., Canton, Penn., $58,305; Juniata Co., Philadelphia, Penn., $59,366; Weed & Walsh, Mechanicsville, $59,666; Brown & Lowe Co., Schenectady, $60,191; Eggleston & Garthwaite, Yonkers, $60,223; Burns Bros. & Maley, Watertown, $60,843; Chambers & Barnes, Rochester, $62,112; William H. Ring Contracting Co., Ogdensburg, $62,476; Galway & Co., New York, $62,607; Cattaraugus Engineering Co., Olean, $62,609; Richard Hopkins, Troy, $64,877; Parker-Hassam Paving Co., Worcester, Mass., $65,692.

Road No 1281, Monroe County, 8.39 miles: P. H. Murray, Rochester, $73,891; Ribstine-Holter Co., Inc., Rochester, $74,792; McNerney Construction Co., Canton, Penn., $76,931; Whitmore-Rauber & Vicinius, Rochester, $79,585; L. M. Ludington Sons, Inc., Rochester, $80,501; George Holler, Albany, $81,006; Greece Construction Co., Rochester, $82,573; Chambers & Barnes, Rochester, $88,787; Frank S. & Anthony Sporato, Syracuse, $89,191.

Road No. 1282, Monroe County 1.51 miles: Morrison & Quinn, Inc., Rochester, $17,852; Goodrich & Truesdale, Barnard, $17,912; Michael O'Brien, Cortland, $17,986; Whitmore-Rauber & Vicinius, Rochester, $18,158; Greece Construction Co., Rochester, $18,505; Young & Hyde, New York, $18,807; McNerny Construction Co., Canton, Penn., $18,712

Road No. 1159, Oneida County, 7.76 miles: H. B. Sprou Construction Co., Peekskill, $82,944; John H. Gordon, Albany, $83,992; James Anderson, Menands, $84,998; Westchester-Dutchess Corporation, Mt. Vernon, $87,361; Dale Engineering Co., Utica, $87,443; Brady-Oltarsh Construction Co., Inc., New York, $87,678; J. G. Hayes & Co., Inc., Rome, $89,908; Conroy & Nixdorf, Oneida, $89,998; Fred E. Ellis, Melrose, Mass., $93,855.

Road No. 5328-B, Orange County, 6.27 miles: Schunnemunk Construction Co., Highland Mills, $73,445; John L. Hayes Construction Co., Yonkers, $74,039; Fred E. Gross & Son, Yonkers, $75,506; Henry Clinton, Poughkeepsie, $75,820; John J. Guinan Contracting Co., Brooklyn, $76,671; C. W. Tryon, Boyntonville, $76,404; Westchester-Dutchess Corporation, Mt. Vernon, $77,301; Brady-Oltarsh Construction Co., Inc., New York, $79,014; Ruddy-Saunders Construction Co., Troy, $81,571; Fulton Engineering Co., Inc., Albany, $83,450.

Road No. 580, Orleans County, 2.87 miles: Thomas Holahan, Rochester, $39,878; Rhody & Clawson, Albion, $42,069; McNerny Construction Co., Canton, Penn., $42,148; Whitmore-Rauber & Vicinius, Rochester, $44,104; Westchester-Dutchess Corporation, Mt. Vernon, $45,919.

Road No. 581, Orleans County, 7.46 miles: Michael Murphy, Rochester, $65,035; McNerney Construction Co., Canton, Penn., $77,267; Westchester Dutchess Corporation, Mt. Vernon, $79,601; E. R. Weed & Son, Holley, $85,101.

Road No. 5550, Orleans County, 0.17 mile: Rhody & Clawson, Albion, $2948; Arlington Construction Co., Rochester, $3010.

Road No. 1287, Oswego County, 7.75 miles; Brown & Lowe Co., Schenectady, $62,846; F. A. Biggi, Brooklyn, $63,989; P. H. Murray, Rochester, $64,621; Stanley Construction Co., Buffalo, $65,642; Semper Bros., Watertown, $65,835; Thomas Grady, Rochester, $66,006; McNerney Construction Co., Canton, Penn., $66,591; Sullivan Construction Co., Syracuse, $66,714; H. B. Sproul Construction Co., Inc., Peekskill, $67,212; Fred E. Gross & Son, Yonkers, $67,455; J. H. Weidman, Syracuse, $68,090.

Road No. 1288, Oswego County, 5.12 miles: Brown & Lowe Co., Schenectady, $37,343; P. H. Murray, Rochester, $41,722; Thomas Grady, Rochester, $43,438; Spellman-Oliver Co., Chateaugay, $43,985; H. B. Sproul Construction Co., Inc., Peekskill, $44,327; J. H. Weidman, Syracuse, $44,420; Ross-Hallenbeck Construction Co., Copenhagen, $45,000; Stanley Construction Co., Buffalo, $45,116; J. A. Culkin, Oswego, $45,265; Semper Bros., Watertown, $45,875; Criswell & Mallory, Inc., Mechanicsville, $46,911; Weed & Walsh, Mechanicsville, $46,490.

Road No. 1261, St. Lawrence County, 5.66 miles: Ross-Hallenbeck Construction Co., Copenhagen, $68,770; McNerney Construction Co., Canton, Penn., $70,749; Henry P. Burgard, Buffalo, $71,277; James E. Martin, Utica, $72,495; Eggleston & Garthwaite, Yonkers, $74,341; Cattaraugus Engineering Co., Olean, $79,934; Stanley Construction Co., Buffalo, $79,955.

Road No. 5474-A, Schuyler and Tompkins Counties, 7.60 miles: Hendrickson-McCabe Construction Co., Spencerport, $54,261; Brady-Oltarsh Construction Co., Inc., New York, $58,059; Albert Gaffney, Syracuse, $61,705.

Bids were received June 4, by the State Commission of Highways, 55 Lancaster St., Albany, for the repair of public highways by State Aid, as follows:

Repair Contract No. 781, Albany County, 0.53 mile: George Holler, Albany, $3)780; Thomas H. Karr, Troy, $4014.

Repair Contract No. 785, Albany County, 11.22 miles: John W. Flynn, Waterford, $36,495; W. L. Lawton, Glens Falls, $39,598; Brown & Lowe Co., Schenectady, $39,903.

Repair Contract No. 726, Dutchess County, 12.88 miles: Thomas J. Martin, Beacon, $9708; Conway Bros. & Kennedy, Eddyville, $10,132; William Doyle, Saugerties, $10,154; Henry Clinton, Poughkeepsie, $10,265; R. B. Kain & Co., Hopewell Junction, $10,310; Edward Hartney, Modena, $10,324; Lyndon Contracting Corporation, Albany, $10,726; John A. Jova, Inc., Newburgh, $10,728; William R. Kinney, Albany, $10,932; George Holler, Albany, $11,315.

Repair Contract No. 701, Oswego County, 3.09 miles: De Barber & Hill, Fulton, $9568; Pathfinder Construction Co., Fulton, $9790; J. H. Weidman, Syracuse, $10,575; Lyndon Contracting Corporation, Albany, $11,726.

Repair Contract No. 774, Rensselaer County, 1.43 miles: William L. Sherrill, Hudson Falls, $9999; Thomas H. Karr, Troy, $10,704; Kingsbury Construction Co., Hudson Falls, $10,738; George Holler, Albany, $11,948.

Repair Contract No. 600, Schenectady County, 3.94 miles: Brown & Lowe Co., Schenectady, $26,417; William L. Sherrill, Hudson Falls, $28,298; John P. Dugan & Co., Amsterdam, $30,434; Thomas H. Karr, Troy, $31,410; Criswell & Mallory, Inc., Mechanicsville, $31,735; Belmar Contracting Co., Inc., Troy, $31,910; George Holler, Albany, $32,691.

Bids were received June 4, by the State Commission of Highways, 55 Lancaster St., Albany, for the furnishing of quantities of broken stone, as follows:

Broken Stone Contract No. 58, Niagara County, 37.98 miles, 1400 tons: John W. Landel, Tonawanda, $2512; J. R. Gould, Lockport, $2605; F. H. Wells, Corfu, $3024; William D. Dickinson, Lockport, $2508.

Broken Stone Contract No. 49, Seneca County, 17.32 miles, 355 tons: Richard Hopkins, Troy, $752; Clarence E. Walker, Troy, $798; F. H. Wells, Corfu, $816; Frederick D. Dutcher, Fulton, $844; S. Soaper & Sons, Seneca Falls, $887.

Broken Stone Contract No. 47, Wayne County, 12.49 miles, 605 tons: Richard Hopkins, Troy, $1479; Frederick D. Dutcher, Fulton, $1507; Clarence E. Walker, Troy, $1589; F. H. Wells, Corfu, $1633. Noted May 20.

✚Buffalo, N. Y.—The contract for paving East Bennett, West Bennett St. and Hazel Pl. with asphalt has been awarded to the HENRY P. BURGARD CO., at $22,240.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids were received June 1 by the Borough President for paving (a) Gouverneur Pl. from Park to Washington Ave., (b) Morris Ave. from 161st to 164th St., as follows: Municipal Asphalt Paving Co., (a) $9868; Uvalde Asphalt Paving Co., (a) $12,386, (b) $6402; Sicilian Asphalt Paving Co., (a) $12,018, (b) $536 Barber Asphalt Paving Co., (a) $12,310, (b) $6413; Asphalt Construction Co., (a) $10,859, (b) $5522. Noted May 27.

New York, N. Y.—(Borough of Queens)—(Official)—Bids were received June 2 by the Borough President for improving (a) 14th St. from Seventh to Eighth Ave. and Eighth Ave. from 13th to 14th St., (b) Harris Ave. from Crescent to Prospect St., (c) Ralph St. from the Brooklyn Borough line to Woodward Ave., (d) Steinway Ave. from Jackson to Washington Ave., as follows: Barber Asphalt Paving Co., (a) $5589, (c) $12,014, (d) $5381; Uvalde Asphalt Paving Co., (a) $5235, (c) $9518; Sicilian Asphalt Paving Co., (a) $4893, (c) $9674; Cleveland Trinidad Paving Co., (a) $5242; Borough Asphalt Paving Co., (a) $5612, (c) $11,052; C. A. Myers Contracting Co., (b) $5050; Clancy & Nunn, (b) $4941; Queens Plaza Contracting Co., (b) $4919; Peace Bros., (b) $5908; Franklin Contracting Co., (d) $5669; J. Leopold & Co., (d) $6386. Noted May 27.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until 11 a.m., June 16, by Maurice E. Connolly, Borough Pres., for improving Ithaca (Fourth) St. from Pettit Pl. to Britton Ave. and from Baxter to Britton Ave., Fourth Ave. from Jackson to Washington Ave., Custer (15th) St. from Bayreuth (Beach) St. to Sanford Ave., Britton Ave. from Broadway to Forley Ave., 12th Ave. from Grand to Jamaica Ave., Payntar Ave. from Sherman to Crescent St., Stephens St. from Wyckoff to Seneca Ave., and for paving Freeman Ave. from Crescent St. to Jackson Ave.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until noon, June 15, by Charles J. McCormack, Borough Pres., for grading Seaview Ave. and Maple Ave. from Fifth St. to Richmond Rd.

✚Rochester, N. Y.—The contract for paving Post Ave., Englewood Terrace and Linden St. with asphalt has been awarded to the ROCHESTER VULCANITE PAVEMENT CO., Rochester, at $35,801.

✚Rome, N. Y.—The contract for paving Lawrence St. with bitulithic has been awarded to WARREN BROS. CO., Boston, Mass., at $24,597.

✚St. Johnsville, N. Y.—The contract for paving Bridge St. has been awarded to JAMES E. MARTIN, Utica, at $9984.

Salamanca, N. Y.—Bids will be received about June 10 for constructing sidewalks, at an estimated cost of $15,000.

Troy, N. Y.—Bids were received for paving Fourth St. from Congress to Fulton St. and Hoosick St. from 10th to the old city line with (a) firebrick, (b) wood block, (c) lugwood block, (d) sheet asphalt, (e) granite block as follows: Hassam Paving Co., (a) $19,025, (b) $23,210, (c) $23,367, (e) $22,949; John M. Davitt, (a) $19,512, (b) $22,973, (c) $22,973, (d) $16,784, (e) $23,810; Martin Murray Construction Co., (b) $24,023, (e) $23,866. Noted May 27.

Hackensack, N. J.—Bonds for $90,000 have been sold, the proceeds of which will be used for improving the Paterson Plankroad in Bergen County.

Harrison, N. J.—Bids will soon be received by the Town Council for improving Davis Ave. and Middlesex St.

Jersey City, N. J.—Bids will be received until 2 p.m., June 17, by the City Commissioners for repairing Cooper Pl. from Newark Ave. to Gregory St. with asphalt paving blocks.

Jersey City, N. J.—Bids will soon be received for the improvement of Pavonia Ave. from Summit to Chestnut Ave. and Mercer St. from Summit Ave. to the viaduct.

Kenilworth, N. J.—The Borough Council will soon receive bids for 1000 tons or more of crushed stone to repair the Boulevard and other streets in the Borough.

Millburn, N. J.—Bids will soon be received for paving Prospect and Mountain Ave., Pine, Elm and Maple St. E. R. Halsey, 164 Market St., Newark, N. J., is Engr.

Newark, N. J.—Bids will be received until 3:30 p.m., June 14, by the Board of Chosen Freeholders of Essex County for laying a concrete roadway on Springfield Ave.

New Brunswick, N. J.—Bids will be received until 2:30 p.m., June 15, by the Commissioners of Middlesex County for improving St. George's Ave., at an estimated cost of $20,000. Noted Apr. 29.

✚Perth Amboy, N. J.—The contract for improving the Metuchen-Perth Amboy Rd. has been awarded to McGOVERN & SEIBOLT, at $42,383.

Trenton, N. J.—The Board of City Commissioners has rejected all bids received for the improvement of South Clinton Ave., Cooper, Fulton, Whittaker and Lamebrton St.

Beaver Falls, Penn.—At a recent election the question of issuing $100,000 in bonds, the proceeds of which was to have been used for paving was defeated.

✚Philadelphia, Penn.—The contract for repaving South St. from Second to 27th St. has been awarded to the McNICHOL PAVING & CONSTRUCTION CO., at $87,200.

✚Philadelphia, Penn.—The Board of Public Works has awarded the contract for paving Wayne Ave. and Chestnut St. to the McNICHOL PAVING & CONSTRUCTING CO., at $24,908.

✚Rouseville, Penn.—The contract for paving Main St. has been awarded to LESHER, ROESS & LESHER, Oil City, at $22,500.

Wilmington, Del.—Gen. T. Coleman du Pont is making praparations to have operations started upon the construction of 18 miles of his proposed $2,000,000 boulevard between Georgetown and Selbyville. The section to be built represents but little more than one-fifth of the entire project, but General du Pont announced that the work would be rushed through to completion just as rapidly as the right of way can be secured.

Rockville, Md.—Bids will be received until June 15 by the Commissioners of Montgomery County for constructing 1.38 miles of State-Aid road along Clarksburg Rd. between Burdette and Boyds.

Christiansburg, Va.—An election will be held July 6 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for improving roads in Christiansburg District, Montgomery County.

Adamston, W. Va.—An election will soon be held to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for paving Pike St.

Charleston, W. Va.—At a recent election the citizens voted to issue $750,000 in bonds, the proceeds of which will be used for the construction of roads.

Huntington, W. Va.—At a recent election the citizens voted in favor of issuing $600,000 in bonds, the proceeds of which will be used for paving roads. Noted Apr. 29.

✚Huntington, W. Va.—The contract for improving a number of streets has been awarded to JACK ULLOM. Noted May 13.

Parkersburg, W. Va.—An election will be held July 6 to vote on the question of issuing $47,500 in bonds, the proceeds of which will be used for improving roads in the Lubeck District. Noted May 27.

✚Pilotmountain, N. C.—A contract for improving a number of streets has been awarded to SMITH & SWINNEY.

Greenwood, S. C.—The city contemplates holding an election to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for improving streets.

Sumter, S. C.—Press reports state that the city will soon hold an election to vote on the question of issuing $250,000 in bonds, the proceeds of which will be used for paving streets.

Quitman, Ga.—The Commissioners of Brooks County postponed the bond election which was to have been held May 29. At this election the question of issuing $400,000 in bonds for constructing roads in Brooks County was to have been considered. Noted May 13.

Arcadia, Fla.—The city contemplates voting on bonds to improve various streets.

De Land, Fla.—Bids will be received until 2 p.m., June 30, by Samuel D. Jordon, Clk., for the construction of approximately 52 miles of roadway in the First and Second Districts. J. B. McCrary Co., 507 Atlanta National Bank Bldg., Atlanta, Ga., is Engr.

West Palm Beach, Fla.—At a recent election the citizens of Palm Beach County voted in favor of issuing $800,000 in bonds for constructing roads. Noted Mar. 25.

✚Alexandria, La.—The contract for paving Lee St. from Second St. to Bolton Ave. and Bolton Ave. from Gould Ave. to Lee St. has been awarded to A. R. YOUNG & CO., Lawrence, Kan., at $31,628 and $58,833, respectively. Noted May 13.

Campti, La.—At a recent election the citizens voted in favor of issuing $40,000 in bonds for road improvements.

Bastrop, La.—The citizens voted in favor of the question of issuing $55,000 in bonds. The proceeds will be used for the construction of a highway. Noted Apr. 22.

Fayetteville, Tenn.—Press reports state that the city contemplates an expenditure of $20,000 for improving streets.

Knoxville, Tenn.—According to press reports, bids will soon be received for paving Atkins, Anderson, Callaway, Cumberland and Highland Ave. J. B. McCalla is City Engr.

✚Jackson, Ky.—A contract for macadamizing a number of streets has been awarded to JOHN W. DEAN, at approximately $15,000.

Lexington, Ky.—The city will pave with asphalt South Broadway and Angliand St. from South Broadway to the Versailles Pike.

✚Louisville, Ky.—The contract for paving a portion of Franck Ave. has been awarded to the AMERICAN STANDARD ASPHALT CO., at $13,500.

Madisonville, Ky.—The Commissioners of Hopkins County have postponed the election which was to have been held May 8 when the question of issuing $300,000 in bonds for constructing roads in Hopkins County was to have been considered. Noted Mar. 18.

Monticello, Ky.—An election will be held July 24 to vote on the question of issuing $200,000 in bonds, the proceeds of which will be used for building 75 miles of road in Wayne County.

✚Barnesville, Ohio—The contract for grading, draining and paving South Gardiner St. has been awarded to SAMUEL FOWLER. Noted May 20.

✚Canton, Ohio—The contract for paving Tuscarawas St. has been awarded to the CLEVELAND TRINIDAD PAVING CO., Cleveland, at $68,428.

Cincinnati, Ohio—Bids were received May 13 for repaving Bloody Run Parkway as follows: Henkel & Sullivan, Cincinnati, $11,012; Kirchner Construction Co., Cincinnati, $11,478; Allan Kissinger, Cincinnati, $12,673.

Columbus, Ohio—The City Council has adopted a resolution providing for the improvement of Bryden Alley from 19th to 27th St.

✚Elyria, Ohio—The contract for paving East Bridge St. has been awarded to GEORGE ROSS, at $24,161.

Lakewood, Ohio—(Official)—Bids will be received until June 14 by N. C. Cotabish, Dir. of Pub. Ser., for paving Clifton, Forest and West Forest Roads with asphalt and Hathowo Ave. and Park Row with brick, sheet asphalt or bituminous macadam. E. A. Fisher is City Engr.

✚Mt. Gilead, Ohio—(Official)—The contract for constructing 3½ miles of road, known as the Marengo Rd. No. 2 has been awarded to HARVEY TENNANT, Galion, at $19,977. Noted May 6.

★**New Boston, Ohio**—(Official)—Bids will be received until noon, June 16, by the Village Council for constructing 60,138 sq.yd. of pavement and 35,090 lin.ft. of combined concrete curb and gutter.

Rocky River, Ohio—Bids will be received until noon, June 22, by Frank Mitchell, Clk., for the construction of concrete sidewalks on the North Ridge Rd. Noted May 20.

✚**New Albany, Ind.**—The contract for constructing the St. Joseph Rd. in New Albany Township, Floyd County, has been awarded to W. F. WOODRUFF, at $14,000.

✚**Syracuse, Ind.**—The contract for paving Main and Huntington St. has been awarded to the NORTHERN CONSTRUCTION CO., Elkhart.

✚**Terre Haute, Ind.**—The Commissioners of Vigo County have awarded contracts for constructing the Tritt Rd. to the ILLINOIS CONSTRUCTION CO., Gary, at $5538, and the Thompson Rd. to HOWARD LEACH, Riley, at $9943.

✚**Vincennes, Ind.**—The contract for paving First St. with aspsalt has been awarded to the WESTERN CONSTRUCTION CO., at $25,186.

✚**Bessemer, Mich.**—The contract for constructing 3.52 miles of county road has been awarded by the Commissioners of Gogebic County to A. MATTSON, Ironwood.

Cadillac, Mich.—(Official)—Bids will soon be received by the Board of Trade for the construction of 2½ miles of 16 ft. concrete roadway for a boulevard drive in territory adjacent to the city. D. E. Carr is Gen. Mgr.

Houghton, Mich.—The City Council contemplates paving Front and Reservation St.

✚**Saginaw, Mich.**—Contracts have been awarded for street paving as follows: to S. S. SAXTON, at $60,000, for asphalt; to D. LA CONDE, at $7000, for brick, and to the JOHNSON CONSTRUCTION CO., at $35,000, for wood block.

✚**Aurora, Ill.**—The contract for paving Broadway, Fox and New York St. has been awarded to the McCARTHY IMPROVEMENT CO., Davenport, Iowa, at $18,759.

✚**Evanston, Ill.**—The contract for paving West Railroad Ave. has been awarded to the M. FOLEY CO., at $19,876.

✚**Edgerton, Wis.**—The contract for reinforced-concrete pavement on Main St., from Fulton to Lawton St., has been awarded to LEHMANN BROS., Watertown, Wis., at $3187.

Elroy, Wis.—Bids will be received until June 21 by William Flood, City Clk., for constructing macadam pavement, concrete curb and gutters on Second and Main St.

Green Bay, Wis.—Bids will be received until 10 a.m., June 28, by the Committee on Streets and Bridges for improving various streets.

✚**La Crosse, Wis.**—A contract for constructing asphaltic concrete pavement has been awarded to the LA CROSSE STONE CO., 28th and Main St., La Crosse.

✚**Madison, Wis.**—The contract for paving Adams and Winnebago St. with asphaltic concrete has been awarded to the JOHNSON CONSTRUCTION CO., at $12,230. Noted May 13.

Merrill, Wis.—Bids will be received until 4 p.m., June 29, by the Board of Public Works for paving portions of Main and West Main St. with vitrified brick on concrete base.

River Falls, Wis.—Bids will be received until 2 p.m., June 11, by P. L. Moe, Chn. of St. Comn., for constructing concrete pavements on Main, Polk, Pierce and Tenth St.

Two Rivers, Wis.—Bids will be received until 7:30 p.m., June 12, by the Board of Public Works for grading, curbing and macadamizing portions of various streets.

✚**Corydon, Iowa**—The contract for paving West, Anthony and State St. with bitulithic has been awarded to JAMES HORRABIN & CO., Des Moines, at $64,000.

✚**Dubuque, Iowa**—The contract for paving Delhi and Julien St. with brick has been awarded to the WESTERN IMPROVEMENT CO., Racine, Wis.

✚**Grinnell, Iowa**—(Official)—The contract for the construction of 83,350 sq.yd. of paving, 64,770 lin.ft. of curb and gutter, 11,300 cu.yd. of grading and 29,000 lb. of castings has been awarded to WILLIAM HORRABIN, Iowa City, at $213,631. Noted Apr. 29.

Marshalltown, Iowa—Bids will be received until June 15 by J. J. Wilson, City Clk., for laying concrete pavements.

✚**Rockwell City, Iowa**—A contract for constructing 80,000 sq.yd. of asphalt pavement and 46,000 ft. of curbing has been awarded to the FORD PAVING CO., Cedar Rapids.

Spencer, Iowa—Bids will be received about July 24 by the city for laying 50,000 sq.yd. of brick block, sheet asphalt, creosoted wood block or reinforced-concrete pavement. E. O'Keefe is City Engr.

✚**West Liberty, Iowa**—A contract for paving a number of streets has been awarded to the McNAMARA CONSTRUCTION CO., Dubuque, at approximately $100,000.

✚**Bemidji, Minn.**—(Official)—The contract for the construction of State Rural Highway No. 62 has been awarded to P. McDONNELL, Duluth.

✚**Minneapolis, Minn.**—The contract for paving Williamson St. with brick has been awarded to JOHN F. ICKE, at $11,984.

✚**St. Paul, Minn.**—A contract for resurfacing with concrete the speedway which is being constructed by the Twin City Motor Speedway Association has been awarded to HANLON & OAKES, Minneapolis, at $181,000.

Glasco, Kan.—Bids will be received until 10 a.m., June 15, by the City Clerk for the construction of concrete pavement and curb and gutter on Main St.

✚**Kansas City, Kan.**—The contract for constructing the Bartles macadam road has been awarded to A. J. ARMSTRONG at $5285.

✚**Osawatomie, Kan.**—The contract for improving Pacific Ave. has been awarded to A. B. FERGUSON, at $18,963.

✚**Ralston, Neb.**—A contract for constructing concrete sidewalks has been awarded to E. HARRIS.

✚**University Place, Neb.**—A contract for constructing asphaltic concrete pavement on 19th St. has been awarded to ABEL & ROBERTS, Lincoln, at $12,473.

✚**Anaconda, Mont.**—The contract for Paving Park Ave. and Main St. with asphaltic concrete has been awarded to CLIFTON & APPLEGATE CO., at $7650. Noted May 13.

Dillon, Mont.—The City Council has voted to construct concrete sidewalks on South Pacific St., at an estimated cost of $12,000.

Lebanon, Mo.—Bids will be received until 8 p.m., June 14, by the City Clerk for constructing macadam and concrete pavements and curbs in various streets.

Anderson, Tex.—An election will be held June 15 to vote on the question of issuing $150,000 in bonds, the proceeds of which will be used for constructing roads in District No. 6, Grimes County.

Beaumont, Tex.—At a recent election the citizens voted in favor of issuing $85,000 in bonds, the proceeds of which will be used for paving streets. Noted Apr. 22.

Ennis, Tex.—At a recent election the citizens voted to issue $45,000 in bonds, the proceeds of which will be used for the construction of roads.

Junction, Tex.—Bids will be received until June 14 by the Commissioners of Kimble County for grading and graveling seven miles of streets in Junction.

Sandpoint, Idaho—Bids will be received until June 15 by the City Council for paving 19,917 yd. with hassam, asphalt, brick or wood block. The estimated cost of the work is $74,928.

Ogden, Utah—Bids will be received until June 21 by the City Commission for paving Madison Ave. from 25th to 28th St. with asphalt.

Camas, Wash.—Plans have been prepared for paving Oneonta St. with macadam or other hard surfacing, at an estimated cost of $10,000.

✚**Dayton, Wash.**—The contract for constructing the Johnson Hollow Rd. has been awarded to the CASCADE CONSTRUCTION CO., at $13,940.

Elma, Wash.—Bids will be received until 1:30 p.m., June 14, by C. H. Palmer, Town Clk., for paving Main, Third and Young St. with sheet asphalt, asphaltic concrete and bitulithic, all on concrete base.

✚**Kelso, Wash.**—The Board of Commissioners of Cowlitz County has awarded contracts for road work to U. D. WILLIS, at $10,490, for grading and rock surfacing of one mile of the Pacific Highway near Kelso, and to JEFFREY & BUFTON, at $10,440, for constructing 6869 ft. of concrete roadway near Woodland.

✚**Montesano, Wash.**—The contract for constructing Permanent Highway No. 8 has been awarded to the BURNETT CONSTRUCTION CO., Burke Bldg., Seattle, at $9895. Other bids were: August Wallin, Aberdeen, $10,490; M. D. Hogan, Hoquiam, $10,722; Alfred & James, Centralia, $13,000.

Mt. Vernon, Wash.—Bids will soon be received for paving Second St. from Sixth to Cleveland St. E. Crookston is City Clk.

✚**Olympia, Wash.**—The Washington Highway Commission has awarded contracts for road construction as follows: Sunset Highway, Rocklyn to Creston, 13½ miles, to the MOHR CONSTRUCTION CO., Waterville, Wash., at $41,479; Inland Empire Highway, Colfax south, five miles, to the H. L. WILSON CO., Walla Walla, Wash., at $19,229, and Inland Empire Highway, Steptoe to Cashup, four miles, to the GENERAL CONSTRUCTION CO., Spokane, Wash., at $11,955. Noted June 3.

✚**Seattle, Wash.**—The contract for paving Ninth Ave., W., has been awarded to the P. J. McHUGH PAVING & CONSTRUCTION CO., at $19,360.

Seattle, Wash.—Bids will be received until 10 a.m., June 21, by the Commissioners of King County for constructing the Woodinville-Duvall Rd.

✚**Seattle, Wash.**—The contract for the construction of Permanent Highway No. 15 has been awarded to J. T. MILLS, Olympia, $28,539. Other bids were: Burnett Construction Co., Coleman Bldg., Seattle, $33,511; M. P. Zimdorf, Seattle, $34,437; Hans Pederson, Madison Blk., Seattle, $29,589; Bancroft & Morgan, Everett, $28,589; L. H. Covig, Seattle, $29,827; Sloan Bros., Greenwood Ave., Seattle, $29,005; Russell & Gallagher, Ry. Exchange Bldg., Seattle, $36,915; Ferch & Gass, White Bldg., Seattle, $37,272.

✚**Spokane, Wash.**—The Board of Commissioners of Spokane County has awarded a contract for the construction of 11.5 miles of permanent highway between Rockford and Waverly, to the AMBROSE-BIRDSALL CO., Portland, Ore., at $165,500. Noted May 6.

Vashon, Wash.—(Official)—The contract will soon be awarded for the construction of a six-mile highway, estimated to cost $50,000.

Sacramento, Calif.—(Official)—Bids were received May 24 by the State Highway Commission for constructing roads in various counties as follows: (a) Tehama County, Section C, Route 3; (b) Tehama County, Section B, Route 3; (c) Los Angeles County, Section A, Route 4; (d) Kings County, Section A, Route 6: Eaton & Smith, San Francisco, (a) $54,988; G. W. Conners, Eureka, (a) $57,950, (b) $57,873; W. B. Hunt & Sons, Alameda, (a) $59,324; Twohy Bros. Co., San Francisco, (a) $70,253, (b) $47,198; Richard Rothwell, Los Angeles, (a) $68,498; F. Rolandi, Los Angeles, (a) $66,169; Toohey & Johnson, Phoenix, (a) $63,772; Bates, Borland & Ayer, Oakland, (a) $69,283, (b) $49,795; Hoffman & McLaren, Oakland, (a) $51,733, (b) $43,657; H. H. Harlan & T. W. Harlan, Williams, (a) $49,991; L. F. Gerdetz, San Francisco, (a) $56,873, (b) $46,040; James Fitzpatrick, Sacramento, (a) $50,206, (b) $45,914; Commary Peterson Co., San Francisco, (a) $72,065, (b) $44,662; George Anselmo, (b) $52,851; Manuel Jacinto, Sacramento, (b) $51,482; C. H. & A. W. Borrill, San Francisco, (b) $46,390; Leigh Garnsey, Los Angeles, (c) $27,957; George Wiegand, Lamanda Park, (c) $24,280; Homer R. Kennedy & Frank Williams, Los Angeles, (c) $21,101; White & Gaskill, Long Beach,

(c) $26,643; John D. Marsh, Bakersfield, (c) $25,552; W. A. Dontanville, Paso Robles, (c) $23,918, (d) $54,954; Bent Bros., Los Angeles, (d) $69,555; Taylor & Berliner, Los Angeles, (d) $56,809; George S. Benson & Sons, (d) $50,212; John D. Marsh, Bakersfield, (d) $51,697.

✚San Jose, Calif.—Contracts for street paving have been awarded to the RAISCH IMPROVEMENT CO., San Francisco, at $35,100, CLARK & HENERY, Stockton, $10,445 and to F. R. RITCHIE & SON, San Jose, $7286.

Willits, Calif.—The Board of Trustees has authorized the paving of Valley and Humboldt St.

✚Moncton, N. B.—A contract for laying tarvia pavement has been awarded to CARRITTE & PATERSON, St. John, N. B., at an estimated cost of $28,000.

✚Montreal, Que.—The contract for supplying asphalt required for paving city streets for one year has been awarded to the AZTEC OIL & REFINING CO., at $15.50 per ton. The Board of Control recommends the extension of the contract for nine years on condition that the company shall construct a refinery in Montreal.

✚St. Lamberts, Que.—A contract for paving a number of streets has been awarded to EDWARD BELANGE & CO., 2820 St. Hubert St., Montreal.

✚Westmount, Que.—A contract for constructing asphalt pavements has been awarded to the WARNER-QUINLAN ASPHALT CO., 745 St. Catherine St., W., Montreal.

Aurora, Ont.—The Town Council plans to improve Wellington St. by laying a new roadway, at an estimated cost of $10,000.

Brussels, Ont.—Bids will be received until June 15 by F. S. Scott, Clk., for curbing and paving Main St.

Ft. Erie, Ont.—Press reports state that approximately $12,500 will be spent for road improvements.

Ingersoll, Ont.—Plans are being prepared for the construction of brick pavement on concrete foundation on Thames St. W. R. Smith is Clk.

Niagara Falls, Ont.—Bids will soon be received by the city for the construction of brick paving on Queen St. The estimated cost is $16,000. F. J. Anderson is Engr.

✚Ottawa, Ont.—The contract for paving Wellington St. from Preston St. to the viaduct has been awarded to the UNION CONSTRUCTION CO., at $6000.

Peterboro, Ont.—The City Council contemplates constructing sidewalks on various streets. S. R. Armstrong is Clk.

Virden, Man.—Bids will be received until 6 p.m., June 15, by W. Whiteford for grading approximately 71 miles of the Provincial highways and roads.

INDUSTRIAL WORKS

Boston, Mass.—The Zunner Machine Co., Rochester, N. Y., will build a plant in South Boston. C. Granger, 203 Winthrop Bldg., is in charge.

Providence, R. I.—The Terminal Warehouse Co. plans the construction of a five-story, 100x100-ft. brick warehouse.

✚Bridgeport, Conn.—The Locomobile Co. of America has awarded the contract for the construction of an addition to its plant to the FLYNT BUILDING & CONSTRUCTION CO., Palmer, Mass., at about $34,000. Lockwood, Greene & Co., 60 Federal St., Boston, Mass., is Arch. Noted May 20.

Hartford, Conn.—(Official)—Bids will be received until noon, June 15, by Greenwood & Moer, Engr., 847 Main St., for the construction of a three-story, 42x110-ft. brick factory, mill construction, at Rowe Ave. and Park St., for the Jacobs Mfg. Co. Noted June 3.

Amsterdam, N. Y.—Bids have been received for the construction of a two-story, 70x80-ft. addition to the machine shop of the Inman Mfg. Co. R. A. Wood is Gen. Mgr.

Buffalo, N. Y.—The Buffalo Copper & Brass Rolling Mill, 446 Military Rd., has a 220x1200-ft. site at Military Rd. and the New York Central R.R., on which it will build extensive additions.

Buffalo, N. Y.—The Automobile Aviation Co., recently incorporated, is having plans prepared for the construction of a factory. H. F. Hanford, 322 Pennsylvania St., is Secy.

✚Buffalo, N. Y.—The Schoellkopf, Hartford & Hanna Co. has awarded the general contract to the JOHN W. COWPER CO., for the construction of a three-story, 75x175-ft. brick and steel addition to its plant at Abbott Rd. and the Lake Shore R.R. The structural steel contract has been awarded to the FERGUSON STEEL & IRON CO. Noted Apr. 29.

✚Buffalo, N. Y.—The American Radiator Co. has awarded the contract to F. S. MATTHEWSON, 702 White Bldg., for the construction of a one-story, 222x234-ft. foundry at Elmwood Ave. and the New York Central R.R. John E. Youngberg, 30 North Dearborn St., Chicago, Ill., is Arch.

✚Depew, N. Y.—The Gould Storage Battery Co. has awarded the general contract to the JOHN W. COWPER CO., Buffalo, N. Y., for the construction of a two-story, 75x200-ft. factory, to cost $40,000. The FERGUSON STEEL & IRON CO., Buffalo, N. Y., has been awarded the structural steel contract.

✚New York, N. Y.—(Borough of Bronx)—The Ames Transfer Co. has awarded the contract to the JOHN J. HEARN CONSTRUCTION CO., 69 West 46th St., for the construction of a six-story garage and storage building at Kingsbridge Ave. and West 236th St. It will cost about $75,000. John C. Kleinhouse, 1839 East 12th St. (Borough of Brooklyn), is Arch. Noted May 20.

New York, N. Y.—(Borough of Brooklyn)—The Cadillac Motor Co., 1819 Broadway (Borough of Manhattan), will build a four-story, 60x100-ft. reinforced-concrete service building at Lafayette Ave. and Rockwell Pl. It will cost $80,000. William E. Lehman, 738 Broad St., Newark, N. J., is Arch.

New York, N. Y.—(Borough of Brooklyn)—The R. H. Comey Co., 78 18th St., will build three three-story factories at 18th St. and Third Ave. William Higginson, 13 Park Row (Borough of Manhattan), is Arch.

New York, N. Y.—(Borough of Brooklyn)—The F. & M. Brewing Co., Park Ave. and 51st St. (Borough of Manhattan), will build a brewing plant on the plot bounded by Ninth and Tenth St., Kent Ave., and the East River.

New York, N. Y.—(Borough of Brooklyn)—Jason S. Bailey, West Roxbury, Boston, Mass., will build a seven-story, 60x125x200-ft. concrete factory on Bond St., at an estimated cost of $225,000. Barfitt Bros., 26 Court St., is Arch.

New York, N. Y.—(Borough of Manhattan)—The Interboro Long Distance Moving Co., 2157 Amsterdam Ave., will build a nine-story warehouse on Jumel Pl.

✚Rensselaer, N. Y.—William Barnet & Sons has awarded the contract for the construction of a three-story, 60x351-ft. reinforced-concrete mill to MORRIS KANTROWITZ, Albany, N. Y. The estimated cost is $75,000. Noted Mar. 25 and Apr. 8.

Yardville, N. J.—The Chandler Oilcloth Co. will rebuild its plant which was recently destroyed by fire at a loss of $40,000.

✚Glenolden, Penn.—(Official)—The H. K. Mulford Co. has awarded the contract for the construction of a four-story brick and concrete addition to its plant to THOMAS J. SEEDS, JR., 1207 Race St., Philadelphia, Penn. Noted May 27.

Marcus Hook, Penn.—Bids are being received for the construction of 9 one- and three-story brick factories for the United Roofing Co.

Newton Hamilton, Penn.—The Aetna Explosives Co., 2 Rector St., New York, N. Y., will build a plant estimated to cost $500,000.

Philadelphia, Penn.—Plans are being prepared by the William Steele & Sons Co., 1600 Arch St., for the construction of a three-story, 65x75-ft. garage at 21st and Brandywine St., for J. D. Darlington & Co.

Philadelphia, Penn.—David Berg will build a $100,000 distillery at Delaware Ave. and Mifflin St.

✚Pittsburgh, Penn.—The Logan-Gregg Hardware Co. has awarded the contract for the construction of an eight-story, 91x116-ft. warehouse to JAMES WHERRY & CO. The estimated cost is $125,000. Charles Bickel, May Bldg., is Arch. Noted Feb. 4 and 18.

✚Sayre, Penn.—The Lehigh Valley R.R. has awarded the contract for the construction of a round-house with 50 stalls to the WESTINGHOUSE-KERR CO., 37 Wall St., New York, N. Y. The estimated cost is $400,000.

Baltimore, Md.—Frensdorf & Brown has purchased Colgate Park, in which it will build a $50,000 dsitillery.

Tampa, Fla.—Armour & Co., Union Stock Yards, Chicago, Ill., will build additions to its warehouse to cost about $11,500. R. C. Clark is Arch.

✚Birmingham, Ala.—The HENDON-HETTRICK ENGINEERING CO. has been awarded the contract for the construction of a five-story, 68x120-ft. reinforced-concrete cold-storage plant at 22nd St. and Ave. E., for the Birmingham Ice Co. It will cost about $75,000. Noted Apr. 29.

Piedmont, Ala.—The Coosa Mfg. Co. plans the construction of a 106x118-ft. addition to its plant.

New Orleans, La.—(Official)—The Port Commissioner has commissioned Ford, Bacon & Davis, Engr., to prepare plans for the construction of a $750,000 grain elevator.

Nashville, Tenn.—The Bradford Wholesale Furniture Co., 168 Third Ave., N., will build a storehouse on Fifth Ave. and Commerce St.

✚Cincinnati, Ohio—Harry Hake, Arch., 802 Provident Bank Bldg., has awarded the contracts for the construction of a $40,000 addition to the Standard Marble Works to the MASSILLION BRIDGE & STEEL CO., for steel; carpentry, to D. MEINKEN.

Cleveland, Ohio—Richman Bros. Co., West Ninth St., will build a four-story, 200x322-ft. reinforced-concrete and brick factory, at an estimated cost of $200,000. Christian, Schwarzenberg & Galde, 1900 Euclid Bldg., is Arch.

St. Bernard, Ohio—(Cincinnati post office)—The Stacey Bros. Gas Construction Co. will build a 100x400-ft. factory, to cost about $120,000. Harry Hake, Provident Bank Bldg., is Arch.

✚Youngstown, Ohio—The Youngstown Iron & Steel Co. has awarded the contract to the HUNTER CONSTRUCTION CO. for the construction of a 55x450-ft. steel storage building.

Ligonier, Ind.—The Banta-Bender Mfg. Co. will build a plant to replace the one destroyed by fire.

✚Mishawaka, Ind.—The Mishawaka Woolen Co. has awarded the contract for the construction of a three- and four-story plant on Water St. to the H. G. CHRISTMAN CO., South Bend, Ind.

✚Terre Haute, Ind.—George Buntin and Charles Minshall have awarded the contract for the construction of a three-story, 65x170-ft. brick warehouse to RHOEM BROS. Johnson & Miller is Arch.

Detroit, Mich.—The Timken-Detroit Axle Co., 132 Clark Ave., will build a 500x1000-ft. addition to its plant, to cost $300,000.

✚Saginaw, Mich.—The Carlisle Tannery Co. has awarded the contract to A. GELINEAS & SONS for the construction of a 50x50-ft. and a 40x130-ft. addition to its plant in the North End.

Chicago, Ill.—F. W. Reis will build a two-story, 100x110-ft. brick garage at 2942 West North Ave., to cost $16,000. A. A. Anderson is Arch.

Chicago, Ill.—The Packard Motor Car Co., 2357 Michigan Ave., has purchased the site at 2340 Indiana Ave., and will build a five-story, reinforced-concrete service station, to cost about $125,000.

Milwaukee, Wis.—The John Pritzloff Hardware Co. will build a 75x160-ft. warehouse at 31 West Water St., to cost approximately $100,000.

Racine, Wis.—The Hamilton-Beach Mfg. Co. will build a three-story, 50x250-ft. brick factory, mill construction, to cost $30,000. Edmund B. Funston is Arch.

Mason City, Iowa—E. R. Gibson plans the construction of a $25,000 warehouse on First St.

Duluth, Minn.—The John Wahl Candy Co. has secured a permit for the construction of a factory at 26th and Michigan Ave., to cost $30,000.

✚Duluth, Minn.—W. J. ZITTERELL, Webster City, Iowa, has been awarded the contract for the construction of a $200,000 warehouse on Lake Ave. for the Gowan-Lenning-Brown Co. F. G. German is Arch. Noted Apr. 29.

St. Paul, Minn.—Maendler Bros., 42 East Third St., will build a four-story, 150x208-ft. factory at Ninth and Jackson St. P. Maendler is Pres.

✚Atchison, Kan.—The LEHRECK ENGINEERING & CONTRACTING CO., Kansas City, Mo., has been awarded the contract for the construction of a reinforced-concrete grain elevator on Main St. for the Blair Milling Co. The estimated cost is $50,000.

Kansas City, Mo.—Bids will soon be received at the main office of the Ford Motor Co., Detroit, Mich., for the construction of a three-story brick, terra cotta and reinforced-concrete addition to its plant at 11th St. and Winchester Ave., to cost $350,000. Albert Kahn, 58 Lafayette Bldg., Detroit, Mich., is Arch.

✚Dallas, Tex.—EUBANK & DIBRELL, Galveston, Tex., has been awarded the contract for the construction of a $100,000 cotton concentration shed at 46th St. and Ave. F., for the Southern Products Co.

Pueblo, Colo.—The F. J. Burch Mfg. Co. will build a two-story, 85x120-ft. brick factory at First and Santa Fe Ave., to cost about $25,000. J. M. Gile is Arch.

Leavenworth, Wash.—The Cashmere Fruit Growers' Union will build a $30,000 warehouse.

Linnton, Ore.—The Shell Oil Co. of California, according to press reports, will expend about $500,000 in constructing warehouses, tanks, docks and reservoirs. Reitz & Storey, Engr., Northern Bank & Trust Co., Seattle, Wash., will prepare the plans.

✚Portland, Ore.—Root & Kerr, Arch., has awarded the contracts for the construction of a three-story brick warehouse at 15th and Irving St. for the D. P. Thompson Estate, as follows: General, J. G. KILGREEN; plumbing, H. E. RADEMACHER; heating, KENDALL HEATING CO. The estimated cost is $35,000. Noted May 20.

✚Portland, Ore.—Whitehouse & Fouilhoux, Arch. has awarded the contracts for the construction of a warehouse at Oregon and Occident St. for the Settler Box Co., as follows: General, LITHERLAND & ABREY; plumbing, STURGES & STURGES; heating, KENDALL HEATING CO. The estimated cost is $45,000.

Portland, Ore.—Bids have been received by Doyle & Patterson, Arch., for the construction of a three-story, 100x150-ft. warehouse at 15th and Overton St. for the Mason Ehrman Co. The cost is estimated at $35,000. Noted May 27.

Agnew, Calif.—The Pacific Chemical Co., San Francisco, Calif., plans the construction of a $100,000 plant. Archibald Barnard, 625 Market St., San Francisco, Calif., is Pres.

Filmore, Calif.—The Montebello Oil Co. will construct an oil refinery at Filmore, at an estimated cost of $100,000.

San Francisco, Calif.—The Shell Oil Co. will build a pumping station and service building on Army St., at an estimated cost of $25,000.

San Francisco, Calif.—The Promotion Wine Co., 537 Front St., will build a $60,000 winery at Columbia Ave. and Lombard St. Edward Cerruti, 699 61st St., Oakland, Calif, is Pres.

Selma, Calif.—Libby, McNeill & Libby, Chicago, Ill., plans to build an addition to its canning plant, to cost $15,000.

FEDERAL GOVERNMENT WORK

Building—Portland, Maine—Bids for the construction of steerage barracks at the U. S. Quarantine Station, Portland, have been rejected by the Supervising Architect, Treasury Dept., Washington, D. C. Noted Mar. 25 and Apr. 29.

✚Post Office and Court House—Brattleboro, Vt.—The contract for constructing a post office and court house has been awarded to the E. T. ABBOTT CONSTRUCTION CO., New York, N. Y., at $101,773. Noted Feb. 11 and Mar. 25.

Dredging—Boston, Mass.—Bids will be received until noon, June 21, at the U. S. Engineer Office, Boston, for dredging in Chelsea Creek and in Boston harbor.

Plumbing—New York, N. Y.—Bids were received June 2 by the Acting Supervising Architect, Treasury Dept., Washington, D. C., for the installation of new plumbing in the New York court house and post office as follows: G. A. Kees Domestic Engineering Co., St. Paul, Minn., $39,945; C. F. Mentzinger's Sons Co., Brooklyn, N. Y., $32,119; James Harley Plumbing Co., Brooklyn, N. Y., $33,979; Charles Meads & Co., New York, N. Y., $31,800; Lassette & Murphy, New York, $42,-935; Christopher Nally, New York, $36,852; Noland Clifford Co., Newport News, Va., $35,786; John J. Kenney Co., New York, $31,700; Pullman Bros., Philadelphia, Penn., $43,997; W. C. Cornell Co., New York, $38,193. Noted May 13.

Building—Washington, D. C.—Plans have been prepared for the construction of a new chemical laboratory on Pierce Mill Rd., near Connecticut Ave., Washington, for the Bureau of Standards. The estimated cost is $200,000.

Inspecting Steel—Washington, D. C.—Bids will be received until 3 p.m., June 24, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, for the inspection of structural steel and iron work for buildings erected under the control of the U. S. Treasury.

★Laying Granite Block—Washington, D. C.—Bids will be received until 2 p.m., June 22, by the Commissioners of the District of Columbia for laying about 7700 sq.yd. of granite block.

★Grading and Improving—Washington, D. C.—Bids will be received until 2 p.m., June 22, by the Commissioners of the District of Columbia, for grading and improving various streets.

Ordnance—Washington, D. C.—Bids were received by the Bureau of Ordnance, Navy Dept., Washington, D. C., for furnishing finished guns and gun forgings for the Navy as follows: Item (1), 20 5-in. 51-calibre Mark 8 guns, with breech mechanism; (2) 30 4-in. 50-calibre Mark 9, modification 2, guns, with breech mechanism; (3) 40 sets 50-in. gun forgings for Mark 8 gun, (a) nickel steel (b), gun steel: Bethlehem Steel Co., South Bethlehem, Penn., (1) $8450 each (2) $4200, (3a)$0.28 (3b) $0.24¼; Midvale Steel Co., Philadelphia, Penn. (1) $7675, (2) $5850 (3a) $0.241; (3b) $0.209; American & British Mfg. Co., Bridgeport, Conn. (1) $7800 (2) $4300; Erie Forge Co., Erie, Penn. (3a) first 20 sets, $0.23¾, second 10 sets, $0.25, third 10 sets, $0.26 (3b) $0.20, $0.22, $0.23; Crucible Steel Co., Pittsburgh, Penn., (3a) $0.239 (3b) $0.2065.

Water Meters—Washington, D. C.—Bids will be received until 2 p.m., June 14, by the Commissioners of the District of Columbia, for furnishing 7000 ⅝-in. water meters.

✚★Steel Lock Gates—Wheeling, W. Va.—Bids were received May 18 by Maj. T. H. Jackson, for furnishing and erecting steel lock gates for dams No. 12 and 20, Ohio River as follows: Union Foundry & Machine Co., Pittsburgh, Penn., $30,522, $30,748; C. A. Turner, Inc., Pittsburgh, Penn., $30,600, $30,800; Steacy-Schmidt Mfg. Co., York, Penn., $32,750, $33,100; INDEPENDENT BRIDGE CO., Pittsburgh, Penn., $24,980, $25,950 (awarded contract); Milwaukee Bridge Co., Milwaukee, Wis., $27,336, $26,982; Penn Bridge Co., Beaver Falls, Penn., $30,800, $30,800; Alliance Structural Co., Alliance, Ohio, $27,946, $28,890; American Bridge Co., Pittsburgh, Penn., $25,850, $26,880 and Lupfer & Remick, Buffalo, N. Y., $26,473, $26,393. Noted Apr. 29.

Wharf—Southport, N. C.—Bids will be received until 3 p.m., June 25, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for construction a wharf at the Cape Fear quarantine station near Southport.

Cement—Atlanta, Ga.—Bids will be received until 2 p.m., July 1, by F. H. Duehay, Supt. of Prisons U. S. Penitentiary, Atlanta, for furnishing 5000 bbl. of portland cement.

Post Office and Court House—Opelika, Ala.—Bids will be received until 3 p.m., July 14, by James A. Wetmore Act. Superv. Arch., Treasury Dept., Washington, D. C., for constructing complete the U. S. post office and court house at Opelika.

✚Building—New Orleans, La.—The contract has been awarded to L. F. ALEXANDER, Washington, D. C., at $6700, for constructing a one-story frame dwelling for the chief operators. Noted Mar. 4 and May 27.

Stone—New Orleans, La.—Bids will be received until 11 a.m., June 25, at the U. S. Engineer Office, Queen & Crescent Bldg., New Orleans, for furnishing 25,000 tons of stone.

Stone—Memphis, Tenn.—Bids will be received until noon, June 29, by Maj. E. M. Markham, U. S. Engineer Office, Memphis, for furnishing 16,000 cu.yd. of riprap stone.

Stone—Memphis, Tenn.—Bids will be received until 11 a.m., June 30, by Maj. E. M. Markham, U. S. Engineer Office, Memphis, for furnishing 20,000 tons of riprap stone.

✚★Cribwork—Harbor Beach, Mich.—The contract has been awarded to BURKE, SMITH & NELSON, Muskegon, at $64,-787, for constructing cribwork at the breakwater at Harbor Beach. Noted Apr. 29 and May 27.

✚★Lock Improvement—Sault Ste. Marie, Mich.—The contract has been awarded to OSCAR DANIELS CO., Unity Bldg., Chicago, Ill., at $1,010,480, by the government for lock improvement work at the Fourth Lock, Sault Ste. Marie. Noted Apr. 29 and June 3.

✚Reclamation—Saco, Mont.—The contract has been awarded for the construction of Nelson Reservoir South Canal, Milk River Project, Mont., to JAMES O'CONNOR, Dodson, Mont., at $15,615. The work involves about 25,000 cu.yd. of canal excavation and is located 10 miles from Saco. Noted Apr. 15 and May 27.

Post Office—Chillicothe, Mo.—Bids were received June 3, for the construction of a post office building at Chillicothe (a) $87,700 (b) $91,300; Charles W. Gindele Construction Co., Chicago, Ill., (a) $88,000, (b) $90,000; George A. Shaul, Seneca, Kan., (a) $91,877; George W. Stiles Construction Co., Chicago, Ill., (a) $92,755; Dieter & Wenzel Construction Co., Wichita, Kan. (a) $95,408; Hiram Lloyd Building & Construction Co., St. Louis (a) $95,979, (b) $98,979; Campbell Bldg. Co., Salt Lake City, Utah (a) $96,500 (b) $101,200; M. Yeager & Sons, Danville, Va. (a) $97,668, (b) $99,618; R. P. Farnsworth & Co., Owensboro, Ky. (a) $98,800, (b) $100,000; Thomas W. Cissel, Wooster, Ohio (a) $99,833, (b) $103,000; King Lumber Co., Charlottesville, Va. (a) $100,500, (b) $103,000; Heman Construction Co., St. Louis (a) $101,400; Frank H. Latimer & Son, Kansas City (a) $102,313; Frank J. Griffy & Co., Keokuk, Iowa (a) $102,565; Rogers & Kaiser, Chicago, Ill. (a) $102,967, (b) $107,431; Kreipke-Schafer Construction Co., El Reno, Okla. (a) $109,000 and J. P. Cullen Construction Co., Janesville, Wis. (a) $113,050. Noted Apr. 22.

✚Post Office—Bryan, Tex.—The contract for the construction of a post office at Bryan has been awarded to ALGERNON BRAIL, Montgomery, Ala., at $39,277. Noted Apr. 8 and May 20.

✚Building—Ft. Bliss, Tex.—The contract has been awarded for constructing a guard house and bakery to OTTO P. KROEGER, El Paso, at $15,796, guard house, and at $6367, for bakery. Noted Apr. 8.

Post Office—Longview, Tex.—Bids were received June 2, by the Acting Supervising Architect, Treasury Dept., Washington, D. C., for the construction of post office at Longview, (a) limestone, (b) sandstone as follows: Dieter & Wenzel Construction Co., Wichita, Kan., (a) $42,792; Kreipke-Schafer Construction Co., El Reno, Okla, (a) $39,950; Texas Construction Co., San Antonio, (a) $33,030, (b) $33,280; W. H. Fissell & Co., New York, N. Y., (a) $41,800, (b) $42,800; Algernon Blair, Montgomery, Ala., (a) $41,884, (b) $43,000; Colonial Construction & Supply Co., Charlottesville, Va., (a) $41,929, (b) $42,999; George A. Shaul, Seneca, Kan., (a) $38,-790; C. V. Beatty, East Liverpool, Ohio, (a) $41,900, (b) $42,600; Thomas W. Cissel, Wooster, Ohio, (a) $44,000, (b) $46,000; W. E. Taylor, Ennis, (a) $36,250, (b) $36,950; Richardson Engineering & Construction Co., Bainbridge, Ga., (a) $41,-470, (b) $42,470. Noted Apr. 29.

Hangars—San Antonio, Tex.—Bids will be received until June 20 by Capt. Charles S. Wallace, Office Ch. Signal Officer, War Dept., Washington, D. C., for constructing two hangars at San Antonio.

✚Post Office—Ardmore, Okla.—The contract for the construction of a post office at Ardmore has been awarded to GEORGE W. STILES CONSTRUCTION CO., Chicago, Ill., at $120,200. Noted Mar. 25 and May 6.

✚★Reclamation—Payson City, Utah—The contract has been awarded for the construction of Lateral 20, Division 8, Highline Unit, Strawberry Valley project, Utah to the HARRISON-KNUDSEN CO., Boise, Idaho, at $38,950. The work which is situated near Payson City involves the moving of about 30,000 cu.yd. of material and canal excavation and the placing of 3400 cu.yd. of reinforced concrete. Noted Apr. 22 and June 3.

✚Reclamation—Roosevelt, Ariz. — The contract has been awarded to the ROSEDALE FOUNDRY AND MACHINERY CO., Pittsburgh, Penn., for furnishing two needle valve outlets for Roosevelt Reservoir, Salt River project, Ariz., at $6420, f.o.b. Pittsburgh.

Boilers—Seattle, Wash.—Bids were received by the U. S. Quartermaster, Arcade Bldg., Seattle, for installing four scotch boilers in the army transport "Warren," as follows: Commercial Boiler Works, Seattle, $32,000, alternate bid on water-tube boilers $23,450; Bremerton Navy Yard, Bremerton, $33,985; Seattle Construction & Dry Dock Co., Seattle, $34,500, alternate bid $24,000.

Building—Clackamas, Ore.—Bids will be received until 2 p.m., June 28, by the Commissioner of Fisheries, Dept. of Commerce, Washington, D. C., for constructing a superintendent's residence at the fisheries station, Clackamas.

Subtreasury—San Francisco, Calif.—Bids will be received until 3 p.m., July 7, by James A. Wetmore, Acting Superv. Arch., Treasury Dept., Washington, D. C., for completing the second story of the U. S. Subtreasury, San Francisco.

Miscellaneous Supplies—Panama — Bids will be received until 10:30 a.m., June 12, by Maj. F. C. Boggs, Gen. Pur. Agt. Panama Canal, Washington, D. C., for furnishing miscellaneous supplies.

MISCELLANEOUS

Retaining Wall and Riprap—Chicopee, Mass.—The following are the bids received for constructing a retaining wall and furnishing riprap at Chicopee. The prices are per cu.yd. of concrete and per cu.yd. of stone: A. Williams & Co., Boston, $6.45; $1.60; Middlesex Contracting Co., Boston, $7.70; $2.40; Dennis I. Crowley, East Milton, $6.65; $2.60; George F. Dustin, Providence, R. I., $7.82; $4; C. M. Leach, Boston, $8.50; $4.45; Lawler Bros., Boston, $7.30; $2.75; Way & Cellili, Springfield, $5.85; $1.35; Rivers & Young Co., Holyoke, $6.88; $2.05; James L. Bryne, Boston, $7; $1.60; Cavanaugh Co., Boston, $7.38; $2.30; P. J. Kennedy & Co., Holyoke, $7.50; $2.80; Daniel O'Connell's Sons, Holyoke, $7.90; $2; George T. Rendle & Co., Boston, $7.90; $2.90; Northeastern Construction Co., Springfield, $7.30; $2.30.

Wall—Plymouth, Mass.—The following are the bids received for constructing a concrete wall at Warren's Cove: Concrete Construction Co., Boston, $5.70 per cu.yd.; Roy H. Fisher, Pepperell, $5.76; A. Williams & Co., Boston, $6; Susi & Williams, Boston, $6.10; Middlesex Contracting Co., Boston, $6.15; Arthur S. Huddell Co., Chelsea, $6.34; Dennis I. Crowley, East Milton, $6.35; R. L. Whipple & Co., Worcester, $6.50; James H. Connolly, Hyannis, $6.70; George F. Dustin, Providence, R. I., $6.72; Beaver Contracting & Engineering Corporation, Boston, $7.60; C. M. Leach, Boston, $8; Lawler Brown, Boston, $8.20; William A. Murtfeldt, Boston, $8.24.

Grandstand and Hall—Springfield, Mass.—Architects and engineers are invited to submit designs and plans to the Building Committee of the Eastern States Agricultural and Industrial Exposition, Inc., on or before July 1, for a combination grandstand and exhibition hall. The person or concern submitting the successful design will be awarded $1000.

Trestle—Worcester, Mass.—The People's Coal Co. plans to construct a trestle, about 400 ft., through its yard. John J. Mullan is Pres.

Buoys and Lighthouses—Albany, N. Y.—According to press reports, Gov. Whitman has signed a bill appropriating $195,000 to provide buoys and lighthouses on the completed portions of the Barge Canal.

Elimination of Grade Crossing—Bronxville, N. Y.—Governor Whitman has signed a bill appropriating $45,000 for eliminating the grade crossing at Bronxville. The plans call for an open-cut crossing under the tracks at a point near where the station now stands.

River Improvement—Hornell, N. Y.—According to press reports, Gov. Whitman had signed the Prangen Bill, which provides for an appropriation of $44,500 for the improvement of the Canisteo River between Hornell and Canisteo.

Lumber—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until noon, June 16, by R. A. C. Smith, Comr. of Docks, Battery Pl., for furnishing about 1,445,808 ft. b.m. of sawed new yellow pine lumber.

Motor Fire Apparatus—New York, N. Y.—(Borough of Manhattan)—Bids will be received by Robert Adamson, Fire Comr., Municipal Bldg., until June 14, for furnishing and applying 26 two-wheel gasoline-driven tractors, 16 to be used on fire engines and 10 on hook and ladder trucks.

Fire Hose—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by Robert Adamson, Fire Comr., Municipal Bldg., until June 16, for furnishing and delivering the following: 5000 ft. of 2½-in. and 5000 ft. of 3½-in. rubber water hose; 20,000 ft. 2½ and 10,000 ft. of 1½-in. cotton rubber-lined fire hose.

✚Lamp Posts—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for furnishing and delivering 1500 c.-l. lamp posts with steel shafts, has been awarded to the J. L. MOTT IRON WORKS, 118 Fifth Ave., New York. Noted June 3.

Laying Tracks and Repairing Pier—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until noon, June 16, by J. T. Fetherston, Comr., Dept. of Street Cleaning, Municipal Bldg., for laying tracks and contact rails on the pier at East 19th St., installing electrical work and repairing pier.

Removal of Street Encroachments—New York, N. Y.—(Borough of Manhattan)—(Official)—The following are the bids received by the Department of Education for the removal of street encroachments, etc., at Public School 86, Lexington Ave. and 96th St. (Borough of Manhattan): C. L. Dooley, 257 Adelphi St. (Borough of Brooklyn), $9669; W. D. Moore, $10,780; William H. Egan, $11,911; J. M. Knopp, $10,115; Louis Koenig, $11,547.

Pier—New York, N. Y.—(Borough of Brooklyn)—Bids will be received by R. A. C. Smith, Comr. of Docks, Battery Pl. (Borough of Manhattan) until noon, June 18 for building a new pier at the foot of 30th St. to be known as the 30th St. pier.

Flood Protection—Olean, N. Y.—A bill appropriating $150,000 for deepening Olean Creek and Allegheny River and constructing dikes along the sides of these streams, has been signed by Governor Whitman. The City of Olean will also raise $150,000 for this work.

✚Steel Cells—Hackensack, N. J.—The Board of Chosen Freeholders of Bergen County on June 1, awarded the contract to the JOHN T. BRADY CO., New York, for installing two tiers of steel cells in the three wings of the Bergen County jail, at $48,840.

Pier—Philadelphia, Penn.—The Department of Wharves, Docks and Ferries is having plans prepared for a double-deck reinforced-concrete pier, 250x900 ft., to be erected at the foot of McKean St.

✚Bulkhead—Philadelphia, Penn.—(Official)—The contract for the construction of a temporary bulkhead on the Schuylkill River has been awarded to CLOUD, STILES & WORK, Chester, Penn., at about $100,000. John Meigs is Dir. Dept. of Wharves, Docks and Ferries. Noted June 3.

Flood Protection—Pittsburgh, Penn.—The Committee on Finance of the City Council plans to issue $240,000 in bonds for raising the Penn. Ave. district above flood level.

✚Drainage—Wilmington, N. C.—The contract for constructing nine miles of ditches in New Hannibal County Drainage District No. 1 has been awarded to the SOUTHERN DREDGING & CONSTRUCTION CO., Kinston, N. C., at 23½c. per cu.yd. J. L. Becton, Wilmington, is Engr. Noted Feb. 11 and May 20.

Sea Wall—Key West, Fla.—According to press reports a bill has been prepared calling for a bond issue of $300,000 and is to be presented to the State Legislature. It is planned to build a breakwater and seawall extending from the foot of Duval St. to the head of the island.

Wharves and Terminals—Lakeland, Fla.—Herbert D. Mendenhall, of G. D. & H. D. Mendenhall, Consult. Engrs., Lakeland, has been retained to design and install the wharves and terminals of the Commodores Point Terminal Co. The improvements proposed include the construction of one mile of wharves on the St. John's River, dredging the river to 30 ft. and filling in an area of about 135 acres on which will be constructed terminals.

✚Drainage—Pinellas Park, Fla.—The contract has been awarded by the Pinellas Park Drainage District for the construction of a canal and drainage system to the FLORIDA DRAINAGE & CONSTRUCTION CO., Mulberry, Fla. The estimated cost is about $100,000.

Wharves—Cordova, Ala.—It is reported that the St. Louis & San Francisco R.R. Co. will spend $30,000 on the construction of wharves along the Warrior River at Cordova.

✚Drainage—Abbeville, La.—The contract for the construction of a system of drainage canals in Vermillion Parish has been awarded to CHARLES CLARK, Abbeville.

Levee—Baton Rouge, La.—R. B. Butler, Terrebonne, has presented a measure in the State Legislature providing authority to the Atchafalaya Basin Levee District to issue $500,000 bonds for the construction of a levee.

Dams—Natchitoches, La.—According to press reports the Police Jury has voted to construct two dams across Cane River.

✚Levee—New Orleans, La.—The State Board of Engineers has awarded the contract for the Lucy Levee, in St. John's Parish, to the LOUISIANA CONTRACTING CO., at 9.94c. per cu.yd. The levee will contain about 215,000 cu.yd.

Pavilion, Boat Landing, and Pilings—Cleveland, Ohio—Bids will be received by the Commissioner of Purchases and Supplies, Room 511, City Hall, until noon, June 17, for the construction of a pavilion and boat landing in Garfield Park; also for sinking piles at Edgewater Park.

✚Retaining Wall—Franklin, Ohio—The contract for the construction of a 700-ft. retaining wall for the protection of Miami Ave. has been awarded to JOHN K. SPENCER, at $18,025.

Piers—Evanston, Ill.—The city will soon vote on a $50,000 bond issue for the construction of piers.

Channel—Joliet, Ill.—A bill providing for the construction of a $5,000,000 waterway connecting the Chicago Drain Canal with the Illinois River, thus making a direct water route between the Great Lakes and the Gulf of Mexico, has been passed by the State Senate. It provides for the construction of an 8-ft. channel between Joliet and La Salle, connecting the head of navigation in the Illinois River with the Chicago Drain Canal.

Ditch—Marshall, Minn.—It is reported that bids will be received until June 14 by E. S. Shepard, County Audr., for constructing County Ditch No. 13. The cost is estimated at $21,928.

Dredging—St. Paul, Minn.—The Board of Directors, St. Paul Union Depot Co., has postponed action on the award of the contract for dredging the south bank of the Mississippi River between South Robert and Wisconsin St., until June 14. At that time it is hoped to have a $20,000,000 bond issue ready. Edmund Pennington is Pres. of Bd.

Terminal Improvements—Beaumont, Tex.—The citizens have voted in favor of the $100,000 bond issue for the proposed wharf, dock and terminal improvements.

Pipe Line—Ft. Worth, Tex.—The Pierce Oil Corporation plans to build an oil pipe line from the Oklahoma oil fields to Ft. Worth. It is reported that H. Clay Pierce, Pres. of the company, has contracted for a large supply of oil to be handled by the proposed pipe line.

Drainage—Mt. Pleasant, Tex.—(Official)—The Northeast Texas Engineering Co. has been commissioned to prepare plans for leveeing and draining several thousand acres of land on White Oak Creek in Titus County, Tex. W. A. Burton is Ch. Engr.

Wharves and Docks—Orange, Tex.—The City Commission will soon call an election to vote on an issue of $150,000 in bonds for building wharves and docks.

+Improving Grounds—Salt Lake City, Utah—The contract has been awarded to the UTAH CONSTRUCTION CO., Ogden, at about $50,000, for excavating and filling on Capitol grounds. Noted Apr. 15.

Drainage—Lovelock, Nev.—It is reported that the citizens of Lovelock Drainage District have voted to issue $43,000 in drainage bonds.

+Drainage—Bellingham, Wash.—The contract for digging the main ditch and three laterals for Drainage District No. 9 has been awarded to CHARLES E. LIND, Bellingham, at $10,544. Noted June 3.

Ditches, Drainage—Everett, Wash.—According to press reports bids will be received until June 14, by the County Commissioners, for constructing drainage ditches in Drainage District No. 4, between Snohomish and Monroe. Noted Apr. 15.

Sprinkler System—Seattle, Wash.—Bids will be received until 1:30 p.m., June 16, by C. E. Remsberg, Secy., Seattle Port Comn., Bell St. Warehouse, for installing a sprinkler system and other fire protection in the Fruit Storage Bldg., East Waterway Terminal. The cost is estimated at $16,000.

+Schooners—St. Helens, Ore.—The Charles R. McCormick Lumber Co. has awarded to the ST. HELENS SHIPBUILDING CO., St. Helens, the contract for the construction of two four-masted lumber schooners, each 265 ft. long.

Dock—St. Johns, Ore.—Permission has been granted to the Star Sand Co. by the City Council to construct a dock between Richmond and John St. It will be 360 ft. long and 150 ft. wide and will cost about $35,000.

Pier—Crockett, Calif.—The California & Hawaiian Sugar Refining Co. will construct a reinforced-concrete pier at a cost of about $10,000. George M. Rolph, 254 California St., San Francisco, Calif., is Gen. Mgr.

Dam—San Bernardino, Calif.—The Tri-Counties Restoration Committee has voted to construct a dam at the mouth of the cañon, above East Highland.

Dry Docks, Terminals, Etc.—St. Johns, N. B.—The Canadian Government has cancelled the contract of the Norton Griffiths Construction Co. for the construction of a dry dock, terminals and other improvements at the Courtenay Bay Harbor, St. John's. This is one of the largest contracts for public works now under construction, the amount involved being about $7,000,000. The work was to have been completed in two years. It has now been one year under way, but progress has been so slow that it is estimated that 10 years would have been required at the same rate to finish it.

Aërial Tramway—Niagara Falls, Ont.—The Niagara Spanish Aërial Co. will construct an aërial tramway over the Whirlpool at an estimated cost of $100,000. The work involves the stringing of six one-inch steel cables over the pool and the construction of concrete piers on either side. Gonzales Torres is Engr.

+Addition to Pier—White Rock, B. C.—The contract for building an addition to the pier has been awarded to the FRASER RIVER PILE DRIVING CO., Front St., New Westminster, at $10,500. Material used in the construction will be supplied by the Department of Public Works, Ottawa.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Bridgton, Maine—Bids will be received until noon, June 12 by the Superintendent of the School Commission, for constructing an addition to the main school. Harry S. Coombs, Lewiston, Maine, is Arch.

+Middlebury, Vt.—The Middlebury College has awarded the contract for the construction of a two- and five-story, brick and limestone dormitory and commons building to THOMAS W. ROGERS, Brandon, Vt. The estimated cost is $80,000. Rossiter & Muller, 15 West 38th St., New York, N. Y., is Arch.

+St. Johnsbury, Vt.—The contract for the construction of the Grace Methodist Church has been awarded to the CUMMINGS CONSTRUCTION CO., Ware, Mass., at $50,000.

Boston, Mass.—Alfred H. Howard will build an eight-story mercantile building at Harrison Ave. and Beach St., to cost $220,000.

Boston, Mass.—The Dawes Memorial Lodging House for men will be built on Oak St. at a cost of $100,000. Brown & Walcott, 19 South La Salle St., Chicago, Ill., is Arch. Noted May 20.

Boston, Mass.—J. A. Corbett,1710 Commonwealth Ave., will build a four-story, brick and stone block on Sutherland Rd., to cost $52,000. John C. Foley, 7 Berwick St., Somerville, Mass., is Arch.

Boston, Mass.—A five-story, 52x95-ft., brick and steel apartment house will be built at Audubon Rd. for the Audubon Trust Co. The estimated cost is $50,000. A. B. Beal, 43 Tremont St., is Mgr. Dykeman & Murray, 15 Exchange St., is Arch.

Boston, Mass.—Harry Sklava, 23 Hazelwood St., Malden, Mass., will build a three-story, brick and stone apartment house at 1725 Commonwealth Ave. It will cost $75,000. S. S. Levy, 35 Court St., is Arch.

+Boston, Mass.—The contract for the construction of a 50x90-ft., stone addition to St. John's Ecclesiastical Seminary, on Lake St., has been awarded to the CHARLES LOGUE BLDG. CO., 18 Tremont St. Maginnis & Walsh, 100 Bolyston St., is Arch. Rev. J. P. Peterson is in charge.

Chicopee, Mass.—St. Stanislaus Church plans the construction of a brick school, to cost about $60,000. Rev. Lawrence Cyman is Pastor.

Chicopee, Mass.—The contract for the construction of an addition to the high school has been awarded to J. J. PAGE & SON, at $55,740. Other bidders were: L. Carreau & Son, $57,947; Sarubbi Construction Co., $57,000; John J. Neil & Co., $57,740; Rivers & Young, $63,080 and Dowling & Bottomley, $59,975.

+Lawrence, Mass.—The contract for the construction of the Oliver central grammar school has been awarded to A. D. SCHUFELT & CO., at $209,707. Other bids were as follows: W. N. Pike & Sons, $215,517; John A. Peabody & Son, $215,890; John A. Driscoll, $277,777. Noted Apr. 29.

+Northampton, Mass.—The Church of the Sacred Heart has awarded the contract for the construction of a one-story, 50x150-ft. church to BERNIER & VANASSE, 101 King St. John W. Donahue, 476 Main St., Springfield, Mass., is Arch. Rev. P. Trother is Pastor.

Salem, Mass.—The Essex County Independent Agricultural School has appropriated $100,000 for the construction of a two-story brick building.

Southbridge, Mass.—Thomas F. Murphy has awarded the contract for the construction of a brick and reinforced-concrete theater on Main St. to A. BOYER & SON, Hamilton St. Samuel Macintosh, Providence, R. I., is Arch. Noted Feb. 25.

Southbridge, Mass.—Bids will be received until June 23 by the School Com., for the construction of a high school. Bidders must be registered by June 16 with the architect. Peabody & Stearns, 53 State St., Boston, Mass., is Arch. F. E. Corbin is Secy of Com. Noted Oct. 29 and Apr. 1.

+Springfield, Mass.—Edward Riley has awarded the contract to EDWARD RODDING for the construction of a four-story, 75x153-ft., brick building at 665 State St., to cost $70,000. Huestis & Huestis is Arch.

Webster, Mass.—Luman H. Tiffany plans the construction of a brick and steel building on Main St. The estimated cost is $80,000.

+West Springfield, Mass.—(Official) — M. J. WALSH & SONS, Holyoke, Mass., has been awarded the general contract for the construction of an addition to the high school, at $71,660. Sub-contracts were awarded as follows: Heating, Richards & Chard, Stamford, Conn., $8561; Plumbing, J. J. Cotter, Springfield, Mass., $3638; Electrical, R. A. Turner & Co., $3170.30. Fowle & Harding, Westfield, Mass., is Arch.

+Winthrop, Mass.—The contract for the construction of an addition to the high school has been awarded to CHARLES E. CURRIER, at $59,289. Other bids were as follows: C. S. Cunningham & Sons Co., $60,666; Haynes Construction Co., $62,490; W. George Greenlay, $63,895; Marr Bros. & Stewart Co., $64,914; Whitcomb & Kavanaugh, $70,653; and Gascoigne & Goddard, $82,095. Winthrop Magee is Mayor.

Worcester, Mass.—Bids will be received until 11 a.m., June 15, by the County Commissioners, for alterations to the judges' room and criminal court house. Jacquest & Pontoul, Boston, Mass., is Arch.

+Providence, R. I.—The Lederer Realty Corporation has awarded the contract for the construction of a six-story office building at Mathewson & Fountain St. to WILLIAM WILLIAMS.

Providence, R. I.—George E. Becket will build an apartment block on Cushing St. Thomas J. Hill Peirce, 413 Jackson Bldg., is Arch.

Providence, R. I.—St. Sebastian's R. C. Church will build a one-story, 78x114-ft. church, at an estimated cost of $100,000. Murphy, Hindle & Wright, 146 Westminster St., is Arch.

Middletown, Conn.—According to press reports Pres. Shanklin announces that a four-story dormitory will be constructed at Wesleyan University, estimated to cost $125,000.

+Waterbury, Conn.—St. Stanislaus Church has awarded the contract to JOHN W. GAFFNEY & SON, 427 East Main St., for the construction of a one-story, 65x133-ft. church. The estimated cost is $65,000. L. A. Walsh, 51 Leavenworth St., is Arch. Rev. Thomas Zimmerman is Pastor.

Buffalo, N. Y.—Esenwein & Johnson, Arch., 781 Ellicott Square Bldg., is preparing plans for the construction of a 12-story office building and clubhouse on Pearl St. near Niagara St. for the Buffalo Athletic Club, 80 Erie County Bank Bldg. S. B. Nye is Chn. of Bldg. Com.

Geneva, N. Y.—The Ark Chapter of the Masonic Lodge plans to construct a three-story Masonic Temple on Castle St. near Main St. Estimated cost, $50,000. I. Edgar Hill, Loan Association Bldg., is Arch., and Charles Root is Grand Master.

Gloversville, N. Y.—The Board of Education contemplates the construction of a school on North Main St. Estimated cost, $75,000. J. Schuyler Hewitt, 15 North Main St., is Pres.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids have been received for the construction of a concrete dormitory for females at the Riverside Hospital, North Brother Island, as follows: Joseph Kresse Co., 1133 Broadway, New York, $64,400; McHarg-Barton Co., 171 Madison Ave., New York, $69,280; Kelly & Kelley, 12th St., Long Island City, $57,900; Marble Arch Co., Broadway and 216th St., New York, $67,417; Ruggles-Robinson Co., 331 Madison Ave., New York, $64,967; Lincoln-Steele Fleming Co., 17 Madison Ave., New York, $74,962. Noted May 13.

★New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 2:30 p.m., June 16, by the State Hospital Commission, Capitol, Albany, for the rebuilding of the old wall in the main building at the Long Island State Hospital, Brooklyn. Lewis F. Pilcher, Capitol, Albany, is State Arch.

New York, N. Y.—(Borough of Brooklyn)—Work will soon begin on the construction of a three-story building at Kingston Ave. for the Diphtheria Hospital. The estimated cost is $100,000. The Department of Health will be in charge of the work.

+New York, N. Y.—(Borough of Brooklyn)—The contract for the construction of a two-story, 100x200-ft. theater at Fifth Ave. between 43d and 44th St. for the One Hundred and

Ninetieth Street Holding Co., St. Nicholas Ave. and 190th St., New York, has been awarded to GEORGE THOMAS, 32 East 42nd St., New York. Estimated cost, $100,000. Noted Mar. 18 and June 3.

New York, N. Y.—(Borough of Manhattan)—The McMorrow Engineering & Construction Co., 271 West 125th St., has purchased a site at 789-797 West End Ave. for the construction of a 12-story apartment house which will cost about $1,000,000.

New York, N. Y.—(Borough of Manhattan)—Bids will be received until June 15 by Donn Barber, Arch., 101 Park Ave., for the construction of a 10-story building at 608-614 Lexington Ave. for the Y. W. C. A., 600 Lexington Ave. F. A. Burdett & Co., 16 East 33d St., is Steel Engr. Estimated cost, $340,000. Noted Apr. 1.

New York, N. Y.—(Borough of Manhattan)—Bids will be received until June 15 by Parish & Schroeder, Arch., 12 West 31st St., for the construction of an eight-story clubhouse at East 45th St. for the Y. W. C. A., 600 Lexington Ave. The estimated cost is $400,000. Noted May 6.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by Louis E. Jollade, Arch., 37 Liberty St., for enlarging the Harlem Branch of the Y. W. C. A. at Lenox Ave. and 124th St. The estimated cost is $250,000. Noted Feb. 25.

New York, N. Y.—(Borough of Manhattan)—A 16-story loft building will be constructed at Madison Ave. and 38th St. on the site of the Havemeyer mansion. The estimated cost is $650,000.

✚New York, N. Y.—(Borough of Richmond)—The contract for the construction of a two-story recreation building at Sailors Snug Harbor, S. I. (New Brighton post office), for the Sailors Snug Harbor Corporation, 61 Broadway, New York, has been awarded to the EDWARD CORNING CO., 100 William St., New York. Estimated cost, $40,000. Noted Apr. 8.

Utica, N. Y.—Edward J. Berg, Arch., 223 Elizabeth St., is preparing plans for the construction of a three-story, 48x95-ft. parochial school on Huntington and West Cooper St. for St. Patrick's Church. The estimated cost is $50,000. Bids will be received about July 1. Noted Feb. 4.

✚Atlantic City, N. J.—The general contract for the construction of a six-story addition to the Hotel Strand, Pennsylvania and Beach Ave., has been awarded to IRWIN & LEIGHTON, 126 North 12th St., Philadelphia, Penn., at $265,000. Noted Apr. 1 and 22.

Atlantic City, N. J.—Contracts will be awarded about July 10 by the Board of Education for the construction of a three-story addition to the school. The estimated cost is $150,000. Noted Apr. 15 and 22.

Bridgeton, N. J.—Plans are being prepared by Ford, Butler & Oliver, Arch., 101 Park Ave., New York, N. Y., for the construction of a one-story bank building for the Cumberland Trust Co. Estimated cost, $75,000. James S. Ware is Chn. of Bldg. Com.

Englewood, N. J.—Plans are being prepared by Ernest Sibley, Palisade Park, and J. J. Ferry, Assoc. Arch., Dean St., Englewood, for the construction of a school on Engle St. The estimated cost is $150,000. Graham Summer is Pres., Bd. of Education. Noted Apr. 15.

Montclair, N. J.—The Town Council has approved a bond issue of $150,000, for the completion of the new high school and alterations to the old high school.

Vineland, N. J.—Plans are being prepared by George S. Drew, State Arch., Trenton, for the construction of a one-story dining and service building at the State Home for Feeble-Minded Women. The estimated cost is $50,000. Contracts will be awarded about July 1.

West Hoboken, N. J.—Bids will be received about June 15 by Leo S. Feinen, Arch., 3697 Blvd., Jersey City, for the construction of a two-story building at Summit Ave., Paterson Plank Rd. and De Mott St. for the National Bank of North Hudson. Estimated cost, $50,000. Noted Dec. 3.

Dormont, Penn.—(Pittsburgh post office)—J. A. Long & Son, Arch., Benedum-Rees Bldg., Pittsburgh, is preparing plans for the construction of a three-story, 65x100-ft. lodge and store building for the South Hills Hall Association. L. H. Johnson, Benedum-Rees Bldg., Pittsburgh, is Chn. of Bldg. Com. Estimated cost, $55,000.

✚Irwin, Penn.—The contract for the construction of the Irwin-North Huntington Township High School has been awarded to J. E. MYERS, Penn Station. Estimated cost, $100,000.

✚Lebanon, Penn.—F. ROE SEARING, Philadelphia, has been awarded the contract for the construction of a one- and two-story, 60x110-ft. armory by the State Armory Board. McCormick & French, Wilkes-Barre, is Arch. Noted Jan. 14.

Lebanon, Penn.—A. A. Ritchie, Arch., 33 North Sixth St., is preparing plans for the construction of a two-story high school. The estimated cost is $150,000.

Philadelphia, Penn.—Adin B. Lacey and Alexander Adams, Assoc. Archs., are preparing plans for the construction of a five-story, 36x100-ft. office building on Broad near Arch St. for the Philadelphia Life Insurance Co. Noted May 27.

Philadelphia, Penn.—Sauer & Hahn, Arch., 1112 Chestnut St., is preparing plans for the construction of a six-story fireproof building at 315 Arch St. for Charles Schmidt.

Philadelphia, Penn.—Plans are being prepared by Philip Johnson, Arch., Lund Title Bldg., for the construction of a one-story, 150x225-ft. drill hall, a two-story, 40x210x360-ft. administration building and a two-story, 135x150-ft. stable for the state. The buildings will be located at 32d, 33d, Lancaster and Cuthbert St. The estimated cost of the project is $200,000. Noted May 20.

✚Philadelphia, Penn.—The contract for the construction of a parochial school at Chestnut Hill for the Church of Our Mother of Consolation has been awarded to JACOB MYERS & SONS, Witherspoon Bldg., Philadelphia, at about $80,000. Noted May 27.

Pittsburgh, Penn.—Contracts will be awarded about July 1 for the construction of the South Hills Bailey High School at Ruth, Eureka and Harwood St. and Secane Ave. The estimated cost is $850,000. Noted Apr. 15.

Wilmington, Del.—Plans are being prepared by Hoffm Co., Arch., Globe Theater Bldg., Philadelphia, Penn., for t construction of a three-story theater for R. Topkis & So The estimated cost is $125,000.

Baltimore, Md.—Theodore Wells Pietsch, Arch., has pr pared tentative plans for the construction of a church a parsonage at Charles Street Ave. and University Parkwa for the North Baltimore Methodist Episcopal Church Sout The estimated cost is $175,000. J. W. Smith is Pastor.

✚Washington, D. C.—The contract for the construction o a five-story bank building for the National Savings Trus Bank has been awarded to the BOYLE-ROBERTSON CON STRUCTION CO., 1516 H St. N. W., Washington. Estimate cost, $150,000. Noted May 6.

Charleston, W. Va.—Plans have been prepared by Davi Dick, Arch., for the construction of an addition to the courthouse. The estimated cost is $50,000.

Charleston, W. Va.—Preliminary plans have been prepare by A. G. Higginbotham, Arch., for the construction of a three-story apartment for W. S. Mason. Estimated cost, $50,000. Noted Apr. 29.

Clarksburg, W. Va.—The Clarksburg Protestant Hospital Co. plans to construct a hospital to cost about $150,000. F. M. Goodman is Secy.

Glenville, W. Va.—Bids will be received until 2 p.m., June 29, by the State Board of Control, Charleston, for the construction of a three-story, 50x169-ft. dormitory at the Glenville Normal School. H. Rus Farne, Charleston, is Arch.

Huntington, W. Va.—Bids will be received until 2 p.m., June 29, by the State Board of Control, Charleston, for the construction of a three-story, 79x143-ft. science hall at Marshall College.

Morgantown, W. Va.—Bids will be received until 2 p.m., June 29, by the State Board of Control, Charleston, for the construction of buildings at the West Virginia University. The work will include a three-story, 44x141-ft. addition to the Mechanical Hall with two, three-story wings, one 44x67 ft. and one 43x55 ft., and a three-story, 55x75-ft. building for the School of Medicine. The cost is estimated at $100,000. H. Rus Farne, Charleston, is Arch. and J. S. Larkin is Pres. of Bd.

Wheeling, W. Va.—Bids will be received until June 14 by Frank Stanton, Clk., Bd. of Education, for the construction of a two-story school on Wheeling Island. The school will have 16 rooms and an auditorium with a seating capacity of 500. Estimated cost, $100,000.

Greenville, S. C.—At an election recently held the citizens voted in favor of issuing $75,000 in bonds. The proceeds will be used for the construction of a high school and a grammar school.

Atlanta, Ga.—The Subcommittee of the Council Bond Issue Committee has recommended that bonds to the amount of $375,000 be issued for the construction of buildings at the Grady Hospital. The amount includes a new building, $100,000, a nurses dormitory, $60,000, outdoor clinics, $50,000, building for contagious diseases, $50,000, and $40,000 for miscellaneous purposes. J. L. McCord and J. C. White are Councilmen.

Birmingham, Ala.—The Louis Saks Clothing Co. plans to construct a five-story mercantile building at Second Ave. and 19th St. on the site of the Florence Hotel. The estimated cost is $150,000.

Ashland, Ky.—Bids are being received by Weber, Werner & Adkins, Arch., 1206 Mercantile Library Bldg., Cincinnati, Ohio, for the construction of a four-story building for the Second National Bank. Estimated cost, $60,000. Noted May 6.

Covington, Ky.—Samuel Hannaford & Sons, Arch., Sixth and Vine St., Cincinnati, Ohio, has prepared tentative plans for the construction of the Booth Memorial Hospital on East Second St. for the Salvation Army. The estimated cost is $100,000. W. S. Barker, Salvation Army Headquarters, 120 West 14th St., New York, N. Y., is Property Secy.

Louisville, Ky.—Bids will be received until June 18 by John Bacon Hutchings & Sons, Arch., Columbia Bldg., for the construction of a Y. W. C. A. building at Second St. and Broadway. The estimated cost is $250,000. Noted Dec. 24.

Akron, Ohio—Plans have been approved by the members of the Auditorium Committee of the Chamber of Commerce for the construction of the State armory on South Broadway. The estimated cost is $165,000, Harpster & Bliss, Nantucket Bldg., is Arch. Noted Jan. 28.

Alliance, Ohio—Bids will be received until June 15 by C. C. & A. L. Thayer, Arch., Mercantile Bldg., New Castle, Penn., for the construction of a two-story Masonic Temple for the F. & A. M. Estimated cost, $45,000. Otis Wilcox is Chn.

Barberton, Ohio—Bids will be received until June 21 by the Board of Education for the construction of a two-story, 101x207-ft. high school. The estimated cost is $115,000. Harpster & Bliss, Nantucket Bldg., Akron, is Arch. Noted May 13.

Camden, Ohio—Plans prepared by E. R. Thompson, Arch., for the construction of a school at Camden, have been approved and accepted by the School Board. The estimated cost is $60,000.

✚Cincinnati, Ohio—DAVID HUMMEL BUILDING CO., 2629 Spring Grove Ave., Cincinnati, at $40,500, has been awarded the contract for the construction of the building for women at the University of Cincinnati. Noted Feb. 11.

Cincinnati, Ohio—The Board of Education plans to expend about $300,000 which will be used to repair school buildings. Charles Handman is Business Mgr.

Cincinnati, Ohio—The Building Committee of the Y. M. C. A. has accepted plans for the construction of a nine-story building at Canal and Elm St. The estimated cost is $500,000. Noted Feb. 11.

Cleveland, Ohio—Bids will be received until 4 p.m., June 25, by the Secretary of the Cleveland Public Library Board, 1375 Euclid Ave., for the construction of a library on East 79th St. near North Superior Ave. John G. White is Pres. and Carl Lorenz is Secy. of Library Bd. William R. Powell, 1106 Hippodrome Bldg., is Arch. Noted Feb. 25.

+Cleveland, Ohio—The Board of Education has awarded the contract for the construction of an addition to the Central School at Central and 65th St. to GEORGE A. RUTHERFORD CO., 2160 East 18th St., Cleveland, at $55,495. Noted May 6.

Cleveland, Ohio—Fulton & Taylor, Arch., Permanent Bldg., has prepared plans for the construction of 11 three-story apartment houses and a six-story hotel at Euclid Ave. and East 66th St. through to Carnegie Ave. for the Euclid Avenue Carnegie Co. The estimated cost is $600,000. Noted Dec. 3.

Cleveland, Ohio—Preliminary plans are being prepared by W. S. Lougee, Arch., 500 Marshall Bldg., for the construction of a three-story lodge and store building for the Cleveland Bricklayers' Benevolent Association, 498 East 117th St. Estimated cost, $50,000. W. E. Potter is Secy.

Ironton, Ohio—Stribling & Lum, Arch., 540 Denig-Ferson Bldg., Columbus, is preparing plans for the construction of a five-story Masonic Temple for Lawrence Lodge No. 198. L. F. Selb is Secy. Estimated cost, $50,000. Noted May 27.

Ironton, Ohio—The Ironton Hotel Co. is making financial arrangements for the construction of a five-story, 145x200-ft. hotel. Estimated cost, $100,000. George W. Koonce, 246 South Sixth St., is Secy. Noted Sept. 17.

+Lancaster, Ohio—The contract for the construction of the municipal hospital for the Hospital Commission has been awarded to ASA F. MORELOCK, Marysville, at $48,000. W. T. Mills, Columbus, is Arch. Noted May 13.

+Middletown, Ohio—The contract for the construction of an addition to the building at Third and Broad St. for the John Ross Co. has been awarded to CALDWELL & ISEMINGER, Middletown. Estimated cost, $68,000.

Niles, Ohio—Charles F. Owsley, Arch., 13th floor, Mahoning County Bank Bldg., Youngstown, is preparing plans for the construction of a one-story building for the Dollar Savings Bank Co. The estimated cost is $100,000. W. H. Stevens, 36 South Main St., Niles, is Secy.

Toledo, Ohio—Plans are being prepared by Joseph P. Jogerst, Arch., 1402 Kresge Bldg., Detroit, Mich., for the construction of a six-story apartment hotel to be known as "The Scottwood." The estimated cost is $100,000.

Youngstown, Ohio—G. A. Skoog, Arch., 1104 Mahoning County Bank Bldg., is preparing plans for the construction of a six-story clubhouse for the Swedish Building Association, 226 West Front St. Estimated cost, $50,000.

Crown Point, Ind.—The County Commissioners have been petitioned to appropriate $50,000, to be used for the construction of a county tuberculosis sanitarium.

+Evansville, Ind.—The contract for the construction of a ten-story building for the St. George Hotel Co. has been awarded to CALDWELL & DRAKE, Columbus. F. H. Van Orman, 401 Upper First St., Evansville, is interested. Estimated cost, $400,000.

Detroit, Mich.—The Detroit Rescue Home for Girls, West Fort and 22d St., will construct a building at West Fort St. and the West Grand Blvd. Estimated cost, $50,000. Richard P. Joy, Pres. of the National Bank of Commerce, Union Trust Bldg., is Treas.

Grand Rapids, Mich.—The State Legislature has appropriated $90,000, which will be used for the construction of an armory for the Grand Rapids Battalion of the Michigan National Guard.

Hastings, Mich.—Bids will be received until June 22 by William L. Shulters for the construction of a two-story, 100x206-ft. school. The estimated cost is $80,000. R. A. Le Roy, Pratt Bldg., Kalamazoo, is Arch.

Chicago, Ill.—H. L. Newhouse, Arch., 4630 Prairie Ave., is preparing plans for the construction of a three-story, 245x258-ft. theater, store and office building for Frank F. Greenwald. The estimated cost is $150,000.

Chicago, Ill.—Bids will be received about June 12 by Ottenheimer, Stern & Reichert, Arch., 220 South State St., for the construction of a nine-story clubhouse for the Chicago Lodge No. 4, B. P. O. E. The estimated cost is $250,000. Noted May 6.

Oak Park, Ill.—Lyman Furbeck plans to construct a building containing 45 apartments at 811-17 Lake St. The estimated cost is $150,000.

Appleton, Wis.—Cooledge & Hodgson, Arch., Chicago, Ill. is preparing plans for the construction of a building for the Citizens' National Bank. The estimated cost is between $65,000 and $75,000.

Kenosha, Wis.—Bids will be received about June 15 by the Board of Education for the construction of the two-story Kenosha High School on Collins St. The estimated cost is $100,000. Howard H. Hahn, Benedict & Tarbell Bldg., is Arch. Noted May 6.

+Milwaukee, Wis.—The contract for the construction of an addition and alterations to the Knights of Columbus Institute, Grand Ave. and 15th St., has been awarded to EDWARD STEIGERWALD, 2303 Galena St., Milwaukee. Burst, Philipp & Heimel, Camp Bldg., is Arch. Estimated cost, $90,000.

Waukesha, Wis.—The Board of Education has dismissed the architect selected to prepare plans for a high school to cost about $125,000. A new architect will soon be selected by the Board. George B. Harris is Pres. of Bd. Noted Mar. 11.

Armstrong, Iowa—Contracts will be awarded about June 15 by the Independent School District for the construction of a three-story grade and high school. Estimated cost, $50,000. Alban & Lockhart, 347 Endicott Bldg., St. Paul, Minn., is Arch.

Forest City, Iowa—Contracts will be awarded about June 22 by the Independent School District for the construction of a three-story high school. The estimated cost is $70,000. Noted May 6.

Mason City, Iowa—Tentative plans have been submitted to the Board of Education by J. H. Felt & Co., Arch., 804 Grand Ave., Temple Bldg., Kansas City, Mo., for the construction of a high school. The estimated cost is $300,000. Noted May 27.

Sioux City, Iowa—T. S. Martin, Pres. of the T. S. Martin Dry Goods Co., plans to construct a ten-story office and store building at Fourth and Nebraska St. The estimated cost is $750,000.

Minneapolis, Minn.—Bids recently received for the construction of a 12-story hotel on Second St. and Hennepin Ave. for the Union City Mission have been rejected. New bids will soon be received by C. E. Bell, Arch., 310 Security Bank Bldg. The estimated cost is $200 000. Noted Apr. 1.

Minneapolis, Minn.—The Metropolitan National Bank, Metropolitan Life Bldg., plans to construct an office building at Sixth St. and Second Ave. Estimated cost, $300,000. V. H. Van Slyke is Pres.

St. Paul, Minn.—See item under "Miscellaneous."

Omaha, Neb.—The Masonic Order, 16th St. and Capitol Ave., plans to construct a five- or six-story fireproof temple at 19th and Douglas St. The estimated cost is $250,000. George B. Prinz, Omaha National Bank Bldg., is Arch. Noted Mar. 18.

Sioux Falls, S. D.—The Sioux Falls Construction Co., Sioux Falls, at $109,750, submitted the lowest bid for the construction of the South Side Grammar School and an addition to the Lincoln Grammar School.

+Grand Forks, N. D.—The Board of Education has awarded the contract for the construction of a high school to the GREY CONSTRUCTION CO., Watertown, S. D., at $169,000 Noted Aug. 20.

Billings, Mont.—Preliminary plans have been approved for the construction of an addition to the Sisters of Charity Hospital. The estimated cost is $85,000.

+Bozeman, Mont.—H. J. HAMMILL & CO., Bozeman, has been awarded the contract for the construction of a three-story parochial school and parish house for the Holy Rosary Church. Estimated cost, $50,000.

Havre, Mont.—Horton & Willits, Great Falls, at $118,970, submitted the lowest bid for the construction of the courthouse and jail for Hill County. John H. Devine is Clk. of the County Comn. Noted May 13.

St. Joseph, Mo.—(Official)—Bids will soon be received for the construction of an eight-room adition to the grade school. The estimated cost is $60,000. Eckel & Aldrich, Forsee-Corby Bldg., is Arch. Noted May 27.

St. Louis, Mo.—Plans have been prepared by George D. Barnett for the construction of the Kerens Memorial Chapel in the new cathedral for Richard C. Kerens, Times Bldg. The estimated cost is $75,000.

St. Louis, Mo.—The St. Louis Amusement Co. plans to construct a motion picture theater at 208 North Sixth St. Estimated cost, $40,000. George E. Lawlor is Secy.

Dallas, Tex.—Bids will be received until June 15 by the Board of Education for the construction of a four-story high school. The estimated cost is $200,000. Noted Mar. 18.

El Paso, Tex.—The El Paso Aerie No. 73, Fraternal Order of Eagles, plans to construct a building. Estimated cost, $100,000. W. J. Moran, J. C. Perry and James Connors are members of Bldg. Com.

Orange, Tex.—The City Commission will soon call an election to vote on the question of issuing $150,000 in bonds. The proceeds will be used for the construction of public schools.

Sapulpa, Okla.—At an election held recently the citizens voted in favor of the question of issuing $150,000 in bonds. The proceeds will be used for the construction of a high school.

Tulsa, Okla.—George Winkler, Arch., is preparing plans for the construction of a four-story, 125x270-ft. high school for the Tulsa School District. The estimated cost is $300,000. Bids will be received and contracts awarded about Sept. 1.

+Pocatello, Idaho—(Official)—The contract for the construction of a high school has been awarded to D. C. MURPHY & CO., Pocatello. The estimated cost is $100,000. W. R. Siders is Supt. Noted May 6 and 20.

Tucson, Ariz.—The Legislature has appropriated $75,000 which will be used for the construction of a mining and engineering building at the University of Arizona. R. B. Von Kluss Smid is Pres. of the university.

+Everett, Wash.—The contract for the construction of a public building, at Everett, has been awarded to HENRICKSON & CO., Seattle, at $111,500.

Spokane, Wash.—The construction of a convent on Dakota St. for the Franciscan Order of Nuns is under consideration. Estimated cost, $75,000.

Tacoma, Wash.—The construction of the proposed gymnasium for the Stadium High School has been postponed until the summer. Health & Gove, National Realty Bldg., is Arch. The estimated cost is $55,000. Noted Apr. 22.

Tacoma, Wash.—Plans have been approved by the Chicago, Milwaukee & St. Paul Ry. for the construction of a passenger station at 25th and East A St. The estimated cost is $400,000. A. J. Earling, Chicago, Ill., is Pres. and C. F. Loweth, Chicago, Ill., is Ch. Engr.

Vancouver, Wash.—D. Nichols, Arch., Vancouver, and Julius Zittel, Arch., Rookery Bldg., Spokane, have been commissioned to prepare plans for the construction of a School for the Blind. The estimated cost is $75,000.

Walla Walla, Wash.—All bids recently submitted to the County Commissioners of Walla Walla County for the construction of a $150,000 courthouse have been rejected. M. J. Hursen Co., Globe Bldg., Seattle, at $137,750 using Boise stone, submitted the lowest bid. C. F. Dement, is County Audr. Noted May 27.

Huntington Beach, Calif.—The lowest bid submitted for the construction of a school was that of Harvey Garber, Orange, at $40,694. John C. Smith, 325 Hillman Bldg., Los Angeles, is Arch. Noted Apr. 15 and May 20.

+Los Angeles, Calif.—The contract for the construction of a two-story 51x146-ft. ward building and a two-story 61x94-ft. addition to the Old Ladies' Home at the County Farm has been awarded to the DAVIDSON CONSTRUCTION CO., 16th and Tennessee St., Los Angeles, at $44,000. George Low is Superv. Arch.

Contracts to Be Let

Bids received until June 15, 1915.

Street Improvements

DEPARTMENT OF PUBLIC WORKS.

Philadelphia, Pa.

Sealed proposals will be received until 12 o'clock, noon, on Tuesday, June 15th, 1915, for, and opened at that time in Room 225, City Hall:

Improvement of the Northeast Boulevard and Branches, from Rhawn St. northward.

Estimated quantities of the principal items of work to be done are as follows:

Grading	232,605 cu.yds.
Bituminous Pavement	58,457 sq.yds.
Sewers	7,257 lin.ft.
Vitrified Block Paving	9,220 sq.yds.
Concrete Curb	17,490 lin.ft.
Concrete Footways	10,915 sq.yds.
Topsoil	72,000 sq.yds.
Electrical conduits	3,000 lin.ft.
Trees and Shrubs	2,400

Together with the necessary incidental work.

A charge of five (5) dollars will be made for each set of specifications and drawings, which will be refunded upon the return of the unused specifications and drawings in good condition, or upon the return of the drawings in case a bid is submitted.

Inquire at Room 232, City Hall, Philadelphia.

M. L. COOKE, Director.

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Bids received until June 21, 1915.

Sewage Disposal Works

Greenwich, Conn.

Sealed proposals will be received by the Sewer Commissioners of the Town of Greenwich, Connecticut, at their office in the Town Building until eight o'clock P.M., on Monday evening, June 21st, 1915, for the construction of a Sewage Disposal Works to be erected in East Port Chester, Connecticut, Sewer District No. 9.

Plans and specifications can be seen or obtained at the Offices of the Sewer Commissioners, Town Building, Greenwich, Connecticut, Mr. Sheldon E. Minor, C. E., Trust Company Building, Greenwich Avenue, Greenwich, Connecticut, or Mr. Clyde Potts, Consulting Engineer, No. 30 Church Street, New York City, New York. The right is expressly reserved to reject any or all bids.

WILLIAM WILSON HEATON,
ISAAC M. HUBBARD,
ALBERT C. PECK,
Sewer Commissioners of the Town of Greenwich, Connecticut.

Dated Greenwich, Connecticut, June 3rd, 1915.

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Bids received until June 25, 1915.

Water-works Elevated Water Tower

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO.

City of Stratford, Ontario, Canada.

Specifications for a 500,000 Imperial gallon elevated water tower will be issued on Friday, June 4th, and Sealed Tenders, mailed to the undersigned, and marked "Tender for Stratford Elevated Water Tower," will be accepted until 9 a.m. on Friday, June 25, 1915. Copies of the above specifications, and form of tender, can be obtained from the address given below.

The lowest or any tender will not necessarily be accepted.

F. A. GABY, Chief Engineer,
Hydro-Electric Power Commission of Ontario,
Continental Life Building, Toronto, Ontario.

Bids received until June 16, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. on Wednesday, June 16th, 1915, for the improvement of highways in the following counties:

Broome, 2 highways (0.68; 2.32); Delaware (approx. length 2.50); Fulton (approx. length 4.58); Hamilton, 2 highways (4.22; 4.54; Lewis (approx. length 6.86); Monroe, 2 highways (4.54; 6.05); Niagara, 4 highways (1.32; 4.42; 2.33; 5.07); Herkimer (approx. length 8.89); Oneida (approx. length 8.89); Onondaga, 3 highways (3.06; 7.23; 1.91); Orleans, 2 highways (2.46; 1.80); Rensselaer, 2 highways (0.34; 0.88).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the offices of the Division Engineers in whose divisions the roads are to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especal attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
IRVING J. MORRIS, Secretary.

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Bids received until June 28, 1915.

Storm Sewer System

Kirksville, Mo.

Sealed proposals on blanks furnished by the City and addressed to the Mayor and City Council, Kirksville, Mo., will be received until 7 o'clock P.M., June 28, 1915, for furnishing all material and labor for the construction of a system of storm sewers in Joint Storm Sewer District Number Three of said City, as per plans and specifications adopted by them, as follows:

Approximately 257 lineal feet of 36-inch, 640 feet of 30-inch, 485 feet of 24-inch, 540 feet of 18-inch, 595 feet of 15-inch, 565 feet of 12-inch, 600 ft. of 10-inch storm sewer with all necessary manholes, catch basins and other appurtenances.

Each bid must be accompanied by a certified check for $600 made payable to the Mayor and City Council.

Plans and specifications may be seen at the office of the City Clerk or of the Engineer.

C. E. MURRELL, Mayor.
R. M. MILLER.
THOMAS RAINEY.
O. D. McKASSON, City Clerk.
C. V. DOWNING, Engineer.

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Bids received until June 23, 1915.

Bridge

San Francisco, Calif.

Bids will be received by the Board of Public Works, City Hall, San Francisco, at 3 p.m., June 23rd, 1915, for constructing and erecting a Strauss Trunnion bascule bridge and substructure and approaches on Fourth St. over the Channel St. waterway, San Francisco.

Drawings, specifications and blank forms of proposal may be obtained from the City Engineer, City Hall, San Francisco. Blank forms of proposal can also be obtained at the office of "Engineering News," New York, where drawings and specifications are on file.

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U. S. ENGINEER OFFICE, Cincinnati, O., May 26, 1915.—Sealed proposals for building a Power House at Dam No. 29, Ohio River, near Ashland, Ky., will be received here until 2 p.m., June 15, 1915, and then publicly opened. Information on application. H. JERVEY, Lt.-Col., Engrs.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

RAILWAYS—STEAM AND ELECTRIC

Maine—Maine Central R.R.—This company, according to press reports, contemplates the extension of its line from Skowhegan to Norridgewock. B. T. Wheeler, Portland, Maine, is Ch. Engr.

Connecticut—Meriden, New Britain & Hartford Ry.—This company plans to start work soon on the extension of its electric railway, by another route, from Meriden to Hartford. Noted Apr. 1.

Pennsylvania—Eastern Pennsylvania Rys. Co.—Press reports state that this company plans to build two miles of track between Pottsville and St. Clair. W. B. Rockwell is Pur. Agt. and Gen. Mgr.

Pennsylvania—Pennsylvania R.R.—This company plans to electrify its Chestnut Hill branch. A. C. Shand, Philadelphia, Penn., is Ch. Engr.

West Virginia—Virginian Ry.—This company contemplates the construction of a 50-mile branch line to the coal fields in Buchanan County, Va. H. Fernstrom, Norfolk, is Ch. Engr.

North Carolina—North Carolina Traction Co.—This company will award contracts about July 1 for the construction of its proposed electric railway from High Point, N. C., via Winston-Salem, to Christiansburg, Va.

South Carolina—Carolina, Atlantic & Western Ry.—Preliminary arrangements are being made by this company to start work soon on the construction of its proposed extension from Charleston, S. C., to Savannah, Ga. William Moncure, Raleigh, N. C., is Ch. Engr. Noted Feb. 4.

Georgia—Waycross St. & Suburban Ry.—Plans are being prepared by this company to start work on the construction of its proposed extension to Gilchrist Park. John S. Walker is Secy. and Treas.

Georgia—Waycross & Western R.R.—This company contemplates the extension of its line from Milltown to Ray's Mill, Ga. E. L. Parker, Waycross, is Pur. Agt.

Georgia—Carolina, Atlantic & Western Ry.—See item under South Carolina.

Florida—The Export Phosphate Co. has completed plans for the construction of a 12-mile railway from Brandon to Tampa, Fla. Noted Apr. 8.

Florida—On account of financial conditions H. S. Laird, Milton, has decided to abandon the project of building an electric railway from Milton to Bagdad.

Florida—Jacksonville & Florida Ry. Co.—This company has completed financial arrangements for the construction of the first section, about 10 miles, of its line between Jacksonville and Providence. A. W. McKinley is Pres. Noted May 20.

Louisiana—Surveys are being for the construction of an electric railway in Gretna, from the intersection of Copernicus Ave. and Front St. to the New Orleans, Southern & Grand Isle Ry. Edward L. Slattery, New Orleans, is interested. Noted May 27.

Tennessee—Nashville, Springfield & Northern R.R.—This company has been organized for the construction of an interurban line from Nashville, Tenn., to Franklin, Ky. E. G. Stribbling, Nashville, is Pres.

✚Tennessee—Carolina, Greenville & Northern R.R. Co.—This company has awarded the contract to A. H. JACOBY, Bristol, Tenn., for grading its proposed electric railway from Bristol to Knoxville, Tenn. Noted Feb. 4 and June 3.

Kentucky—Nashville, Springfield & Northern R.R.—See item under Tennessee.

Ohio—The County Commissioners will advertise a franchise to construct an electric railway on State Rd. from the West 25th St. line to Chestnut Hill, Cleveland, Ohio.

Ohio—Cincinnati Traction Co.—This company is having plans prepared for the construction of its proposed extension to Bond Hill. C. Burckmyer is Pur. Agt.

Illinois—Chicago Surface Lines—This company has applied to the City Council in Chicago for a franchise to extend its Chicago Ave. line to the lake. F. C. Evans is Pur. Agt.

Illinois—Quincy & Western Illinois Electric Ry.—The City Council in Quincy has granted this company a three years' extension of time on its franchise in which to build its proposed line between Quincy and Niota.

Illinois—Freeport Ry. & Light Co.—According to press reports this company will soon start work on the extension of its lines on Galena St., Freeport. F. E. Kruesi is Supt.

Wisconsin—Plans are being considered to build an electric railway from Superior to Bayfield. L. E. Davis, Bayfield, is interested.

Kansas—Arkansas Valley Interurban Ry. Co.—This company plans to build an extension of its lines to Salina and one to Winfield, which will have a branch from Mulvane to Wellington.

Montana—Chicago, Milwaukee & St. Paul Ry.—According to press reports, this company will start work about Aug. 15 on the electrification of the balance of its line from Deer Lodge, Mont., to Avery, Idaho. C. F. Loweth, Chicago, Ill., is Ch. Engr. Noted July 30.

Arkansas—A company is being organized for the purpose of constructing a 15-mile interurban railway from Huntsville, Ark., to a connection with the St. Louis & San Francisco R.R.

Arkansas—Plans are being considered for the construction of a railway from Harrison to Jasper and Parthenon, Ark., about 20 miles.

Arkansas—The Chicago Mill & Lumber Co. will soon start work on the construction of its proposed railway from Cotton Plant, Ark., to its mill, about eight miles.

Texas—Houston, Richmond & Western Traction Co.—Preliminary arrangements are being made by this company and work will soon begin on the construction of its proposed line from Houston to Richmond. E. Kennedy, Houston, is interested.

Idaho—Chicago, Milwaukee & St. Paul Ry.—See item under Montana.

Utah—Salt Lake & Utah R.R.—This company plans to extend its interurban line from 14th St. through Hunter Granges, Salt Lake City, about 10 miles. R. M. Mitchell, Salt Lake City, is Pur. Agt.

Arizna—Tucson Rapid Transit Co.—Plans are being considered by this company for the extension of its University Ave. line on Park Ave. to and along the Speedway. Lee Skipwith is Pur. Agt.

Oregon—The American Timber Co., St. Helens, Ore., will construct a logging railway to its timber lands at Deer Island.

Oregon—At a recent election the citizens of Roseburg, Ore., voted to issue $300,000 in bonds, the proceeds to be used for the construction of a railway from Roseburg to the boundary of the Cascade National Forest, about 30 miles. Kendall Bros., Pittsburgh, Penn., is interested. Noted May 6.

New Brunswick—Kent Coal & Ry. Co.—This company has been granted a charter to construct a railway from Rexton to Minto, N. B., and from Rexton to Richibucto Head. Inches & Hazen, Fredericton, N. B., is interested. Noted Apr. 29.

Ontario—Surveys have been completed by the Hydro-Electric Power Commission for the construction of the proposed railway from Toronto to Montreal and Ottawa.

Ontario—The Hydro-Electric Power Commission is having plans prepared for the construction of a radial railway to run north and west of London, Ont., for 60 miles.

LIGHT, HEAT AND POWER

Portland, Maine—The Cumberland County Power & Light Co., Portland, will build a transmission line from North Gorham to Sebago Lake, thence to North Standish, a distance of six miles. A. H. Ford, Portland, is Gen. Mgr.

Manchester, N. H.—The Manchester Traction, Light & Power Co. plans to establish a steam power plant at Kelley's Falls, a substation of the Garvin Falls plant, and will extend a high-tension transmission line to Manchester. A 10,000-hp. steam turbine and generator will be installed. J. Brodie Smith, Manchester, is Vice-Pres. and Gen. Mgr. of the company.

Petersham, Mass.—It is reported that the Athol Gas & Electric Co. will extend its transmission lines from Athol to Petersham if sufficient business is guaranteed. The estimated cost of building the line and installing a distribution system is estimated at from $10,000 to $15,000. George MacKnight, Athol, is Supt. and Ch. Engr.

South Hadley, Mass.—Bids will be received until 8 p.m., June 21, by the Board of Electric Light Commissioners for a quantity of electrical apparatus, including a 75-hp. Ball steam engine, three generators, exciters, switches, etc.

Buffalo, N. Y.—Bids are being received by Lansing, Bley & Lyman, Arch., Prudential Bldg., for the construction of a power plant and service building for the Children's Hospital. Mrs. Bernard Barton, Bryant St. and Oakland Pl., is Supt.

Ithaca, N. Y.—Green & Wicks, Arch., 110 Franklin St., Buffalo, is preparing plans for additions to the central heating plant at Cornell University. The estimated cost is $35,000.

New York, N. Y.—(Borough of Brooklyn)—(Official)—See item under "Sewers."

✚Oswego, N. Y.—The Diamond Match Co. has awarded the contract for the construction of a new power house in Oswego to PETER REBY. It will be 80x88 ft. with a 235-ft. smokestack. The equipment to be installed includes two 500-hp. boilers with automatic stokers (with space for a third one of the same size), and two 1000-kw. turbo-generators.

✚Utica, N. Y.—St. Luke's Hospital has awarded the contract for the construction of a one-story 31x70-ft. boiler house to GRIFFIN & PIERCE, at $6000.

Camden, N. J.—The Public Service Electric Co. has applied to the Public Utilities Commission for permission to lay underground conduits on Market St. and Broadway, Camden.

Jersey City, N. J.—Bids will be received until 3 p.m., June 23, by G. Fred Ege, Secy., Bd. of Education, for electrical equipment for the electrical laboratory at the William L. Dickinson High School.

Kane, Penn.—Press reports state that the United Natural Gas Co. will start work at once on the construction of a 20-in. pipe line from the pump station at Lamont Siding, four miles from Kane, to the testing station at Lewis Run near Bradford. The work will cost approximately $200,000.

✚Mahoningtown, Penn.—(Official)—The contract for heating and ventilating equipment for a new school has been awarded to BARNES & CLARK, New Castle, at $13,201; the contract for the plumbing was awarded to R. F. WITHERS & SON at $4000. See item under "Buildings."

Orangeburg, S. C.—An election will be held June 29 to vote on the question of issuing $15,000 in bonds for the improvement of the municipal electric-light plant. Edward Howes is City Engr.

Toccoa, Ga.—At a recent election the citizens voted in favor of a bond issue of $35,000 for the purpose of building a municipal electric-light plant.

Birmingham, Ala.—(Official)—The Board of City Commissioners has directed Julian Kendrick, City Engr., to ascertain the cost of a hydro-electric plant on the Warrior River at Lock No. 17, to be established to furnish light and power for the City of Birmingham.

Henderson, Tenn.—See item under "Water Supply-Irrigation."

Memphis, Tenn.—It is reported that E. H. Crump, Mayor, is agitating the question of building or buying a municipal electric-light plant. It is also stated that a bond issue of $1,500,000 is available for the purpose.

Cleveland, Ohio—Bids will be received until noon, June 25, by the Commissioner of Purchases and Supplies, 511 City Hall, for paper insulated lead-covered cable for the municipal electric-light plant. F. W. Ballard, 1443 East Third St., is Comr. of Light and Heat Dept.

Cleveland Heights, Ohio—(Warrensville post office)—(Official)—Bids will be received until noon, July 6, by Ezra K. Bryan, Clk. of the Bd. of Education, Cleveland Heights village school district, for a heating plant for the new high school and Lee Rd. school buildings, and for mechanical equipment for the Lee Rd. grade school and connecting it with the heating plant.

Dayton, Ohio—It is reported that the Public Utilities Commission has granted permission to the Dayton Power & Light Co. to issue $172,000 in additional capital stock, the proceeds of which will be used to increase the output of the plant from 20,000 to 30,000 hp.

Fremont, Ohio—It is reported that the Sandusky River Power Co. will add an auxiliary steam power house to its plant at a cost of about $500,000.

Calumet, Mich.—It is reported that the Mohawk Mining Co., Calumet, contemplates the construction of an electric-light and power plant.

Three Rivers, Mich.—It is reported that plans have been prepared by George Champe, Consult. Engr., Toledo, Ohio, for a municipal electric-lighting and water plant. A bond issue of $50,000 has been voted for the work.

Oakley, Kan.—See item under "Water Supply-Irrigation."

Davenport, Neb.—According to press reports bids will soon be asked for the construction of a municipal electric-light plant in Davenport. Charles F. Sturtevant, Holdredge, Neb., is Consult. Engr.

Grand Island, Neb.—The Grand Island Electric Co. has received permission from the State Board of Irrigation to construct a hydro-electric plant on the Platte River near Grand Island. The estimated cost of the proposed plant is $55,000. T. H. Fritts is Secy., Mgr. and Cont. Agt. of the Grand Island Electric Co.

Fargo, N. D.—The Union Light, Heat & Power Co. is enlarging and improving its power station, and will install new equipment, including two 1500-kw. steam turbines, two water-tube boilers, a three-unit motor generator set of 600 hp., boiler feed pump, exciters, switchboards, etc. M. L. Hibbard is Mgr.

Miles City, Mont.—It is reported that the City Council is in favor of spending about $10,500 for the extension of the municipal steam heating system. The improvements have been recommended by J. J. McGill, Supt. of the municipal electric-light and power plant.

Charleston, Mo.—The Missouri Public Utilities Co., Cape Girardeau, has been granted a franchise to construct a transmission line from its station in Charleston to East Prairie, a distance of 12 miles, to supply light and power to the latter place.

Kansas City, Mo.—The Big Niangua Hydro-Electric Co., Kansas City, plans to establish a hydro-electric plant on the Big Niangua River. The plans include a reinforced-concrete dam, 1500 ft. long and 160 ft. high, to develop 30,000 hp., and a transmission line 120 miles long. The estimated cost is $2,500,000.

Springfield, Mo.—Local architects and builders have been asked to prepare plans and estimates for the construction of a central lighting and heating plant to serve the business buildings of the city. The contracts of many of the larger buildings with the Springfield Gas & Electric Co. and the Central Heating Co. are about to expire, and if the cost is not too great, the plant will be built this summer. John T. Woodruff, Springfield, is interested.

Brownsville, Tex.—It is reported that the City of Brownsville is considering the sale of the municipal electric-light plant to a company who will also take over the street railway system, and combine the properties. The proceeds of the sale of the light plant will be used to buy the sewerage system. J. W. Davis is City Engr.

Visalia, Calif.—The Mt. Whitney Power & Electric Co. contemplates establishing a hydro-electric plant in the Sequoia National Forest. The estimated cost is $750,000. H. A. Kluegel, Visalia, is Ch. Engr.

New Liverpool, Que.—The city of New Liverpool is reported to be considering the establishment of a new power plant and electric-lighting system. J. Hamelin is Comr.

Brantford, Ont.—The Brantford Gas Co. plans to lay new service mains between Brantford and Hamilton, a distance of 25 miles.

Hamilton, Ont.—It is reported that the Hamilton Hydro-Electric Department will spend about $240,000 during the present year for new construction. J. A. Woodman is Supt.

Peterboro, Ont.—The city contemplates the purchase of a site upon which to establish a new substation. The estimated total cost is $50,000. William Baller is Chn. Bd. of Control.

Kelowna, B. C.—The City Council is considering the installation of a hydro-electric plant at an estimated cost of $120,000. Du Cane, Dutcher & Co., Rogers Bldg., Vancouver, is Consult. Engr.

BRIDGES

✚Enosburg Falls, Vt.—(Official)—The Board of Selectmen has awarded the contract for the construction of a reinforced-concrete bridge over the Missisquoi River at Enosburg Falls to the HYNES CONSTRUCTION CO., Wales, Mass., at $8965. Other bidders were: J. W. Swan & Son, West Bridgewater, $12,500; J. A. Cashman, Burlington, $13,390; C. E. Foley, Barre, $15,183; Concrete-Steel Engineering Co., New York, N. Y., $12,045 (alternate plan). Noted May 27.

Pittsfield, Mass.—The Board of Aldermen has passed an ordinance for an appropriation of $18,000 for the construction of the Longview Terrace Bridge. A. B. Farnham is City Engr.

Springfield, Mass.—Press reports state that the city will advertise at once for bids for the construction of a bridge at Plainfield St. over the tracks of the Boston & Maine R.R. The approximate cost will be $40,000. F. H. Clark is Supt. of Streets and Engineering.

Woonsocket, R. I.—It is reported that the City Council has appropriated $9000 for the construction of two concrete bridges on Clinton St. F. A. Mills is City Engr.

New York, N. Y.—The Public Service Commission has approved an application to the War Department for permission to build a new bridge over the Bronx River at Westchester Ave. The bridge will be built to accommodate the Pelham Bay branch of the new Lexington Ave. subway.

★Scarsdale, N. Y.—(Official)—Bids will be received until 2 p.m., June 29, by William Mercer, Supt. of Highways of the Town of Scarsdale, for the construction of a highway bridge over the tracks of the New York Central R.R. at Popham Rd., Scarsdale. Jay Downer, 100 Broadway, New York, N. Y., is Engr.-in-Charge.

✚Syracuse, N. Y.—(Official)—The City Council has awarded the contract for the construction of a 60-ft. plate girder bridge with concrete slab floor and walks and concrete abutments at Taylor St. to JOHN YOUNG, at $9491. Noted May 13.

✚Bloomingdale, N. J.—The Boards of Chosen Freeholders of Passaic and Morris Counties have awarded the contract for the construction of a bridge between Bloomingdale and Butler on the county line, to the LOGAN CONSTRUCTION CO., 11 Broadway, New York, N. Y., at $7258. Noted Apr. 22.

Camden, N. J.—It is reported that the Pennsylvania R.R. plans to replace its present wooden bridge at 27th St., Camden, with a new reinforced-concrete structure. A. C. Shand, Philadelphia, is Ch. Engr.

★New Gretna, N. J.—(Official)—Bids were received June 9 by the Boards of Chosen Freeholders of Atlantic and Burlington Counties for the construction of a bridge over the Mullica River at Chestnut Neck near New Gretna as follows: Snare & Triest, New York, $83,700; E. L. Bader, Atlantic City, $100,750; Long-Broadhurst Co., Hackensack, $103,343; Penn Bridge Co., Beaver Falls, Penn., $104,000; Lupfer & Remick, Buffalo, N. Y., $79,800; Bridgeton Construction Co., Bridgeton, $109,040; Kelly-McFeeley Co., Camden, $92,000; R. L. Ingersoll, $146,000. The only bid for repairing the old Mullica River Bridge was that of the Kelly-McFeely Co. at $55,000. James Logan, Mt. Holly, is Engr. of Burlington County. Noted May 20.

✚★New Gretna, N. J.—(Official)—The contract for the Mullica River Bridge near New Gretna has been awarded to LUPFER & REMICK, Buffalo, N. Y., at $79,800. See preceding item.

Pine Brook, N. J.—(Official)—Bids will be received until 11:30 a.m., June 28, by the Boards of Chosen Freeholders of Morris and Essex Counties at the Courthouse, Morristown, for rebuilding the bridge over the Passaic River at Pine Brook between the two counties. William E. King, Morristown, is Engr. of Morris County. F. A. Reimer, Newark, is Engr. of Essex County. Noted Nov. 12, 1914.

Trenton, N. J.—The Board of Chosen Freeholders of Mercer County has instructed Theodore Tobish, County Engr., to prepare plans for widening the bridge at Stony Brook on the Trenton-Lawrenceville Rd.

Allentown, Penn.—Bids will be received until 10 a.m., June 28, by Cyrus J. Dilcher, Controller of Lehigh County, for bridge work and repairs. H. C. Weinert is Clk. of County Comrs.

Norristown, Penn.—(Official)—Plans and specifications will be received until noon, June 21, by the Commissioners of Montgomery and Chester Counties for a steel girder and concrete inter-county bridge over the Schuylkill River between Phœnixville and Mont Clare. One hundred dollars will be paid for the plans accepted. John N. Jacobs is Controller of Montgomery County. Isaac Y. Ash is Controller of Chester County. Noted May 20 under Mont Clare, Penn.

Williamsport, Penn.—Bids will be received until noon, June 25, by the Board of Commissioners of Lycoming County for the construction of five stone arches, from 10 to 24 ft. long, three reinforced-concrete bridges, 24- to 40-ft. spans, and for placing steel floor beams and joists and new floor on a 287-ft. bridge. A. P. Zuber is Clk. of Comrs.

✚Suffolk, Va.—The Commissioners of Nansemond County have awarded the contract for the construction of a steel bridge across the Nansemond River to the VIRGINIA BRIDGE & IRON CO., Roanoke, at about $9000. Noted Apr. 15.

Huntington, W. Va.—It is reported that the Chamber of Commerce has appointed a committee to make plans for the construction of a $475,000 bridge across the Ohio River at Huntington. Cabell County, W. Va., and Lawrence County, Ohio, will each pay a portion of the cost. C. P. Snow is Pres. Chamber of Commerce.

✚Marlinton, W. Va.—The County Court of Pocahontas County has awarded the contract for the construction of a concrete bridge across the Greenbrier River at Marlinton to the LUTEN BRIDGE CO., Clarksburg, at about $15,000. It will be a four-span structure.

Williamson, W. Va.—Bids will be received until June 26 by the City Council of Williamson and the Fiscal Court of Pike

County, Pikeville, Ky., for the construction of a bridge across the Tug River. John S. Hall, Williamson, is City Recdr. H. H. Stallards, Pikeville, Ky., is County Judge.

✚Bryson City, N. C.—(Official)—The "Swain Highway Commission" has awarded the contract for a 300-ft. bridge across the Tuckaseigee River to the C. W. REQUATH CO., Charlotte, N. Y., at approximately $9000. Noted erroneously **June 3 as** Bryson City, N. Y.

✚★Rome, Ga.—(Official)—The Board of Commissioners of Roads and Revenue of Floyd County on June 8 awarded contracts to the HARDAWAY CONTRACTING CO., Columbus, Ga., at $87,000 for the construction of a steel bridge with vertical lift span, and to the HACKEDORN CONTRACTING CO., Indianapolis, Ind., at $123,000 for two concrete bridges of three arches each. Each arch will be about 90 ft. long. Kieffer Lindsey is County Engr. Noted Apr. 29.

Sandersville, Ga.—The Boards of Commissioners of Washington and Wilkinson Counties contemplate the construction of a bridge across the Oconee River between the two counties. The estimated cost is $25,000.

✚Lacombe, La.—(Official)—The Board of State Highway Commissioners has awarded the contract for the construction of a steel swing bridge over Bayou Lacombe near Lacombe, St. Tammany Parish, to the VINCENNES BRIDGE CO., Vincennes, Ind., at $8132. Other bidders were: Blodgett Construction Co., Shreveport, $9000; Midland Bridge Co., Kansas City, Mo., $11,000; Perry & Bonner, Lake Charles, $9385. Noted May 20.

Nashville, Tenn.—It is reported that the city, the Nashville, Chattanooga & St. Louis Ry. and the Nashville Ry. & Light Co. have agreed upon the construction of a reinforced-concrete viaduct over the railway tracks on Cedar St. The estimated cost, including approaches, is from $42,000 to $45,000. W. W. Southgate is City Engr. Noted Oct. 22, 1914.

✚Chesapeake, Ohio—(Official)—The Board of Commissioners of Lawrence County, Ironton, has awarded the contract for placing a new floor on the bridge over Symmes Creek at Chesapeake to the CAPITOL CONSTRUCTION CO., Columbus, at $4700. Other bidders were: Champion Bridge Co., Wilmington, Ohio, $4800, and M. F. Leonard, Huntington ,W. Va., $4900. Noted May 20.

Cincinnati, Ohio—The lowest bid received by the city for removing the old bridge and lowering the street on Sycamore St. from North Court St. to Hunt St. was that of M. F. Quill, 808 Provident Bank Bldg., at $10,917.

Cincinnati, Ohio—The city has authorized an expenditure of $50,000 for replacing all wooden bridges within the city limits with concrete structures. Part of the work has been done, but there are 12 more, costing from $1000 to $4000 each to be advertised. Frank S. Krug is City Engr.

Cincinnati, Ohio—(Official)—Bids will be received until noon, July 9, by the Board of Commissioners of Hamilton County for the construction of a concrete culvert in Bog Run on Strimple Rd., Whitewater Township. Albert Reinhardt is Clk. of Bd.

Cincinnati, Ohio—(Official)—Bids were received June 1 by the Board of Public Service for the construction of a 165-ft. reinforced-concrete arch over Kemper Lane at the Park Ave. entrance to Eden Park, from: D. P. Foley, $125,355; A. J. Yawger, Indianapolis, Ind., $136,294; Ohio Valley Contracting Co., $142,429; Roos Bros., $143,875; Cleary-White Construction Co. and A. J. Brehm, $148,220; N. R. Porterfield, Youngstown, $149,405; F. W. Folz & Co., $150,310; William F. Nickoson, $151,635; Ferro-Concrete Construction Co., $156,788; Runck Bros., $160,937; James Duff Construction Co., Cleveland, $167,924; L. Eid Concrete Steel Co., $170,219; Kirchner Construction Co., $179,404; Thomas P. Strack, $200,050. All bidders of Cincinnati unless otherwise noted. The Engineer's estimate was $158,000. The award of contract was withheld. Noted May 20.

✚Columbus, Ohio—(Official)—The Commissioners of Franklin County have awarded the contract for the construction of the Agler Bridge over Alum Creek in Mifflin Township to the STEWART ENGINEERING CORPORATION, 17 Battery Pl., New York, N. Y., at $89,843. It will be an 11-span reinforced-concrete structure, 1170 ft. long. Noted Apr. 8.

✚McArthur, Ohio—(Official)—The Commissioners of Vinton County have awarded the contract for the construction of a steel bridge on the McArthur-Athens Rd. to the BROOKVILLE BRIDGE CO., Brookville, Ohio. Noted June 3.

★✚Toledo, Ohio—(Official)—The Board of Control has awarded contracts for paving the Fassett St. Bridge, and for steel to strengthen the bridge, to the STANDARD ENGINEERING CO., at $40,242 and $2890, respectively. Noted Jan. 7.

Toledo, Ohio—Press reports state that the City Engineer has recommended two new bridges to be built over Swan Creek to replace the present structures which are said to be too light for the present traffic. The estimated cost is $30,000 each. Herbert McKechnie is City Engr.

Brownsville, Ind.—Bids will be received until 2 p.m., June 19, by George W. Wray, Audr. of Union County, Liberty, for the construction of an extension and approach to a bridge over the Whitewater River at Brownsville. Forrest Stout and J. E. Troyer are Engrs.

Indianapolis, Ind.—(Official)—Bids will be received until June 21 by B. T. J. Jeup, City Civil Engr., for the construction of a three-arch reinforced-concrete bridge, with facings and trimmings of Bedford stone and granite. Each arch will be 100 ft. long.

Benton Harbor, Mich.—(Official)—At a special election held June 7 the voters defeated a bond issue of $28,000 for the purpose of building a concrete bridge over Ox Creek to connect High St. and East High St. Noted June 8.

Detroit, Mich.—The City Council has decided to submit to the voters for approval a charter amendment authorizing the issue of $2,000,000 in bonds. The proceeds will be used for the construction of the proposed new Belle Isle Bridge. Richard Lindsay is City Clk. Noted May 13.

Springfield, Ill.—(Official)—Bids will be received until 11 a.m., June 23, by the State Highway Commission for the construction of one bridge each in Menard, Macoupin and Williamson Counties, and four bridges in McDonough County. The estimated total cost is $20,484.

✚De Pere, Wis.—The Common Council has awarded the contract for repairing the Main St. Bridge over the Fox River to GREILING BROS., Green Bay, at $22,000. The work includes repairing and painting the steel and repairing the roadway and sidewalks. Noted May 13.

✚Fairfield, Iowa—The State Highway Commission, Ames, has awarded the contract for the construction of a 170-ft. steel bridge and substructure at Fairfield to the JAMISON & WEST BRIDGE CO., La Fayette, Ind. Thomas H. McDonald is State Highway Engr.

✚Montezuma, Iowa—(Official)—The Board of Supervisors of Poweshiek County has awarded a contract for the construction of nine steel bridges to N. M. STARK & CO., Des Moines, at $17,693; the contract for 14 concrete bridges was awarded to the IOWA BRIDGE CO., Des Moines, at $7262. Noted May 27.

✚Onawa, Iowa—The Board of Supervisors of Monona County has awarded the contract for the construction of 28 bridges and concrete culverts to the OMAHA STRUCTURAL STEEL WORKS, Omaha, Neb., at $15,431.

✚West Union, Iowa—The Board of Supervisors of Fayette County has awarded the contract for the construction of a concrete bridge across the Turkey River to the KOSS CONSTRUCTION CO., Des Moines, at $7082. Noted May 20.

Cannon Falls, Minn.—(Official)—Bids will be received until 2 p.m., July 2, by George E. Wilson, City Clk., for the construction of two reinforced-concrete bridges. The first will have three 60-ft. spans, of the arch rib type, and the other will have two 67-ft. girder spans. The estimated cost is $25,000. Noted June 10.

✚Great Bend, Kan.—(Official)—The Board of Commissioners of Barton County has awarded the contract for the construction of four county bridges to the HEANEY CONSTRUCTION CO., Enid, Okla., at $10,045. C. F. Younkin is County Clk. Noted May 27.

Holton, Kan.—Bids will be received until noon, June 25, by the Commissioners of Jackson County for the construction of one 50-, one 60- and one 70-ft. steel bridge. W. H. Webster is Clk. of Comrs.

Lincoln, Kan.—(Official)—The Board of Commissioners of Lincoln County has awarded the contracts for the construction of two county bridges to the KANSAS CITY BRIDGE CO., Kansas City, Mo., and J. J. MOFFIT, Sr., Lincoln. Noted June 3.

St. Louis, Mo.—Bids will be received until noon, June 29, by the Board of Public Service for furnishing steel for completing the East St. Louis approach of the Municipal Free Bridge. E. R. Kinsey is Pres. of Bd. Noted Nov. 26, 1914.

Seattle, Wash.—It is reported that the City Council has appropriated $90,000 to be used for building approaches to the Salmon Bay Bridge. The work will be done by city forces. Arthur H. Dimock is City Engr.

Seattle, Wash.—Bids will be received until 10 a.m., June 28, by the Commissioners of King County for the construction of the Stossel Bridge. It will be of steel and will cost from $15,000 to $20,000. Byron Phelps is Clk. of Comrs.

Seattle, Wash.—(Official)—Bids will be received until July 23 by the Board of Public Works for the construction of two bascule bridges over Lake Washington Canal. The first one at 15th Ave., N. W., will be a 218-ft. span, estimated to cost $365,000. The other at Fremont Ave. will be 242 ft. long, and will cost about $420,000. The work will include the steel superstructures, concrete substructures, operating machinery, electrical equipment, etc. F. A. Rapp is Structural Engr. Noted June 10.

Tacoma, Wash.—The Bridge Inspector of Pierce County has reported that the Day Island Bridge is past repair, and a new bridge, estimated to cost $5750, is recommended. It is also reported that the bridge across Steilacoom Lake will be rebuilt. D. H. White is County Engr.

Tumwater, Wash.—Bids for the construction of a concrete bridge across Des Chutes River on the Pacific Highway near Tumwater, were received by the Commissioners of Thurston County, Olympia, as follows: H. C. Wright, Everett, $13,444; Charles G. Huber, Central Bldg., Seattle, $13,798; H. C. Malott, Seattle, $13,950; Yelverton & Wolf, Olympia, $14,100; G. A. Marsh, Tacoma, $14,698; Illinois Steel Co., Spokane, $14,800; W. D. Moreland, Olympia, $15,100; Huckinson Construction Co., Olympia, $15,990. Noted May 20.

Walla Walla, Wash.—The City Engineer has been instructed to call for bids for the construction of a new concrete bridge across Mill Creek at North Second St. Walter Rehorn is City Engr.

Lebanon, Ore.—It is reported that the Linn County Court, Albany, is asking bids for the construction of a 322-ft. bridge across the South Fork of the Santiam River at Lebanon. Noted May 13.

Madera, Calif.—It is reported that the City Trustees are considering the construction of a bridge over the Fresno River at D St. The estimated cost is $15,000.

Sacramento, Calif.—All bids received May 24 by the State Highway Commission for an 80-ft. plate girder bascule bridge in Yolo County were rejected as above the engineer's estimate. List of bids noted June 10.

Santa Barbara, Calif.—Bids will be received until noon, June 24, by A. Christine Holmberg, City Clk., for the construction of a reinforced-concrete bridge. The estimated cost is $20,000.

✚Watsonville, Calif.—The Board of City Trustees and the Supervisors of Monterey County have awarded the contract for the construction of a reinforced-concrete bridge over the Pajaro River at Watsonville to the FOSTER VOGT CO., Sharon Bldg., San Francisco, at $33,783. Noted May 20.

Fredericton, N. B.—It is reported that the Intercolonial Ry. is considering the erection of a new superstructure on its bridge over the St. John River. C. B. Brown, Moncton, N. B., is Ch. Engr.

Winnipeg, Man.—Plans for three new bridges at Main, Maryland and Arlington St. have been submitted to the City Council for approval. The estimated cost is $191,276 for the Main St. Bridge; $141,680 for the Maryland St. Bridge and $126,379 for the Arlington St. Bridge. Plans were drawn by Paul Schioler, former Bridge Engr. for the city, and A. A. Storington of Manitoba University.

WATER SUPPLY—IRRIGATION

✚Troy, N. H.—(Official)—The contract has been awarded to PASCHAEL RICI, Rutland, Vt., at $10,689, for constructing a water system. Other bidders were: Young & Dudley, Exeter, $18,567; Hyde & Babcock, Boston, Mass., $15,561; John E. Palmer, Boston, Mass., $13,112; G. Ferullo, Boston, Mass., $11,756; Sousi & Williams, Boston, Mass., $11,119. Noted Nov. 5 and Mar. 25.

Boston, Mass.—(Official)—Bids will be received until noon, June 18, by the Public Works Department, Room 511, City Hall Annex, for relaying water mains.

✚Shrewsbury, Mass.—(Official)—The contract has been awarded to the HANSCOM CONSTRUCTION CO., Boston, at $62,000, for constructing a water system. Romeo E. Allen is Engr. Noted Apr. 22 and May 20.

Hilton, N. Y.—(Official)—Bids will probably be received about July 6 for the construction of a water system. The estimated cost is $49,000. H. C. Kittredge, German Insurance Bldg., Rochester, is Engr. Noted Apr. 8 and June 10.

Ilion, N. Y.—Bids will be received about June 20 by the Water Commissioners for laying 3½ miles of 10-in. c.-i. pipe, constructing a reinforced-concrete reservoir and a slow sand filtration plant. Charles C. Hopkins, Cutler Bldg., Rochester, is Engr. and J. D. Ringwood is City Engr. The estimated cost is $76,500. Noted Dec. 10 and May 6.

Le Roy, N. Y.—Bids will be received until June 25 by the Board of Water and Light Commissioners for constructing a dam, a filtration plant and for laying pipe. John Maloney is Pres. of Comrs. and James P. Wells, Exchange Pl. Bldg., Rochester, is Engr. Noted Feb. 25 and Mar. 25.

Manchester, N. Y.—Press reports state that bids will soon be received for the construction of a water system. Charles C. Hopkins, Cutler Bldg., Rochester, is Engr. The estimated cost is $33,000. Noted Oct. 15 and May 27.

Oakfield, N. Y.—(Official)—Bids will be received until June 24 by the Board of Village Trustees for constructing a water system. S. A. Ingalsbe is Village Clk. Noted Apr. 1 and 8.

Oneida, N. Y.—The site of the new dam to be constructed on Florence Creek has been approved by the Water Commissioners. Henry White is Supt. of Water-Wks. Noted Feb. 25.

Belleville, N. J.—The Board of Commissioners plans to issue $20,000 in bonds, the proceeds of which will be used for the extension of the water system.

Bernardsville, N. J.—The Bernards Water Co. contemplates installing a new filter system.

Butler, N. J.—The Butler Water Co. has requested permission from the State Water Supply Commission to develop the Apshawa stream for an additional water supply.

Kearney, N. J.—According to press reports the Council has entered into an agreement with the State Water Supply Commission for the construction of a joint water supply from the Wanaque River. Robert E. Torrence is Mayor.

Newark, N. J.—The City Council has adopted resolutions providing for the issuance of $200,000 in bonds. The proceeds will be used for the relaying of old water mains and the extension of the high pressure system. Alexander Archibald is City Clk.

Newark, N. J.—The Board of Works has sustained the veto of Thomas L. Raymond, Mayor, to purchase Lake Waywayanda in Sussex County for $142,500, according to press reports. Noted Apr. 29 and May 13.

Perth Amboy, N. J.—The Board of Water Commissioners plans to construct the second section of the extension of its 30-in. water main from the Runyon watershed. The estimated cost is $80,000. The construction of a new filter bed at the Runyon pumping plant is also under consideration. S. J. Mason, City Engr., is in charge.

Coatesville, Penn.—Bonds for $185,000 have been sold, the proceeds of which will be used for the construction of a water-works on Rock Run. Noted Apr. 22.

✚Gleniron, Penn.—The contract has been awarded to WALTERS, PERKES & MELLEN, Philadelphia, for the installation of a water system at the Pennsylvania Home for Feeble Minded. George S. Idell is Arch. Noted June 3.

Media, Penn.—The citizens voted in favor of issuing bonds for $70,000, the proceeds of which will be used for the improvement of the water system. Noted Sept. 3.

✚Reading, Penn.—The contract has been awarded to the READING CONTRACTING CO., at $7000, by the Reading Suburban Water Co. for constructing a slow sand filter and a storage dam. Noted June 3.

Baltimore, Md.—Specifications have been prepared by Robt. L. Clemmitt, Act. Water Engr., for the installation of an electrically operated centrifugal pump for the Eastern pumping station. The estimated cost is $25,000. Noted Apr. 29.

✚Fairmont, W. Va.—The contract has been awarded by the Board of Affairs to the UNITED STATES CAST IRON FOUNDRY CO., Pittsburgh, Penn., for 6000 ft. of c.-i. water pipe.

Warrenton, N. C.—(Official)—Bids will be received for the construction of a water system as soon as the bonds are sold. Gilbert C. White, Charlotte, is Engr. Noted Apr. 29 and June 3.

Wilmington, N. C.—The city plans to lay water mains at an estimated cost of $29,000. Thomas D. Mears is City Clk.

Orangeburg, S. C.—An election will be held June 29 to vote on the question of issuing bonds for $15,000, the proceeds of which will be used for the improvement of the water system. Edward Howes is City Engr. Noted Mar. 18.

Athens, Ga.—The City Council has authorized the extension of the water system at an estimated cost of $5000. James Barrow is Supt. of Water-Wks.

Leesburg, Ga.—The city contemplates constructing water and electric-light systems.

✚New Smyrna, Fla.—The contract has been awarded to the J. B. McCRARY CO., Atlanta, Ga., by the city for the construction of a water system. The estimated cost is $47,000. Noted Nov. 26 and Jan. 28.

Oxford, Fla.—It is proposed to dispose of the franchise to a private company for a public water system. O. S. Bogue is Mayor.

Langdale, Ala.—The Park A. Davis Co., Atlanta, Ga., has prepared plans for the construction of a water system for the West Point Mfg. Co.

✚Northport, Ala.—The contract has been awarded to B. T. ROBERTS, Macon, Ga., by the city for constructing a water system. C. P. Bell is Mayor. Noted Apr. 22 and May 27.

Gretna, La.—The city contemplates either purchasing the water-works of the Algiers Water Co. or constructing a water system. The estimated cost of either, complete, is about $70,000. Anderson Offutt, New Orleans, is Engr.

Henderson, Tenn.—Bonds for $57,000 have been voted by the citizens, the proceeds of which will be used for the construction of water and sewer systems and an electric-light system. Noted Apr. 22.

Springfield, Tenn.—Extensions will be made to the plant of the Springfield Water & Light Co. The estimated cost is $15,000.

Lexington, Ky.—(Official)—The Lexington Hydraulic Mfg. Co. will lay water mains by its own forces. W. F. Cramer is Ch. Engr. Noted June 10.

Cincinnati, Ohio—Bids will be received until June 18 by the Director of Public Safety for laying water mains and specials for the high pressure fire system in Eighth St., Broadway and Reading Rd.

Cleveland, Ohio—Bids will be received until noon, June 23, by the Commissioner of Purchases and Supplies, for furnishing brass fittings and stop cock boxes for the water department.

✚Cleveland, Ohio—The contract has been awarded to the BUILDERS IRON FOUNDRY, Providence, R. I., at $9993, for furnishing one 30-in. and five 48-in. venturi meters for the Division Ave. pumping station.

★Rittman, Ohio—(Official)—Bids will be received until 1 p.m., June 29, by Vance Hickin, City Clk., for constructing a water-works system. The work consists of a pumping station, a 200,000-gal. reinforced-concrete reservoir and about eight miles of water mains.

★Rittman, Ohio—(Official)—Bids will be received until 1 p.m., June 29, by Vance Hickin, City Clk., for pumping equipment for the water-works.

Springfield, Ohio—The Council has authorized the construction of a trunk line water main from the pumping plant to the city. William H. Mahoney is City Clk.

Detroit, Mich.—Bids will be received until 2:30 p.m., June 21, by George J. Finn, Secy., Fire Comrs., for furnishing pipe for the new pipe line.

Saginaw, Mich.—Another election will be held in September to vote on the question of issuing $700,000 in bonds, the proceeds of which will be used for the construction of a water softening plant and filtration system. Herman H. Eymer is City Engr. Noted Apr. 1.

Janesville, Wis.—Bids will be received until June 25 by the Municipal Water-Works Commission, for the construction of a one-story brick addition to the pumping station. The estimated cost is $4500. Equipment will also be needed. Noted Feb. 11.

✚Cresco, Iowa—The contract has been awarded to the MEMPHIS STEEL CONSTRUCTION CO., Memphis, Tenn., at $4603, for constructing a 100,000-gal. steel tank on a steel tower. M. J. McArthur is City Clk.

Newton, Iowa—Plans are being prepared for the construction of a purification plant. Bruce, Standeven & Boynton, Bee Bldg., Omaha, Neb., is Engr.

✚Spillville, Iowa—(Official)—The contract has been awarded to the DES MOINES BRIDGE & IRON WORKS, at $7469, for constructing a water system. Other bidders were: C. L. Hansen, $7290; W. C. Fraser, $7320; Moore Sieg Construction Co., $7492; W. L. Lovell, $7500; Alamo Engineering & Supply Co., $7530. A. A. Novak is Town Clk. Noted May 20.

Moorhead, Minn.—Plans are being prepared for the construction of a water system. E. P. Burch, Plymouth Bldg., Minneapolis, is Engr. The estimated cost is $22,000.

Robbinsdale, Minn.—(Official)—The village has decided to construct a municipal water system which will consist of a power plant, a 100,000-gal. steel tank and steel tower and between 5000 and 10,000 ft. of water mains. W. C. Buck, 4821 Fremont St., S., Minneapolis, is Engr. Noted June 10.

✚Garnett, Kan.—The contract has been awarded by the Council to the MERKLE-HINES MACHINE CO., Kansas City, Mo., at $8925, for an engine, boiler and generator for the water-works. Noted May 20.

Oakley, Kan.—Bonds for $10,000 have been voted by the citizens, the proceeds of which will be used for the construction of water and electric-light systems.

Osawatomie, Kan.—The State Board of Health has authorized the construction of a filtration plant at the State asylum at Osawatimie.

Sabetha, Kan.—An election will be held June 29 to vote on the question of issuing $65,000 in bonds, the proceeds of which will be used for the construction of a water system. Worley & Black, Reliance Bldg., Kansas City, Mo., is Engr.

Fargo, N. D.—The Water and Light Commission contemplates making improvements to the water system from plans prepared by Edward P. Burch, Minneapolis, Minn. The estimated cost is $24,000.

Billings, Mont.—Plans are being prepared for the convertion of Lake Hollings into a reservoir by the Billings Land & Irrigation Co.

✚Caruthersville, Mo.—(Official)—The contract has been awarded to MONIE & DUNBAR, St. Louis, at $8500, for making extensions to the water system. W. D. Byrd is Mayor. Noted May 6 and 20.

✚Joplin, Mo.—The contract has been awarded to SUGAR & CO., St. Louis, at $5400, by the city for laying water mains. Noted Jan. 21.

St. Louis, Mo.—Bids will be received until noon, June 22, by the Board of Public Service for furnishing 2595 tons of 3- to 36-in. c.-i. pipe, 350 tons of specials, 297 stop and tapping valves and 850 fire hydrants. W. T. Findley is Secy.

Slaton, Tex.—(Official)—The date has not yet been set for the sale of bonds, the proceeds of which will be used for construction of a water system. C. C. Hoffman is Secy.-Treas. Noted Apr. 15 and June 3.

Salt Lake City, Utah—Plans prepared by Sylvester Q. Cannon, City Engr., for the construction of a storage reservoir in City Creek Cañon at Pleasant Valley, have been approved by the City Commission. The estimated cost is $20,000. It is stated that bids will soon be received.

Everett, Wash.—An election will be held in July to vote on the question of issuing $650,000 in bonds, the proceeds of which will be used for the construction of additions and improvements of the water system. Louis Lesh is City Clk. R. E. Koon, Burns & McDonnell, Kansas City, Mo., is Engr. Noted Dec. 10 and Apr. 22.

✚Kirkland, Wash.—(Official)—The contract has been awarded to J. ERICKSON, 5815 Woodlawn Ave., Seattle, at $4995, for constructing a water system. Noted Dec. 10 and Apr. 8.

Poulsbo, Wash.—The Council contemplates constructing a water system. B. S. Murley is City Clk.

Seattle, Wash.—The City Utilities Committee of the Council has recommended an appropriation of $16,000 for the improvement of the timber dam at the Cedar River intake. Noted Apr. 22.

Hesperia, Calif.—The Hesperia Water Co. has been granted a 50 year franchise to construct and operate a water system.

Oakdale, Calif.—According to press reports bids will be received in July by the Oakdale Irrigation District for the construction of lateral canals. Noted Apr. 29.

Owensmouth, Calif.—The plant of the Owensmouth Domestic Water Co. was destroyed by fire with a loss of $15,000.

Victorville, Calif.—A franchise for a period of 50 years has been granted to the Appleton Land, Water & Power Co. to construct and operate a water system in Victorville.

Beauceville, Que.—The Council plans to construct water and electric-light systems. The estimated cost is $85,000. F. Fortin is City Clk. and J. Mignault, Sherbrooke, is Engr.

Montreal, Que.—Press reports state that a filtration plant, estimated to cost $159,500, will be constructed. L. N. Senecal is Secy., Bd. of Comrs. Noted Mar. 4.

✚Ottawa, Ont.—(Official)—The contract has been awarded to the HEAPAND PARTNERS, Montreal, Que., at $5100, for furnishing and installing one electrically operated pumping unit for the water system. T. B. Rankin is Secy. Water-Wks. Comn. Noted Apr. 22.

✚★Stratford, Ont. — (Official)—The contract has been awarded to BRENNAN & HOLLINGSWORTH, Hamilton, at $25,891, for constructing water mains and a tower. Other bidders were: Municipal Concrete Construction Co., $31,176; F. O. Canfield, $29,316; Smallman & Webster, $37,875; A. L. McAllister, $27,519; B. Blair Co., $26,752. Noted May 13 and June 3.

SEWERS

Portland, Maine—The city contemplates extending the Washington Ave. sewer to Allen Corner, and constructing sewers in North Deering. The estimated cost is $18,000.

Boston, Mass.—Bids will be received until noon, June 22, by P. O'Hearn, Act. Comr. of Pub. Wks., for the construction of sewers and drains in Kenney and Hamblen St.

Boston, Mass.—Bids will be received until noon, June 21, by P. O'Hearn, Act. Comr. of Pub. Wks., for the construction of sewers and drains in Boylston Pl.

Woonsocket, R. I.—The city contemplates the construction of sewers in various streets estimated to cost $22,500. F. E. Holden is Chn. Sewer Comrs.

✚Albany, N. Y.—The contract for the construction of a sewer in Sausse Ave. has been awarded to JOHN ALLEN, Schenectady, at $5900.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 10:30 a.m., June 24, by Douglas Mathewson, Borough Pres., for the construction of sewers and appurtenances in West 236th St. from Broadway to the westerly line of the right of way of the New York & Putnam R.R.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received until 11 a.m., June 23, by L. H. Pounds, Borough Pres., for the installation of heating equipment at the sewage pumping station at Ave. V and West 10th St.

New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received until June 23 by Maurice E. Connolly, Borough Pres., for the construction of a sewer and appurtenances in Polk Ave., Second Ward, and in Steinway Ave., First Ward.

New York, N. Y.—(Borough of Richmond)—The construction of a sewage-disposal plant at the Richmond County Jail at West New Brighton, is under consideration. The estimated cost is $5300.

✚Niagara Falls, N. Y.—The contract for the construction of sewers in Divers St. has been awarded to DOMINIC SPAGONE, at $75,000. Noted May 6.

★Scarsdale, N. Y.—(Official)—Bids will be received until 8 p.m., June 22, by the Sewer Commissioners for the construction of sewer extensions. Noted Feb. 25.

Syracuse, N. Y.—(Official)—Bids will be received about Sept. 1 by the city for the construction of approximately five miles of sewers in the 17th Ward. W. T. Wooley is City Engr. The estimated cost is $140,000. Noted June 3.

Camden, N. J.—The city contemplates the construction of a sewage-disposal plant. The estimated cost is $10,000.

Newark, N. J.—Bids will be received until 3:30 p.m., June 24, by Morris R. Sherrerd, Ch. Engr., Bd. of St. and Water Comrs., for the construction of sewers in Parker St.

✚Beaver Falls, Penn.—(Official)—The contract for the construction of a sewage-disposal plant, an outfall sewer and for the completion of a sanitary sewer system has been awarded to PIHL & MILLER, Pittsburgh. The estimated cost is $40,000. Noted June 10.

Erie, Penn.—The city contemplates the construction of a sewer system estimated to cost $22,500.

✚Reading, Penn.—The contract for the construction of a sewer in Exeter St. has been awarded to FEHR & O'ROURKE, Reading, at $4700.

South Connellsville, Penn.—An election will be held July 14 to vote on the question of issuing $30,000 in bonds, the proceeds of which will be used for the construction of a sewer system.

✚Wilkes-Barre, Penn.—The contract for the construction of the East End sewer in Pennsylvania Ave. has been awarded to D. M. ROSSER, Kingston, at $47,586. Noted June 3.

York, Penn.—The City Council will issue $160,000 in bonds, the proceeds of which will be used for the completion of the sewer system and for the construction of storm sewers.

Baltimore, Md.—The lowest bid submitted for the construction of sanitary lateral sewers under Contract No. 155 was that of Smith & Ruggles, Baltimore.

✚Baltimore, Md.—The contract for the construction of sewers in Patterson Park and Ferry Point has been awarded to A. T. CAROZZA CO., at $114,452.

✚Baltimore, Md.—The contract has been awarded to RYAN & REILLY CO., Baltimore, at $38,401, for the construction of sanitary sewers in the northwestern section of the city.

Winston-Salem, N. C.—Bids will be received June 30 instead of June 15 by the city for the construction of a reinforced-concrete sewage-disposal plant and extending the sewers about 2½ miles. J. L. Ludlow is Engr. and L. F. Owen is Chn. of Sewer Com. Noted June 10.

Florence, S. C.—An election will be held June 30 to vote on the question of issuing $140,000 in bonds, the proceeds of which will be used for the construction of a sewer system W. R. Barringer is Mayor.

Greensboro, Ga.—An election will be held July 3 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for the construction of sewers and repairing bridges.

✚New Smyrna, Fla.—The contract for the construction of a sewer system and water-works has been awarded to the J. B. McCRARY, CO., Atlanta, Ga., at $75,000. Noted Jan. 28.

Ocala, Fla.—Bids will be received until 3 p.m., June 26, by E. J. Cook, Secy. Bd. of Bond Trustees, for the sale of $100,000 in bonds. The proceeds will be used for the construction of a sewer system. Noted Nov. 12.

✚Northport, Ala.—The contract for the construction of 3000 ft. of 10-in. and 3700 ft. of 8-in. terra-cotta pipe sewers has been awarded to WORSEY FINNELL, Tuscaloosa.

Henderson, Tenn.—At a recent election the citizens voted to issue $57,000 in bonds. Part of the proceeds will be used for the construction of a sewer system.

Knoxville, Tenn.—The contract will soon be awarded by the City Commissioners for the construction of lateral sewers. The estimated cost is $20,000.

Lexington, Ky.—An election will be held early in November to vote on the question of issuing $200,000 in bonds, the proceeds of which will be used for the construction of a sewer system and a sewage-disposal plant. J. Ernest Cassidy is Mayor.

Brewster, Ohio—Bids will be received until noon, July 2, by the City Clerk for the construction of sewers. W. J. Sherman, 615 Nasby Bldg., Toledo, is Engr.

Canton, Ohio—Bids will be received until noon, June 23, by Z. W. Kent, Dir. of Pub. Wks., for the construction of sanitary sewers.

Canton, Ohio—The city contemplates the construction of an intercepting sanitary sewer along the East Creek. The estimated cost is $103,000.

Cincinnati, Ohio—Bids will be received until noon, June 18, by Philip Fosdick, Dir. of Pub. Ser., for the construction of sewers under Contract No. 3 in the Madisonville Sewer District.

Cincinnati, Ohio—Bids will be received until noon, June 24, by the city for the sale of $1,000,000 in bonds. The proceeds will be used for the construction of the Mill Creek trunk sewer and other sewers.

Cleveland, Ohio—Bids will be received until noon, June 24, by the Commissioner of Purchase and Supplies for the construction of sewers in various streets.

Columbus, Ohio—Bids will be received until noon, June 29, by George A. Borden, Dir. of Pub. Ser., for sewer construction.

✚Findlay, Ohio—(Official)—The contract for the construction of the Hagerman Run Conduit has been awarded to S. RENICK, Findlay, at $20,635. Noted June 10.

Indianapolis, Ind.—(Official)—Bids will be received until June 25 by Charles A. Brown, Asst. Engr., Sewer Dept., for the construction of the main drain in 38th St. and Central Ave.

✚Bessemer, Mich.—The contract for the construction of a sewer in Main St. has been awarded to J. W. OXHAM & SON, at $5670.

Chicago, Ill.—Bids will be received until 2 p.m., June 18, by the Board of Inspectors of the House of Correction for sewer pipe during the quarter beginning July 1.

East St. Louis, Ill.—Bids will be received until 2 p.m., July 7, by G. L. Tarlton, Pres. Bd. of Trustees, for the construction of an outlet sewer protection at Station No. 866 of Construction Project No. 7, Section B of Section 6, front levee.

✚Baraboo, Wis.—The contract for sewer construction has been awarded to SWEENEY BROS. The estimated cost is $13,000.

✚New London, Wis.—The contract for sewer construction has been awarded to A. C. SCHREITER, Manitowoc, at $8500.

Racine, Wis.—All bids received for the construction of a sewer in 12th St. from West Blvd. to Lathrop St. have been rejected. New bids will soon be received by the Board of Public Works.

✚Superior, Wis.—The contract for the construction of a sewer in Water St. has been awarded to EDWARD JOHNSON, at $10,346.

Waupaca, Wis.—Bids will be received until 4 p.m., June 26, by the Board of Public Works for the construction of sewers, manholes and connections in South Main St.

Ft. Dodge, Iowa—Bids will be received until 9 a.m., June 21, by W. L. Tang, City Clk., for the construction of sanitary and storm sewers in various sections of the city.

✚Hartley, Iowa—The contract for the construction of a sewer system has been awarded to ARTHUR A. DOBSON CO., Lincoln, Neb. The estimated cost is $35,000. Noted May 13.

Duluth, Minn.—Bids will be received until 10 a.m., June 18, by the Commissioner of Public Works for materials for sewer construction.

Minneapolis, Minn.—Bonds for $100,000 have been sold. The proceeds will be used for the construction of the main line sewer. Noted Feb. 17.

Minneapolis, Minn.—The Sewer Commission is planning to construct sewers in Colfax Ave. and Second St.

St. Paul, Minn.—Bids will be received until 10:30 a.m., June 21, by August Hohenstein, Pur. Agt., for the construction of sewers in various streets.

Neodesha, Kan.—The State Board of Health has instructed the city to construct a sewage-disposal plant to care for the sewerage which is now emptying into the Verdigris River.

✚Omaha, Neb.—According to press reports the contract for the construction of sanitary sewers through Miller Park has been awarded to J. J. HANIGHEN, at $53,495. Noted June 10.

Flandreau, S. D.—The city contemplates issuing $4000 in bonds, the proceeds of which will be used for the construction of storm sewers.

✚Anaconda, Mont.—It is reported that the contract for sewer construction has been awarded to the CLIFTON APPLEGATE CO. The estimated cost is $67,350.

✚Bozeman, Mont.—The contract for sewer construction has been awarded to the WARREN CONSTRUCTION CO., Portland, Ore. Noted May 13.

✚Caruthersville, Mo.—The contract for the construction of a sewer system has been awarded to A. C. BROWN, Herrin, Ill. Noted May 20.

Fayette, Mo.—Plans are being prepared by Rollins & Westover, Engr., Kansas City, for the construction of a sewer system.

Kansas City, Mo.—Bonds for $500,000 have been voted, the proceeds of which will be used for the construction of the Blue Valley sewer. Noted Apr. 22.

Kansas City, Mo.—At a recent election the citizens voted to issue $400,000 in bonds, the proceeds of which will be used for the construction of sewers. Noted May 6.

Springfield, Mo.—At a recent election the citizens defeated the question of issuing $50,000 in bonds. The proceeds was to have been used for the construction of sewers and repairs to the old sewers. Noted May 27.

St. Louis, Mo.—Bids will be received until noon, June 18, by the Board of Public Service for the construction of 10,070 ft. of 12- to 36-in. sewers in the Rock Creek Sewer District. William T. Findly is Secy. Bd. Pub. Ser.

✚Argenta, Ark.—The contract for the construction of sanitary sewers in the east section in Sewer Improvement District No. 1 has been awarded to MORENO, BROOKS & BURKHAM, St. Louis, Mo., at $10,000.

Beeville, Tex.—An election will soon be held to vote on the question of issuing $15,000 in bonds, the proceeds of which will be used for extending the sewer system 25,670 ft. W. Ranney, San Antonio, is Consult. Engr.

✚Cleburne, Tex.—(Official)—Bids were received June 4 by Charles Wilhite, City Secy., for the construction of a sanitary sewer system and a sewage-disposal plant as follows: HAMILTON BROS., Houston, at $144,527, (awarded contract); Brown Bros., Kansas City, Mo., $148,818; Bash & Janes, Joplin, Mo., $151,187; William F. Riley, St. Louis, Mo., $152,468; Roach Manigan, Ft. Worth, $155,296; James A. Pringle, Carthage, Mo., $155,328; Henry Rees, Quincy, Ill., $156,408; George O. White & Co., Memphis, Tenn., $156,832; Tonkawa Construction Co., Kansas City, Mo., $156,833; Edgar Main, Liberty, Mo., $158,450; J. R. Southerlin Construction Co., Kansas City, Mo., $159,034; Intermountain Bridge & Construction Co., Tecumseh, Neb., $162,965; H. C. Gass, San Antonia, $166,409; Winslett Eldridge Co., Dallas, $167,916; Bailey Reeder Co., Mobile, Ala., $183,509; Koehler-Fowler Construction Co., Memphis, Tenn., $191,354; V. M. Washem & Co., Waco, $204,983; H. K. McCullum, Ft. Worth, $238,756; McKenzie Construction Co., San Antonio, $240,857. Noted May 20.

Dallas, Tex.—The city contemplates the construction of extensions to the sewer system. The estimated cost is $38,000.

✚San Antonio, Tex.—The contract for the construction of a sewage-pumping station has been awarded to the McKENSIE CONSTRUCTION CO., at $5865. Noted Apr. 15.

✚San Antonio, Tex.—The contract for the construction of sewers in the Fair Grounds District has been awarded to H. C. GASS, at $19,775.

Tulsa, Okla.—An election will be held June 18 to vote the question of issuing $100,000 in bonds, the proceeds which will be used for the construction of storm and sanita sewers. T. C. Hughes is City Engr. Noted June 10.

✚Ogden, Utah—Contracts have been awarded for the co struction of sewers in District No. 125 to CHARLES E. REE Salt Lake City, and in Districts No. 126 and 127 to MULLI & PALM, Salt Lake City.

Salt Lake City, Utah—The contract will soon be awarde for the construction of vitrified and concrete 8- to 15-in. pip sewers in Sewer Extension No. 351. The estimated cost $33,381.

Elko, Nev.—The city contemplates the construction of sewer system. The estimated cost is $30,000.

Mesa, Ariz.—(Official)—Bids will be received until 10 a.m., June 30, by the Common Council, Town of Mesa City, for the sale of $75,000 in bonds. The proceeds will be used for the construction of a sewer system and a sewage-disposal plant. Harry Hancock, Phœnix, is City Engr.

La Grande, Ore.—The city contemplates the construction of sewers between G and L. St. and a disposal tank.

Arlington, Calif.—(Riverside post office)—(Official)—At a recent election the citizens defeated the question of issuing $30,000 in bonds. The proceeds was to have been used for the construction of sewer system. Noted May 13.

Los Angeles, Calif.—The lowest bid submitted for the construction of sewers in Washington St. from Grenshaw Blvd. to Fifth Ave. and other streets was that of Adam Dalmatin, at $10,460.

✚San Francisco, Calif.—The Board of Public Works has awarded the contract for the construction of a sewer in lower Fifth St. to EDWARD MALLEY, at $59,400. Noted Apr. 29.

East Oxford, Ont.—The city will construct 12,000 ft. of tile drain and 3300 ft. of open drain. F. G. Jackson is Clk.

London, Ont.—The city will construct a sewer system in Lorne Heights. The estimated cost is $72,000. S. Baker is City Clk.

✚Mille Roches, Ont.—(Official)—The contract for the construction of the Shaner Creek drain has been awarded to J. A. VALADE, Harrisons Corners, at $6871. Other bids were: J. W. Arbuthnot, $8796; D. McRae, $7032; J. H. Quinn, $7883; H. C. McLean, $7539; A. Van Buren, $7360. Noted May 20.

Toronto, Ont.—Bids will be received until noon, June 22, by T. L. Church, Chn. Bd. of Control, for the construction of sewers in Weston Rd. from St. Clair St. to the north city limits.

Welland, Ont.—The city contemplates the construction of sewers in Fell and Sophia St. D. G. Black is Engr.

GARBAGE

Worcester, Mass.—The city will construct an offal disposal plant outside of the city limits.

Newark, N. J.—The Board of Freeholders contemplates installing an incinerator at the Soho Isolation Hospital.

West New York, N. Y.—(Official)—Bids will be received until 8 p.m., June 22, by James L. Wolfe, Town Clk., for the removal of garbage.

Victoria, Tex.—The Council has recommended the installation of a Decarie incinerator. The estimated cost is $7000.

Welland, Ont.—The citizens contemplate constructing an incinerator at an estimated cost of $6000.

STREETS AND ROADS

Boston, Mass.—Bids will be received until June 22 by the Transit Commission for laying 9000 sq.yd. of wood block pavement on Boylston St. E. S. Davis, 15 Beacon St., is Ch. Engr.

Boston, Mass.—(Official)—Bids will be received until noon, June 18, by the Commissioner of Public Works for laying artificial stone sidewalks in West Broadway from Dorchester Ave. to Dorchester St., South Boston.

Boston, Mass.—Bids will be received until noon, June 21, by the Commissioner of Public Works for paving Claxton St. from Blue Hill Ave. to Callender St., Dorchester District.

✚Hartford, Conn.—Contracts for state road work, bids for which were received June 1, have been awarded by the State Highway Commission as follows:

Andover Township, about 7300 lin.ft. native stone macadam on the Hebron Rd., to ARCHIE B. CADWELL, New Britain Conn., at approximately $7669.

Somers Township, about 3198 lin.ft. native stone macadam on the Stafford Rd., to the A. D. BRIDGE'S SON, INC., Hazardville, Conn., at $5033.

Milford Township, about 12,015 lin.ft. bituminous macadam surfacing on the New Haven Turnpike, to ROBERT D. DALEY CO., New Haven, at approximately $18,500.

Hartford City, about 6895 lin.ft. reinforced concrete on Maple Ave. to LEONARDO SUZIO, Meriden, at approximately $19,500. Noted May 20 and June 10.

✚Waterbury, Conn.—The contract for paving Canal St. has been awarded to ALTIERIA BROS., at $6817.

✚★Albany, N. Y.—(Official)—Contracts have been awarded for constructing roads in various counties as follows: Road No. 1279, Albany County, 3.41 miles, CURRAN CORPORATION, Middletown, Conn., $27,852; Road No. 1280, Albany County, 5.76 miles, DAVID H. CRAW, Ravenna, $56,737; Road No. 5555, Albany County, 4.20 miles, THOMAS H. KARR, Troy, $47,414; Road No. 5259-A, Cattaraugus County, 4.29 miles, JAMES ROSSNEY, Buffalo, $55,935; Road No. 5432-A, Chemung and Schuyler Counties, 8.98 miles, FORD BROS., Elmira, $89,687; Road No. 1285; Essex County, 3.31 miles, BLUFF POINT STONE CO., Plattsburg, $29,461; Road No. 1286, Essex County, 0.52 miles, RUMPH & STEVENS, Lake Placid, $5688; Road No. 1227; Jefferson County, 4.60 miles, JAMES E. MARTIN, Utica, $56,475; Road No. 1281, Monroe County, 8.39 miles, P. H. MURRAY, Rochester, $73,892; Road No. 1282; Monroe County, 1.51 miles, MORRISON & QUINN, INC., Rochester, $17,852; Road No. 1159, Oneida County, 7.76 miles, H. B. SPROUL CONSTRUCTION CO., Peekskill, $82,-

44; Road No. 5328-B, Orange County, 6.27 miles, SCHUNNEMUNK CONSTRUCTION CO., Highland Falls, $73,445; Road No. 580, Orleans County, 2.87 miles, THOMAS HOLAHAN, Rochester, $39,878; Road No. 581, Orleans County, 7.46 miles, MICHAEL MURPHY, Rochester, $65,036; Road No. 5556, Orleans County, 0.17 miles, RHODY & CLAWSON, Albion, $2948; Road No. 1287, Oswego County, 7.75 miles, F. A. BIGGI, Brooklyn, $63,989; Road No. 1288, Oswego County, 5.12 miles, BROWNE & LOWE CO., Schenectady, $37,344; Road No. 1261, St. Lawrence County, 5.06 miles, ROSS-HALLENBECK CONSTRUCTION CO., Copenhagen, $68,770; Road No. 5474-A, Schuyler and Tompkins Counties, 7.60 miles, HENDRICKSON-McCABE CONSTRUCTION CO., Spencerport, $54,261. Noted May 20 and June 10.

✚★**Albany, N. Y.**—(Official)—Contracts have been awarded for improving roads in various counties as follows: Repair Contract No. 721, Albany County, 0.53 mile, GEORGE HOLLER, Albany, $3781; Repair Contract No. 785, Albany County, 11.21 miles, JOHN W. FLYNN, Waterford, $36,496; Repair Contract No. 726, Dutchess County, 12.88 miles, THOMAS J. MARTIN, Beacon, $9709; Repair Contract No. 701, Oswego County, 3.09 miles, DE BARBER & HILL, Fulton, $9568; Repair Contract No. 774, Rensselaer County, WILLIAM L. SHERRILL, Hudson Falls, $9999; Repair Contract No. 600, Schenectady County, 3.94 miles, BROWN & LOWE CO., Schenectady, $26,417. Noted May 20 and June 10.

✚★**Albany, N. Y.**—(Official)—Contracts have been awarded for furnishing quantities of broken stone as follows: Broken Stone Contract No. 58, Niagara County, 37.98 miles, 1400 tons, all bids were rejected; Broken Stone Contract No. 49, Seneca County, 17.32 miles, 355 tons, RICHARD HOPKINS, Troy, $753; Broken Stone Contract No. 47, Wayne County, 12.49 miles, 605 tons, RICHARD HOPKINS, $1479. Noted May 20 and June 10.

Albany, N. Y.—(Official)—Bids will be received until 3 p.m., June 21, by the Board of Contract and Supply for repaving South Pearl and Willett St. and improving Main St. and Beaver Park Rd.

✚**Buffalo, N. Y.**—The contract for paving Alsace Ave. has been awarded to the CONSTANTINE CONSTRUCTION CO., at $7130.

Elmira, N. Y.—(Official)—Bids will be received until 11 a.m., June 24, by Louis C. Andrews, City Clk., for laying 15,700 sq.yd. of brick pavement. Noted Mar. 18.

New York, N. Y.—(Borough of Bronx)—(Official)—Bids will be received until 10:30 a.m., June 24, by Douglas Mathewson, Borough Pres., for paving with granite block and sheet asphalt on concrete foundation Fordham Rd. from Webster Ave. to Harlem River Terrace and with bituminous concrete on a concrete foundation East 172d St. from Boston Rd. to Seabury Pl.

✚**New York, N. Y.**—(Borough of Bronx)—(Official)—Contracts have been awarded for paving Gouverneur Pl. from Park to Washington Ave. to the MUNICIPAL ASPHALT PAVING CO., at $9868; Morris Ave from 161st to 164th St. to the SICILIAN ASPHALT PAVING CO., at $5360. Noted May 27 and June 10.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids were received June 9 by L. H. Pounds, Borough Pres., for improving (a) East and Market Ave. from Flushing Ave. to B St., West Ave. from Flushing Ave. to D St., A and B St. from Washington to East Ave. and C and D St. from Washington to West Ave. in Wallabout Market, (b) Fulton St. from Reid Ave. to Williams Pl., (c) Gates Ave. from Franklin to Reid Ave., (d) Miller Ave. from Pitkin to Blake Ave. and Vermont St. from Blake to Dumont Ave., (e) Throop Ave. from Broadway to Gerry St., (f) Union Ave. from Roebling to North 10th St., (g) Van Brunt St. from Harrison to Irving St., (h) Washington St. from Front to Tillary St., (i) Washington St. from Tillary St. to Myrtle Ave., (j) Wythe Ave. from South Eighth St. to North 11th St., (k) Second Ave. from 43rd to 52nd St. as follows: Borough Asphalt Co., 1301 Metropolitan Ave., (a) $47,145, (f) $2888; McFarlan Contracting Co., (a) $46,832; Franklin Contracting Co., 1 Hudson St., (a) $52,520; (i) $5772; J. J. B. LaMarsh, (a) $45,952, (h) $26,774, (j) $63,518, (k) $31,139; Uvalde Asphalt Paving Co., 1 Broadway, (a) $50,584, (b) $45,825, (c) $27,336, (d) $12,478, (e) $5515, (f) $3078; Rosenthal Engineering Co., (a) $61,312, (g) $3677, (h) $24,202, (i) $61,619, (k) $28,793; Robertson Construction Co., (a) $49,586, (g) $3948, (h) $24,448, (k) $30,627; Barber Asphalt Paving Co., Woolworth Bldg., (b) $45,825, (c) $29,057, (d) $14,182, (e) $5856, (g) $2767, (i) $5910; Brooklyn Alcatraz Co., 407 Hamilton Ave., (b) $44,070, (c) $31,575, (d) $11,700, (e) $6219; Cranford Co., (b) $61,619, (c) $34,444, (d) $16,259, (e) $7217, (f) $3631; Sicilian Asphalt Paving Co., 41 Park Row, (b) $46,714, (c) $25,379, (d) $12,745, (e) $5318, (f) $3011; Lincoln Steel Co., (g) $3649, (h) $24,607, (i) $65,586; F. J. Gallagher, 490 Park Pl. (Borough of Brooklyn), (g) $3139, (h) $23,738, (j) $61,961, (k) $26,426; A. T. Maxwell, (g) $3606, (h) $25,032, (k) $29,785; J. Johnson Sons, (g) $3618, (h) $25,053, (j) $66,205, (k) $28,299; M. J. O'Hara, 557 Third St. (Borough of Brooklyn), (g) $3437, (i) $22,434, (j) $59,313, (k) $20,581, Ulrich & Co., 939 Lafayette Ave. (Borough of Brooklyn) (g) $3360, (h) $22,175, (j) $60,068, (k) $25,361; McKenna & Gallagher, (g) $3690; Norton & Gorman, (g) $3557, (j) $67,663, (k) $28,252; C. A. Myers Contracting Co., (h) $22,377, (j) $61,286, (k) $27,260; Empire Construction Co., (h) $24,300, (i) $5962, (j) $64,866, (k) $30,621; Newman & Carey, (h) $23,561; W. Farmer, (h) $23,152; J. Leapoleoñ, (i) $6481; J. J. Guinan, (j) $61,975; Matthew T. Mark, (j) $58,559, (k) $27,495; W. J. Scanlon Co., (j) $61,775, (k) $30,826; Clancey & Nuhn, 31 Hunterspoint Ave., Long Island City (Borough of Queens), (j) $58,258; Eastern Contracting Co., (k) $28,926. Noted June 3.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 11 a.m., June 21, by C. B. J. Snyder, Supt. of School Buildings, Park Ave. and 59th St., for sidewalks, yard pavements and steps at Hunter College on the westerly side of Lexington Ave. between 68th and 69th St.

✚**New York, N. Y.**—(Borough of Manhattan)—(Official)—Contracts have been awarded for improving Market St. from Cherry St. to East Broadway and Monroe St. from Pike to Market St. to the UVALDE ASPHALT PAVING CO., at $13,350; 15th St. from Ave. A to Third Ave. to the AZTEC ASPHALT CO., at $13,421; 30th St. from Eighth to Ninth Ave. to the AZTEC ASPHALT CO., at $5532; 32d St. from Second to Third Ave. to the AZTEC ASPHALT CO., at $4566; 40th St. from Second to Lexington Ave., to the AZTEC ASPHALT CO., at $7195. Noted Apr. 29 and May 20.

New York, N. Y.—(Borough of Queens)—Press reports state that a new highway will be built across Jamaica Bay to the Rockaways, shortening the present motor route by 12 miles. This highway will be a waterfront boulevard for practically its entire length of seven miles.

★**Scarsdale, N. Y.**—(Official)—Bids will be received until 2 p.m., June 29, by William Mercer, Supt. of Highways of the Town of Scarsdale, for constructing and improving certain highways and sidewalks. Jay Downer, 100 Broadway, New York, is Engr.-in-Charge.

✚**Elizabeth, N. J.**—The contract for paving Magnolia Ave. from Fifth to Trumbell St. has been awarded to SAMUEL SAMPSON, at $17,373.

Guttenburg, N. J.—The Town Council plans to pave Bergenline Ave. with trap-rock blocks. William J. Bramley is Town Clk.

✚**Harrison, N. J.**—The contract for improving Fourth St. from the Kearney line to the Jackson St. bridge by paving with bitulithic has been awarded to MAHER & McNICHOLS, at $35,170. Other bids were: Van Keuren & Son, $36,137; Northern Construction Co., $35,540; Standard Bitulithic Co., $37,970; Charles Kavanagh Co., $37,956. Noted Apr. 22.

Hoboken, N. J.—(Official)—Bids will be received until 10 a.m., June 23, by the Board of Commissioners for repaving portions of Grand, Adams and Madison St. Daniel A. Haggerty is City Clk.

Jersey City, N. J.—(Official)—Bids will be received until 2 p.m., June 24, by the City Commissioners for repaving Pavonia Ave. from Chestnut to Summit Ave. at an estimated cost of $8661. Noted June 10.

✚**New Brunswick, N. J.**—The Board of Chosen Freeholders of Middlesex County has awarded a contract for furnishing and applying asphalt binders to the county roads to MANNERING & CUMMINGS, Philadelphia, Penn.

Perth Amboy, N. J—Press reports state that the Board of Aldermen plans to improve Front St. from Market to Gordon St., by paving with concrete.

Trenton, N. J.—The Board of City Commissioners has approved an ordinance providing for an appropriation of $110,197 for paving a number of streets.

✚**West New York, N. J.**—The contract for improving 22d St. from Bergenline Ave. to the Hudson County Boulevard has been awarded to HORNUNG & BLAIR. Noted June 3.

Westville, N. J.—Press reports state that the City Council contemplates an expenditure of $50,000 for street improvements.

New Kensington, Penn.—The Borough Council contemplates issuing $100,000 in bonds, the proceeds of which will be used for paving and improving streets in the borough.

Philadelphia, Penn.—Bids will be received until June 22 by the Department of Public Works for improving a number of streets, at approximately $175,000.

Waynesburg, Penn.—Bids will be received until July 1 by the Borough Council for paving Franklin St. from Washington to Morgan St.

✚**Baltimore, Md.**—The city has awarded a contract to I. C. SMITH & CO., Richmond, Va., at $14,423, for paving Pratt St., from Howard to Light St., with new granite blocks and Sharp St. from Pleasant to Mulberry St., Bethel St. from Baltimore to Fairmont Ave., Philpot St. from Point to Thames St., Block St. from Dock to Caroline St., and Wills St. from Philpot to Dock St. with recut granite blocks.

✚**Baltimore, Md.**—The contract for paving Lombard St. from Exeter to Washington St. and Washington St. from Aliceanna to Fayette St. has been awarded to P. FLANIGAN & SONS, at approximately $29,130.

Elkins, W. Va.—Bids will be received until noon, July 1, by the City Council for paving a number of streets. George Henry is City Clk.

Oceana, W. Va.—An election will be held June 28 to vote on the question of issuing $550,000 in bonds, the proceeds of which will be used for constructing roads in Wyoming County.

Florence, S. C.—An election will be held June 30 to vote on the question of issuing $140,000 in bonds, the proceeds of which will be used for improving the streets.

Lake City, Fla.—An election will be held July 8 to vote on the question of issuing $250,000 in bonds, the proceeds of which will be used for constructing vitrified brick roads.

Manatee, Fla.—Press reports state that an election will be held June 29 to vote on the question of issuing $10,000 in bonds, the proceeds of which will be used for opening, widening and improving streets.

Selma, Ala.—Bids will be received until June 21 by the Board of Commissioners of Dallas County for grading and graveling 10 miles of the Barkersville Rd. and 3½ miles of the Blacock and Uniontown Rd.

Tuskegee, Ala.—Bids will be received until July 13 to grade, drain and gravel part of the Montgomery and Tuskegee Rd., Macon County at approximately $5000.

✚**Lake Charles, La.**—The Police Jury has awarded the contract for grading and graveling approximately two miles of road from Ryan and Alvin St. to the south end of the proposed bridge across the Calcasieu River to JOHN G. UNDERWOOD, at $12,000. Noted May 20.

New Orleans, La.—Bids will be received until 3:30 p.m., June 23, for paving roadway along the crown of the levee from Barracks St. to Esplanade Ave. with small granite blocks.

Murray, Ky.—At a recent election the question of issuing $200,000 in bonds for constructing roads was defeated. Noted Apr. 8.

✚**Akron, Ohio**—The contract for improving the Bath-Richfield Rd. has been awarded to the WINDSOR BROS. CONSTRUCTION CO., at $65,000. Noted Apr. 15.

✚**Arlington, Ohio**—The contract for paving Main St. has been awarded to the RINGWALDS SONS CO., Chillicothe, at $12,000.

Bellevue, Ohio—(Official)—Bids will be received until noon, June 17, by W. H. Grant, Dir. Pub. Ser., for paving a portion of South West St. with brick.

+Bexley, Ohio—The contract for paving Parkview and Drexel Ave. has been awarded to the TRINIDAD PAVING CO., Lakeside Ave., Cleveland, at $73,000.

Celina, Ohio—Bids will be received until 1 p.m., July 8, by J. F. Steinbrunner, Audr. of Mercer County, for the sale of $20,500, the proceeds of which will be used for improving Gerlach Rd.

Cincinnati, Ohio—(Official)—Bids will be received until noon, July 9, by the Board of County Commissioners of Hamilton County for improving Lee's Creek Rd. from Biddinger Pike to Crosby Township line, in Harrison Township.

Columbus, Ohio—(Official)—Bids will be received until noon, June 28, by George A. Borden, Dir. Pub. Ser., for improving a number of streets.

+Columbus, Ohio—The contract for improving Smoky Row Rd. in Marion Township has been awarded to the FRITZ-RUMER-COOKE-GRANT CO., Columbus, at $15,221.

+Dayton, Ohio—The contract for paving a portion of West Third St. has been awarded to W. J. KERNAN & CO., at $13,820.

Findlay, Ohio—An election will be held July 14 to vote on the question of issuing $32,000 in bonds, the proceeds of which will be used for improving about 17 streets.

+Findlay, Ohio—The contract for paving Midland Ave. has been awarded to C. B. HALL & SON, at $8786.

Lockland, Ohio—(Official)—Bids will be received until noon, July 6, by the Village Council for improving Mill St. from Wyoming Ave. to Paterson St. Ray Miley is Village Clk.

+Mt. Victory, Ohio—(Official)—The contract for laying 6500 sq.yd. of brick pavement has been awarded to BREWER, TOMLINSON & BREWER, Chillicothe, at $14,300. Smith & Boulay, Nasby Bldg., Toledo, is Engr.

Norwalk, Ohio—(Official)—Bids will be received until 10:30 a.m., June 23, by the Board of County Commissioners for improving four miles of county highway in Huron County.

Norwalk, Ohio—Bonds for $36,300 have been sold, the proceeds of which will be used for improving streets.

+Toledo, Ohio—Contracts have been awarded for paving Parkwood St. from Central to Detroit St. to RUSSELL & JENNISON, at $23,609; Cambridge St. from Georgia to Cherry St. to H. P. STREICHER CO., at $4917.

West Jefferson, Ohio—At a recent election bonds for $30,000 were voted, the proceeds of which will be used for improving a number of streets.

+Bloomington, Ind.—The contract for constructing a gravel road in Perry Township has been awarded to CAMPBELL & DOBSON, Bloomington, at $8152.

Evansville, Ind.—(Official)—Bids will be received until 10 a.m., July 1, by the Commissioners of Vanderburg County for constructing a rock road in Scott Township. C. P. Beard is County Audr.

Gary, Ind.—(Official)—Bids were received June 7 for paving a section of Mass St. with (a) macadam pavement on slag foundation, (b) macadam pavement on stone foundation, as follows: M. D. Heiny, (a) $6942, (b) $6942; C. H. Henning, (a) $7513; W. F. Brunt, (a) $7672, (b) $7752; Jacob Sensibar, (a) $7856, (b) $7773; Sela H. Smith, (a) $8222, (b) $8222; L. E. McDermutt, (a) $9011, (b) $9011.

Indianapolis, Ind.—(Official)—Bids will be received until 10 a.m., June 18, by the Board of Public Parks for improving Sutherland Ave., Fall Parkway and East Drive.

+Indianapolis, Ind.—The contract for paving East New York St. from Jefferson to Tacoma Ave. with asphalt has been awarded to the UNION ASPHALT CONSTRUCTION CO., at $10,298. Noted Apr. 22.

Noblesville, Ind.—(Official)—Bids will be received until 10 a.m., July 20, by the Commissioners of Hamilton and Marion Counties for constructing a county line road. W. O. Horton is Audr. Hamilton County.

South Bend, Ind.—Bids will be received until June 29 by the Board of Public Works for paving Allen St. with asphalt or brick. F. J. Anderson is City Engr.

Ann Arbor, Mich.—Bids were received June 2 for constructing 20,000 sq.yd. of asphaltic concrete pavement as follows: Good Roads Construction Co., Chicago, $31,170; F. G. Proudfoot, Chicago, $31,354; Globe Construction Co., Kalamazoo, $33,238. Noted May 27.

Belding, Mich.—(Official)—Smith & Boulay, Nasby Bldg., Toledo, Oho, has been retained to prepare plans for paving Main St. from Hanover to the Flat River, Bridge St. from Congress to the Pere Marquette R.R., Pleasant St. from Congress to Depot and Pearl St. from Congress to Main St.

+Detroit, Mich.—A contract for laying 140,000 sq.yd. of pavement on Grand Blvd, has been awarded to the DEPARTMENT of PUBLIC WORKS.

Enumclaw, Mich.—The City Council has voted to pave Cole St. and repave Griffin Ave.

Flint, Mich.—All bids received for paving Broadway and Lewis St. have been rejected. The work will be done by day labor. D. E. Newcombe is City Clk.

Marshall, Mich.—(Official)—The City Council has authorized Smith & Boulay, Nasby Bldg., Toledo, Ohio, Engr., to prepare plans for paving Marshall and Kalamazoo Ave. with gravel or concrete.

Brocton, Ill.—(Official)—Bids will be received until 2 p.m., June 28, by the Commissioners of Highways of Embarrass Township Edgar County for constructing combination rock and gravel roads on four highways in Embarrass Township. H. Lee Beck is Town Clk.

Glenellyn, Ill.—Press reports state that the Board of Local Improvements has decided to pave several streets with concrete at an estimated cost of $85,000.

+O'Fallon, Ill.—The contract for constructing a concrete and macadam roadbed on the Lebanon-O'Fallon Rd., which is a part of the Lincoln trail, has been awarded to the H. H. HALL CONSTRUCTION CO., East St Louis, at $16,900 a mile.

+Milwaukee, Wis.—(Official)—The contract for grading and paving three miles of Center Rd. has been awarded to the JENSEN-JENSEN CO., Chamber of Commerce Bldg., Chicago, Ill., at $22,886. Noted June 3.

Shawano, Wis.—Press reports state that bids will be received until 7 p.m., June 25, by D. E. Westcott, City Clk., for paving 9233 sq.yd. with macadam and 3763 lin. ft. combined curb and gutter.

Columbus Junction, Iowa—The City Council has voted to pave Front and Walnut St.

Sioux City, Iowa—Hanlon & Oakes, Sioux City, at $39,998, submitted the lowest bid for paving Military Rd. with concrete.

+St. Paul, Minn.—The contract for paving Lexington Ave. from Summit Ave. to Como Park has been awarded to FIELDING & SHEPLEY, at $123,900.

Beloit, Kan.—(Official)—Bids will be received until 7 p.m., June 21, by the City Clerk for constructing pavements. Worley & Black, Reliance Bldg., Kansas City, Mo., is Engr.

Wellington, Kan.—Bids will be received until June 21 by the City Clerk for paving F, G, H, Fourth and Second St. with asphaltic concrete on concrete base. J. W. Mavity is City Engr.

Fremont, Neb.—The City Council has voted to pave 2½ miles of streets.

Fairmont, Mont.—At a recent election the citizens voted in favor of issuing $60,000 in bonds, the proceeds of which will be used for improving streets.

Laurel, Mont.—Bids will soon be received for improving streets in Improvement District No. 15, at an estimated cost of $31,789. O. H. Bundy is City Clk.

Livingston, Mont.—The City Council plans to construct concrete sidewalks on Front and Sixth St., at an estimated cost of $10,000.

+Potosi, Mo.—A contract for finishing about 18,000 sq.yd. of gravel and stone roads in Potosi Special Road District has been awarded to the KNORP CONSTRUCTION CO., De Soto. Noted Jan. 4.

Newport, Ark.—Bids will be received until June 21 by the city for paving Walnut St. with concrete. Ford & McCrae, Gazette Bldg., Little Rock, is Engr.

+Sheridan, Ark.—The contract for constructing 28 miles of road in Grant County has been awarded to the COLE CONSTRUCTION CO., at approximately $103,941. Noted Apr. 8.

Karnes City, Tex.—The citizens of Karnes City District, Karnes County, voted to issue $75,000 in bonds, the proceeds of which will be used for the construction of roads. W. R. Barringer is Mayor.

+Kaufman, Tex.—A contract for paving has been awarded to SLINE, LAYDEN & DAVIS, Forney.

Tulsa, Okla.—An election will be held June 18 to vote on the question of issuing $100,000 in bonds. The proceeds will be used for the construction of a boulevard. T. C. Hughes is City Engr.

+Rigby, Idaho—The contract for constructing 12 miles of hard surfaced road in Bonneville County has been awarded to the E. L. PHELPS CONSTRUCTION CO.

+Castlerock, Wash.—A contract for paving a number of streets has been awarded to GEORGE J. ALBERS & SON, Chehalis, at $12,092.

+Everett, Wash.—The contract for constructing Permanent Highway No. 14 has been to the ATLAS CONSTRUCTION CO., at approximately $14,260.

Goldendale, Wash.—Bids will be received until 3 p.m., June 19, by the Commissioners of Klickitat County for constructing Permanent Highway No. 4. Lyman W. Ward is County Engr.

Montesano, Wash.—Bids will be received until 1:30 p.m., June 21, by W. D. Campbell, Audr. of Chehalis County, for improving Permanent Highway No. 11.

Olympia, Wash.—Bids will be received until June 28 by W. R. Roy, State Highway Comr., for grading, clearing, draining and surfacing about one mile of Pacific Highway from La Center north in Clarke County.

+Olympia, Wash.—The Washington Highway Commission has awarded contracts for highway construction as follows: Lacey-Nisqually section of Pacific Highway, to L. H. GEORIG, Seattle, at $16,377; Pacific Highway from Toledo south, to ANDREW & HONER, Portland, Ore., at $18,748; approaches to a bridge across the Mashel River on the National Park Highway, to KENDLE & APPLER, Eatonville, Wash., at $17,355.

Port Townsend, Wash.—Bids will be received until June 22 by George Anderson, City Clk., for improving a number of streets.

+Port Townsend, Wash.—The contract for constructing three miles of the Jefferson-Clallam Rd., Jefferson County has been awarded to FERCH & GASS, White Bldg., Seattle, at approximately $10,000. Noted May 27.

Seattle, Wash.—Bids were received June 1 for constructing the D. C. Mitchell Rd. as follows: Shepherd Cressman & Co., Spokane, $8330; West Coast Construction Co., Seattle, $9382; Horrocks Construction Co., Seattle, $9660; M. P. Zindorf, Seattle, $9694. Noted May 27.

Vancouver, Wash.—Bids will soon be received by the Clarke County Court for the construction of the Terry Hill Grade, near Camas; a highway extending east from Ridgefield, and a highway out of Vancouver, at an estimated cost of $35,621. Walter A. Schwartz is County Engr.

+Bakersfield, Calif.—The Commissioners of Kern County have awarded the contract to WILLIAM J. CAHILL, at $18,902, for the construction of Division 10, Section 2, of the Bakersfield-Mojave Highway.

El Centro, Calif.—Press reports state that Main St. will be paved, at an estimated cost of $145 000.

Sacramento, Calif.—(Official)—Bids were received June 1 by the State Highway Commission for constructing roads in various counties as follows: (a) Tulare County, Section A, Route 10, (b) Monterey County, Section B. Route 2, (c) Colusa County, Section C, Route 7, (d) Humboldt County, Section E, Route 1; Taylor & Berliner, Los Angeles, (a) $24,957, (c) $42,002; W. A. Dontanville, Paso Robles, (a) $20,379, (b) $20,341; George S. Benson & Sons, Los Angeles, (a) $17,629; Manuel Jacinto, Sacramento, (b) $26,250; Lou G. Hare, Salinas, (b) $22,733; C. H. & A. W. Gorrill, San Francisco, (b) $28,829, (c) $41,490; J. Fitzpatrick, Sacramento, (b) $28,890, (c) $42,722, (d) $66,765; Peterson & Grier, San Francisco, (b) $23,381; Hoffman & McLaren, Oakland, (b) $28,410, (d) $55,790; W. B. Hunt & Sons, Alameda, (c) $42,242, (d) $69,317; Commary Peterson Co., Inc., San Francisco, (c) $43,860; L. F. Gerdetz, San Francisco, (c) $40,052, (d) $54,399; Bent Bros., Los Angeles, (c) $53,488; Marin Rock Co., San Anselmo, (c) $41,548; Frank L. Smith Co., Eureka, (d) $68,607; Bates Borland & Ayer, San Francisco, (d) $55,061; A. C. McLean Construction Co., San Francisco, (d) $71,063; Twohy Bros., San Francisco, (d) $72,855; Fairbanks & Baechtel, Willits, (d) $60,375; Mercer-Fraser Co., Eureka, (d) $65,806; G. W. Conners Eureka, (d) $60,081; F. Rolandi, San Francisco, (d) $77,730; W. A. Bechtel, Alton, (d) $70,147; A. Robinson & R.R. Smith, Fortuna, (d) $65,013; Crowley, Cloney & Green, Eureka, (d) $75,772.

✚**Sacramento, Calif.**—The State Highway Commission has awarded contracts for highway construction as follows: Tehama County, from Proberta to Red Bluff, 6.5 miles, to HOFFMAN & McLAREN, Oakland, at $43,657; Humboldt County, from Jordan Creek to Rio Del, 6.9 miles, to BATES, BORLAND & AYER, Oakland, at $55,061, for the grading only; Monterey County, from Chualar to Salinas, 10.3 miles, to W. A. DONTANVILLE, Paso Robles, at $20,340. Noted June 10.

Sausalito, Calif.—(Official)—Bids were received June 7 by the Board of Trustees for constructing 4259.15 lin.ft. of (a) bituminous brick (b) vitrified brick highway as follows: Clark & Henery, Stockton, (a) $20,489, (b) $20,986; Eaton & Smith, San Francisco, (a) $21,167, (b) $22,706; Munson & Son, Stockton, (a) $21,504, (b) $22,372.

St. Adolphe, Man.—Bids will be received until noon, June 23, by C. Gauthier for grading and ditching approximately 15 miles of road.

INDUSTRIAL WORKS

✚**Waterville, Maine**—The Maine Central R.R. has awarded the contract for the construction of additional shops to the HORACE PURINTON CO.

Derry, N. H.—The Woodbury Shoe Co. will replace its factory, which was recently destroyed by fire, with a four-story, 45x200-ft. building.

✚**Boston, Mass.**—The contract for the construction of a one-story, 80x160-ft. steel storage building for the Boston Consolidated Gas Co. on Hilton St. has been awarded to the BERLIN CONSTRUCTION CO., Berlin, Conn.

Boston, Mass.—Samuel Rose, 320 Main St., Cambridge, Mass., will build a five-story, 39x99-ft., brick manufacturing building on Oxford St., to cost about $65,000. F. A. Norcross, 46 Cornhill, is Arch.

✚**Cambridge, Mass.**—The Harvard Crimson has awarded the contract to W. H. & H. A. ROOT, 1 Beacon St., Boston, Mass., for the construction of a two-story, 66x130-ft. publishing building, to cost $70,000. Jardine, Hill & Murdock, 3 West 29th St., New York, N. Y., is Arch. Noted Mar. 11 and May 6.

✚**Chicopee Falls, Mass.**—The Fisk Rubber Co. has awarded the contract to the F. T. LEY CO., for the construction of a 50x160-ft. office building, a 110x310-ft. storehouse, and a 60x100-ft. garage. The estimated cost is $400,000. George B. Allen, Hartford, Conn., is Engr. Noted June 3.

Greendale, Mass. (Worcester post office)—Bids are being received for the construction of a four-story, 80x280-ft. concrete addition to the plant of the Horton Co. Frost & Chamberlain, Slater Bldg., is Arch.

✚**Springfield, Mass.**—The W. H. Miner Chocolate Co. has awarded the contract for the construction of a five-story, 60x150-ft. brick and concrete factory on Berkshire Ave. to DANIEL O'CONNELL'S SONS CO., Holyoke, Mass. The estimated cost is $70,000.

✚**Watertown, Mass.**—The Hood Rubber Co. has awarded the contract for alterations and additions to its factory to C. A. DODGE, 240 Albany St., Cambridge, Mass. W. G. Bitterlich is Engr. Noted Feb. 11.

Bridgeport, Conn.—The Locomobile Co. of America will build a four-story, 54x104-ft. addition to its plant to cost $35,000.

Bridgeport, Conn.—The Remington Union Metallic Cartridge Co. will build a 112x368-ft., a 49x209-ft., a 48x209-ft., a 68x202-ft., a 31x84-ft., and a 30x73-ft. building, all one-story, of brick and reinforced-concrete. The estimated cost is $145,000.

✚**Hartford, Conn.**—W. F. Jones, 1084 Main St., has awarded the contract to JOSEPH CUDEMO, 3 Washington St., for the construction of a six-story, 20x105-ft. storage building, estimated to cost $15,000. George Zummer, 756 Main St., is Arch.

✚**Hartford, Conn.**—The W. C. & C. E. Walker Co. has awarded the contract for the construction of a 52x208-ft. factory at 2 South Prospect St., to THOMAS F. BROBOZON. Fred C. Walz is Arch.

✚**New Britain, Conn.**—(Official)—The North & Judd Mfg. Co. has awarded the contract to the B. H. HUBBARD CO. for the construction of a five-story, 52x146-ft. factory, and a 1½-story, 42x110-ft. addition to its plant, estimated to cost $40,000. Unclebach & Perry is Arch. Noted May 6.

Jamestown, N. Y.—The Elite Furniture Co. will build a four-story, 54x112-ft. factory. Axel E. Bloomquist is Supt.

Poughkeepsie, N. Y.—(Official)—The Fargo Mfg. Co. contemplates the construction of additions to its factory. J. J. Wells is Engr.

✚**Watertown, N. Y.**—The Winslow, Day Co. has awarded the contract for the construction of a three-story, 50x125-ft. warehouse to GEORGE A. CARD. The estimated cost is $25,000. Noted Mar. 25.

✚**Marcus Hook, Penn.**—The United Roofing Co. has awarded the contract for the construction of nine one-, two- and three-story brick factories to W. W. LINDSAY & CO., Harrison Bldg., Philadelphia, Penn. The estimated cost is $125,000. Noted June 10.

Milton, Penn.—The American Car & Foundry Co., 165 Broadway, New York, N. Y., has authorized the expenditure of $50,000 for additions to its plant. B. B. Cannon is Resident Mgr.

Philadelphia, Penn.—(Official)—Bids have been received for the construction of a three-story, 65x75-ft. garage at 21st and Brandywine St. for J. D. Darlington & Co. William Steele & Sons Co., 1600 Arch. St., is Arch. Noted June 10.

Baltimore, Md.—The Terminal Freezing & Heating Co., will construct an eight-story cold-storage plant, and a three-story addition to its present plant. Estimated cost, between $150,000 and $200,000.

Charlottesville, Va.—Rothwell & Co., Martinsburg, W. Va., plans the construction of a cold-storage plant, to cost $75,000.

Beckley, W. Va.—The Raleigh Brick & Tile Co. has been incorporated with a capital of $75,000 and will build a plant. M. C. Brackman is interested.

✚**Atlanta, Ga.**—The Exposition Cotton Mills has awarded the contract for the construction of a two-story brick building to the GRIFFIN CONSTRUCTION CO. The estimated cost is $11,000. Noted Sept. 24.

Forsyth, Ga.—The Ensign Cotton Mills will build a two-story, 75x145-ft., brick addition to its plant.

Algiers, La. (New Orleans post office)—Morgan's Louisiana & Texas R.R. Co. will begin work July 1 on the construction of shop buildings and improvements to cost over $100,000. W. B. Scott, New Orleans, La., is Pres.

✚**Akron, Ohio**—The Mechanic Mold & Machinery Co., South High St., has awarded the contract for the construction of a one-story, 76x90-ft. machine shop to D. H. BOYER & CO., 824 St. Clair St. The estimated cost is $14,000. Harpster & Bliss, Nantucket Bldg., is Arch.

Cleveland, Ohio—(Official) — Bids have been received for the construction of a building at Chester Ave., N. E., and East 30th St. for the Neighbors Motor Co., 1918 Euclid Ave. The estimated cost is $50,000. H. F. Neighbors is Pres. Knox & Elliott, 1246 Rockfir St., is Arch. Noted June 3.

✚**Cleveland, Ohio**—The contract for the construction of a five-story, 75x250-ft. factory for the F. B. Stearns Co., at Euclid Ave. and Lakeview Rd., has been awarded to C. N. GRIFFIN & CO., 3111 Carnegie Ave. Frank B. Stearns is Pres. Noted May 20.

East Liverpool, Ohio—The Columbia Sheet Metal Co., recently organized, will build a $1,000,000 plant.

Hamilton, Ohio—The American Foundry & Machine Co., Fairview and Zimmerman St., contemplates the construction of a one-story, 100x100-ft. addition to its foundry with two two-story, 45x100-ft. wings. The estimated cost is $40,000. Fred G. Mueller, 705 Rentschler Bldg., is Arch.

Lima, Ohio—The Gramm Motor Car Co., Wapak Rd., will build a one-story, 100x400-ft. addition to its factory to cost $45,000. McLaughlin & Hulsken, 610 Savings Bldg., is Arch.

Lorain, Ohio—Bids have been received by H. O. Wurmser, Arch., 627 Broadway, for the construction of a three-story, 63x104-ft. cold-storage warehouse for Schmidtkons Bros. The estimated cost is $30,000.

✚**Toledo, Ohio**—The Standard Steel Tube Co., Fitchland Ave. and Michigan Central R.R., has awarded the contract for the construction of a one-story, 110x120-ft. addition to its factory to WALLS, BOCK & KUHLMAN, 1033 South Ave. The estimated cost is $20,000.

✚**Toledo, Ohio**—The contract for the construction of a five-story, 130x140-ft. warehouse for the International Harvester Co., has been awarded to JULIUS CONITE, 666 Oswald St., at approximately $90,000. Devore & McGormley, 304 Nasby Bldg. is Engr. Noted May 6.

✚**Seymour, Ind.**—(Official)—The Seymour Woolen Mills has awarded the contract to the CONSOLIDATED CONSTRUCTION CO., Indianapolis, Ind., for the construction of an 80x160-ft. weaving shed and a 60x60-ft. dye-house, both two stories, of brick and steel construction. W. E. Russ, 1405 Merchants Bank Bldg., is Arch. Noted June 3.

✚**Detroit, Mich.**—The Packard Motor Car Co. has awarded the contract for the construction of its new plant at East Grand Blvd. and the Michigan Central R.R. to the BRYANT & DETWILER CO. Noted Apr. 22.

Detroit, Mich.—Bids have been received by Smith, Hinchman & Grylls, Arch., 710 Washington Arcade, for the construction of a five-story, 96x133-ft. foundry for John B. Corlis, 34 Canfield Ave., W.

✚**Detroit, Mich.**—The Hudson Motor Car Co., Jefferson Ave., has awarded the contract for the construction of a two-story, 60x100-ft. addition to its factory to BRYANT & DETWILER, Dime Bank Bldg. Kahn & Wilby, 58 La Fayette Ave., is Arch.

Jackson, Mich.—The Briscoe Motor Co. contemplates the construction of factories on a site recently purchased. The buildings will cover between 10 and 15 acres.

✚**Eau Claire, Wis.**—The contract for the construction of a four-story, 80x120-ft. storage plant for the Drummond Packing Co., 409 Galloway St., has been awarded to the Wisconsin Construction Co., Chippewa Falls, Wis. The estimated cost is $78,000. R. I. Davis & Co., 431 South Dearborn St., Chicago, Ill., is Arch. Noted May 27.

Milwaukee, Wis.—Bids will be received until June 20 for the construction of a two-story, 60x73-ft., reinforced-concrete and brick addition to the plant of the R. Gumz Co., Muskego Ave. and Canal St. The estimated cost is $17,000. Charles L. Lesser, 599 71st Ave., is Arch.

Superior, Wis.—The Twohy-Eimon Co., Winter St. and Bank Ave., contemplates the construction of a $100,000 cold-storage plant and warehouse. Peter Eimon is Pres.

Omaha, Neb.—The National Printing Co., 509 South 12th St. will build a six-story, 66x132-ft. printing plant. W. E. Stockham, 426 Ramge Bldg., is Arch.

Roundup, Mont.—The contract for the construction of a 25,000-bu. grain elevator for W. P. Ladd has been awarded to the GLOBE CONSTRUCTION CO., Lewistown, Mont.

Kansas City, Mo.—Plans have been revised by Madorie & Birdsall, Arch., 832 Reserve Bank Bldg., for the construction of a three-story, 50x120-ft. laundry for the Bachelor Laundry, 2028 Broadway.

St. Louis, Mo.—Bids have been received by Leonhard Haeger, Arch., 3844 Utah Pl., for the construction of a two-story dairy plant for the Pavely Dairy Co., 33rd St. & Park Ave. The estimated cost is $50,000.

✚St. Louis, Mo.—H. C. Tully, 105 North 7th St., has awarded the contract for the construction of a two-story, 103x106-ft. factory to B. BRIGADIER, 1439 North 24th St. Kennerly & Stiegemeyer, Benoist Bldg., is Arch.

El Paso, Tex.—The El Paso Ice & Refrigerator Co. plans to build an addition to its plant, to cost $12,500.

Oklahoma City, Okla.—The Alexander Drug Co. plans the construction of a five-story, 150x160-ft. warehouse on Sixth St. Estimated cost, $125,000.

Idaho Falls, Idaho—A 500-bbl. flour mill, estimated to cost $75,000 will be constructed soon by the Western Milling & Elevator Co.

Seattle, Wash.—(Official)—Bids will be received about July 1 for the construction of a four-story, 45x108-ft. reinforced-concrete building for the Puget Sound News Co. The estimated cost is $50,000. Bebb & Gould, Denny Bldg., is Arch. Noted May 13.

✚Portland, Ore.—The contract for the construction of a three-story, 100x150-ft. warehouse at 15th and Overton St. for the Mason, Ehrman Co. has been awarded to JAMES P. TAYLOR. Doyle & Patterson is Arch. **Estimated cost, $35,000.** Noted June 10.

Berkeley, Calif.—The California Cured Fruit Exchange, 417 Market St., San Francisco, Calif., will build a $28,800 warehouse.

San Fernando, Calif.—The San Fernando Lemon Association will build a two-story, 200x200-ft. reinforced-concrete and tile packing house. Herbert A. Hamm, 100 North Daisy Ave., La Manda, Calif., is Arch.

✚Vancouver, B. C.—The contract for the construction of the Terminal Grain Elevator on Salisbury Drive has been awarded to BARNETT, McQUEEN & CO., LTD., Fort William, B. C. The estimated cost is $700,000. E. D. Cassedy, Ch. Engr., Bd. of Grain Comrs., is in charge.

Ft. William, Ont.—The Western Terminal Elevator Co. will erect a reinforced-concrete mixing elevator, adjacent to its present plant, at an approximate cost of $11,000.

✚Hamilton, Ont.—The Canadian Cartridge Co., recently organized, has awarded the contract for the construction of a $30,000 factory to J. CHRISTMAN, South Bend, Ind.

✚London, Ont.—The London Advertiser Co. has awarded the contract for the construction of a reinforced-concrete printing plant to JOHN HAYMAN & SONS. The estimated cost is $50,000. T. H. Purdon is Pres.

St. Catharines, Ont.—The Lord & Burnham Co., Irvington-on-the-Hudson, N. Y., will build a $100,000 plant at St. Catharines.

FEDERAL GOVERNMENT WORK

Locomotive Crane—Boston, Mass.—Bids were received June 12 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for furnishing one locomotive crane at the Boston Navy Yard, as follows: Link-Belt Co., Chicago, Ill., $6286, $6000*; Brown Hoisting Machinery Co., Cleveland, Ohio, $6200*; Browning Co., Cleveland, Ohio, $5632; Orton & Steinbrenner Co., Chicago, Ill., $5640, $4780*; Industrial Works, Bay City, Mich., $5800*; American Hoist & Derrick Co., St. Paul, Minn., $6000*, $6250*; and McMyler Interstate Co., Bedford, Ohio, $5800*. *On bidders' specifications. Noted Jan. 28 and May 27.

Pier Repairs—Boston, Mass.—Bids were received on June 12 by the Bureau of Yards and Docks for the repairs to Pier No. 5, at the Boston Navy Yard, as follows: W. L. Miller Co., Boston, $9347; W. H. Ellis & Son Co., Boston, $11,830; C. M. Leach, Boston, $14,733; George T. Rendell Co., East Boston, $9064; Coleman Bros., Chelsea, $11,540. Noted June 3.

★Scow and Dredge—New York, N. Y.—Bids were received May 29 for constructing a scow and dredge "General Gillespie," as follows: Baltimore Drydock & Shipbuilding Co., Baltimore, Md., $150,500; Theodore Smith & Sons Co., Jersey City, N. J., $160,640; Bucyrus Co., South Milwaukee, Wis., $210,000; Ellicott Machine Corporation, Baltimore, Md., $175,250; Marion Steam Shovel Co., Marion, Ohio, $135,275, alternate $147,275, and Timothy J. Dady, Brooklyn, $172,049, alternate $173,049. Noted May 6.

Equipment—Tompkinsville, N. Y.—Bids will be received until 2 p.m., June 22, by J. T. Yates, Lighthouse Inspector, Tompkinsville, for furnishing one complete electric arc welding outfit for the general Lighthouse Depot, Tompkinsville.

✚★Sea Wall—Sandy Hook, N. J.—(Ft. Hancock post office).—Bids were received May 29 for constructing a sea wall at Sandy Hook, as follows: (a) furnishing stone with use of Government R.R., (b) furnishing stone without using Government R.R., (c) for unloading stone furnished by the Government and (d) furnish stone on board lighters at Ordnance dock, Sandy Hook. Louis J. Sieling (b) $2.33 per ton; Obrien Bros., (d) $0.70; Moran Towing & Transportation Co., (d) $0.65; Ralph M. Brown, (a) $2.24; CONGER, DUNCAN CONSTRUCTION CO., INC., New York, N. Y., at $8776 (awarded contract); and BOUKER CONTRACTING CO., Memphis, Tenn., at $3221 (awarded contract). Noted May 27.

Post Office—Reading, Penn.—Bids were received June 8 for remodeling and improving the post office at Reading, as follows: Norcross Bros. Co., New York, N. Y., $90,945; J. S. Rogers & Co., Moorestown, N. J., $98,423; Thomas W. Cissell, Wooster, Ohio, $115,000; M. E. Egger & Son, Danville, Ill., $98,455; John Lowry, Jr., New York, N. Y., $90,800; William H. Fissell, New York, N. Y., $99,878; H. F. L. Hummell, Reading, $97,634. Noted May 6.

✚Boilers—Washington, D. C.—The contract has been awarded to BABCOCK & WILCOX CO., New York, N. Y., at $31,800, for installing boilers in the Army transport "Warren."

★Machinery—Washington, D. C.—Bids were received June 8 by the Department of the Interior for furnishing stokers and coal and ash handling machinery for the power house of the Government Hospital for the Insane at Washington, as follows: Item (a), stokers; item (b), coal and ash handling machinery; (c), alternate to item (b); (d), soot-blowing apparatus; (e) coal weighing machinery. Westinghouse Electric & Mfg. Co., Pittsburgh, Penn., (a), $18,000; Busch Foundry & Equipment Co., Bridgeport, Penn., (a) $15,270; Under Feed Stoker Co. of America, Harris Trust Bldg., Chicago, Ill., (a), $19,513; alternate bid, $18,500; R. H. Beaumont Co., Philadelphia, Penn., (b), $21,000; (c), $15,770; (e), $22,500; alternate, $21,300; Bayer Steam Soot-Blower Co., St. Louis, Mo., (d), $2600; Diamond Power Specialty Co., Detroit, Mich., (a), $1925; Specialty Engineering Co., Philadelphia, Penn., (b), $18,910; (e), $750; Link-Belt Co., Philadelphia, Penn., (b), $20,475; National Stoker Co., Washington, D. C., (a), $15,850; Murphy Iron Works, Detroit, Mich., (a), $17,650; Giartinar-Daviess Engineering & Construction Co., St. Louis, Mo., (c), $2587; Guarantee Construction Co., New York, N. Y., (c), $13,610; (e), $14,607; Detroit Stoker Co., Detroit, Mich., (a), $14,850; Carl Wegemann & Co., Inc., New York, N. Y., (b), $18,950; (c), $14,950; Laclede-Christy Clay Products Co., St. Louis, Mo., (a), $17,625; Combustion Engineering Co., New York, N. Y., (a), $18,500; and Alvey Ferguson Co., Cincinnati, Ohio, (b) $26,400.

Ordnance—Washington, D. C.—Bids advertised to be opened June 9 by the Bureau of Ordnance, Navy Dept., Washington, D. C., for a large quantity of shell, have been postponed until noon, July 14, in order to permit certain important changes in specifications.

✚Remodeling Hospital—Washington, D. C.—The contract for remodeling the Naval Hospital at Washington has been awarded to the DETROIT HEATING CO., Washington, at $9596. Noted May 20.

Shrubbery—Washington, D. C.—Bids will be received until 10 a.m., July 7, by James A. Wetmore, Acting Superv. Arch., Treasury Dept., Washington, D. C., for planting trees and shrubs on the grounds of the Federal buildings at New Brunswick, N. J., Braddock, Chambersburg, Johnstown, Oil City and Steelton, Penn., Mattoon, Ill., Abbeville, S. C., New London, Conn., and Marlboro and North Adams, Mass.

Steps—Washington, D. C.—Bids were received June 9 by the Superintendent of the U. S. Capitol for replacing with new material the eastern steps of the U. S. Capitol, as follows: Cranford Paving Co., Washington, D. C., $10,500, Beaver Dam marble; Thomas Riley, Philadelphia, Penn., $12,930, Stone Mountain granite; Vermont Marble Co., Washington, D. C., $7600, Vermont marble; Alabama Marble Co., Grant's Ferry (Grant post office), Ala., $10,000, Alabama marble; Hilgartner Marble Co., Baltimore, Md., $11,500, Beaver Dam marble; J. E. Smith Cut Stone Co., Mt. Airy, N. C., $10,225, Stone Mountain granite; Arthur Cowsill, Washington, D. C., $9620, Cherokee marble; $9120, Stone Mountain granite; $11,309, Tennessee marble; $11,220, Dummerston marble; $10,686, Beaver Dam marble, and $9644, Amicolola marble; Beaver Dam Marble Co., Baltimore, Md., $10,975; Blue Ridge Marble Co., Nelson, Ga., $9495, Cherokee Georgia marble, A; and $8995, Cherokee Georgia marble, B; Norcross Bros. Co., Worcester, Mass., $18,000; Troy granite; $13,368, Georgia marble; $12,368, Vermont marble; $16,800, Concord granite, and $17,500, Milford granite; B. A. & G. A. Williams, New York, N. Y., $11,600, Concord granite, $9950, South Dover marble, and $10,670, Georgia marble.

Tools and Hardware—Washington, D. C.—Bids will be received until 2 p.m., July 6, by the Quartermaster General of the Army, Washington, for furnishing tools and hardware for the fiscal year 1916.

Shipbuilding Cranes—Norfolk, Va.—Bids were received June 12 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for furnishing two jib cranes for shipbuilding ways at the Navy Yard, Norfolk. Cranes are to be of the stationary, self-supporting, high-jib, trolley type. Brown Hoisting Machinery Co., Cleveland, Ohio, $49,700; Terry & Tench Co., Inc., New York, N. Y., $23,100; Laurence D. Weaming, Cleveland, Ohio, $20,600; McMyler Interstate Co., Bedford, Ohio, $19,800. Noted May 6 and 13.

Roofing Material—Atlanta, Ga.—Bids were received by the Superintendent of Prisons, Dept. of Justice, Washington, D. C., for furnishing roofing material for the U. S. penitentiary, Atlanta, as follows: Knox & Maier Co., Atlanta, $5236.17; Dowman & Dozier Mfg. Co., Atlanta, $7133; George A. Riddle & Co., St. Louis, Mo., $6277.64; Carolina Portland Cement Co., Atlanta, $2488, part bid; C. S. Garrett & Son Corporation, Philadelphia, Penn., felt, $43.96 per 2000 lb.; pitch, $19.20 per 2000 lb.; cement, $4.86 per 100 lb.; A. C. Horn Co., Long Island City, N. Y., $36 for elastic roofing cement only; U. T. Hungerford Brass & Copper Co., New York, N. Y., $2002 for nails and sheet copper only.

✚★Steel Lighters—Savannah, Ga.—Bids were received May 26 for constructing steel lighters as follows: Ellicott Machine Corporation, Baltimore, Md., $12,182; Merrill Stevens Co., Jacksonville, Fla., $10,541; U. S. Navy Yard, Charleston, S. C., $13,700; Wilmington Iron Works, Wilmington, N. C., $19,954; Pusey & Jones Co., Wilmington, Del., $17,400; Dravo Contracting Co., Pittsburgh, Penn, $9435; VALK & MURDOCK CO., Charleston, S. C., $9248 (awarded contract). Noted Apr. 29.

Levee Work—Vicksburg, Miss.—Bids will be received until 11 a.m., June 26, by the Third Mississippi River District, Box 404, Vicksburg, for constructing about 500,000 cu.yd. of levee enlargement.

✚Levee Work—Vicksburg, Miss.—The contract has been awarded by the Third District of U. S. Engineers to W. H. DENNISON, at $14,370, for 666,000 yd. of levee work on the Beulah levee. Noted June 3.

★Levee Work—Memphis, Tenn.—Bids were received May 26 by Maj. E. M. Markham, Memphis, for levee work in (a) Upper St. Francis, (b) Lower St. Francis, and (c) White River levee districts, as follows: N. C. Williams, Millikin, La., (c) $136,666; Yale & Reagan, Chicago, Ill., (a), (b) $413,416; Hercules Co., Ltd., New Orleans, La., (a) $511,450; E. J. Scott, St. Louis, Mo., (a) $328,100; S. M. Bush, Memphis, Tenn., (a), (b) $508,752; S. R. Hughes, Vicksburg, Miss., (c) $139,340; Roper Bros., Memphis, Tenn., (a), (b) $224,724 (part); J. H. Cary, Memphis, Tenn., (b) $191,023 (part); Oglesby Construction Co., Memphis, (a), (c) $373,254 (recommended for acceptance); W. H. Dennison, Memphis, (b) $231,094; H. B. Blankis Levee Co., Vicksburg, Miss., (a) $364,770; M. C. Connors & Co., Chicago, Ill., (b) $149,570; Jackson Construction Co., Natchez, Miss., (b), (c) $329,141; Sessions, Walker & Hill, Brumette, La., (a), (b), (c) $571,972; Bondurant, Clark & Co., Hickman, Ky., (b), (c) $312,128; R. L. Leonard, Memphis, (a), (b) $656,219; Rodgers Bros., Memphis, (a), (b), (c) $466,360; M. Tansey, Arkansas City, Ark., (b) $45,927 (part); Fred M. Crane Co., Omaha, Neb., (a) $403,515; Donaven & Daley, Lake Providence, La., (c) $146,300; George F. Ramsey, Memphis, (a) $67,920; W. T. & E. M. Lowrance & Co., Memphis, (a), (c) $317,890; J. A. Burt, Bond & McMurray, Gunnison, Miss., (c) $133,549; Cameron, Joyce & Co., Keokuk, Iowa, (a) $454,847; Grant, Smith & Co. & Locker, Rome, N. Y., (a) $395,650; Roach, Stansell, Lowrance Bros. & Co., Memphis, (a), (b), (c) $725,265; Linnan Bros., Memphis, (b) $128,154; J. M. Sullivan, New Orleans, La., (c) $153,315; Claude Cummins, Oakland, Calif., (a) $308,430; C. C. Aderholdt, Portageville, Mo., (b) $191,135, and Bondurant Construction Co., Hickman, Ky., (a) $320,483. Noted May 6.

✚Dredge—Louisville, Ky.—The contract for constructing the "Nolin River" dredge has been awarded to the DRAVO CONTRACTING CO., Pittsburgh, Penn., at $9375. Noted Apr. 29.

Metal Work—Milwaukee, Wis.—Bids will be received until 2 p.m., June 21, by the Lighthouse Inspector, Milwaukee, for metal work for the steel tower of the Manistque Light Station.

Building—Tomah, Wis.—Miller & Lamb, Tomah, was low bidder at $9961 for constructing a brick building for employees at the Tomah Indian Agency.

School—Crow Agency, Mont.—Bids will be received until 2 p.m., June 30, by Cato Sells, Comr. of Indian Affairs, Washington, D. C., for constructing a brick school and installing heating systems in the two dormitories.

✚★Dike—Waverly, Mo.—The contract has been awarded to the KANSAS CITY BRIDGE CO., Kansas City, at $75,350, for constructing timber crib on the Missouri River. Noted Apr. 29.

Post Office—Webb City, Mo.—Bids will be received until 3 p.m., July 26, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for constructing complete the U. S. post office at Webb City.

Remodeling Court House—Galveston, Tex.—Bids will be received until 3 p.m., July 14, by James A. Wetmore, Act. Superv. Arch., Washington, D. C., for remodeling the U. S. court house at Galveston and for remodeling the post office and custom house.

Oil Burning Plant—Port Townsend, Wash.—Bids will be received until 3 p.m., June 24, by James A. Wetmore, Act. Superv. Arch., Washington, D. C., for an oil-burning plant for heating boilers in the U. S. Marine Hospital at Port Townsend.

✚Storehouse—Puget Sound, Wash.—The contract has been awarded to MARTIN DUGAN, Seattle, at $36,513, for constructing a storehouse at the Naval Station. Noted May 6 and June 3.

Lumber—Seattle, Wash.—Schwager-Nettleton Mill Co., Cobb Bldg., Seattle, was low bidder at $15,863 for supplying lumber to the Alaska Engineering Commission, Seattle, for construction work on the Alaska R.R.

Building—Ft. Mason, Calif.—Bids will be received until 11 a.m., June 19, by the Quartermaster, Ft. Mason, for constructing a concrete ward at the Letterman General Hospital.

✚Water and Sewer Systems—San Diego, Calif.—The contract has been awarded to the POWER EQUIPMENT CO., Rialton Bldg., San Francisco, at $10,650, for constructing water and sewer systems at the Naval Station. Noted May 20 and June 3.

Locomotives—Panama—Bids will soon be received by the Purchasing Agent, Panama Canal, Washington, D. C., for furnishing 12 towing locomotives for the Panama Canal.

Standpipe—San Juan, Porto Rico—Bids will be received until 10 a.m., July 9, by the Quartermaster for constructing a 70,000,000-gal. steel standpipe or tank and trestle, at Mt. El Morro.

MISCELLANEOUS

Tanks—Chelsea, Mass.—The Mexican Petroleum Co. will erect six storage tanks on Eastern Ave.

✚Dredging and Riprap—Gloucester, Mass.—The following are the bids received by the Board of Harbor and Land Commissioners for the dredging of a six-foot channel in Mill River, 385 ft. long and 60 ft. wide, and for the construction of an earth dike on the west bank of the Connecticut River for 900 ft.; also for depositing 1950 tons of broken stone for a riprap wall. For Gloucester channel, item 1 is for dredging and item 2 is for the removal of boulders exceeding one cu.yd.: John H. Gerrish, 32c.; $8; BAY STATE DREDGING CO., .295c.; $9 (awarded contract); Eastern Dredging Co., 31c.; $9. For the Connecticut River work, item 1 is for the dike and item 2 for the stone: Way & Cecilli, $1.25; $2.40; Rivers & Young, 73c.; $2.55; C. M. Leach, 95c.; $4.53; DANIEL O'CONNELL'S SONS, 50c.; $1.78 (awarded contract).

Motor Fire Apparatus—Lowell, Mass.—The city has appropriated $15,000 for the purchase of motor fire apparatus. Dennis J. Murphy is Mayor.

✚Schooner—Weymouth, Mass.—The contract for constructing a 10,000-ton freight schooner for the Edwin F. Luckenbaels Co. has been awarded to the FORE RIVER SHIPBUILDING CORPORATION.

✚Mausoleum—Newark, N. Y.—The general contract for erecting a mausoleum to contain 140 crypts at the Willow Ave. Cemetery has been awarded to F. H. SIEVERT, Bloomville, Ohio. Sub-contracts were awarded as follows: Granite work, SARGENT GRANITE CO., Mt. Airy, N. C.; marble work, VERMONT MARBLE CO., Proctor, Vt.; bronze work, DETROIT MAUSOLEUM EQUIPMENT CO.

✚Pavilion—New York, N. Y.—(Borough of Bronx)—Official)—The contract for constructing a concrete pavilion at Riverside Hospital, North Brother Island, has been awarded to KELLY & KELLY 12th St., Long Island City. Noted May 13.

Screenings, Trap Rock, Etc.—New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received by the Department of Parks, Municipal Bldg., Manhattan until 3 p.m., June 24, for the following: Limestone screenings to Prospect Park; trap rock to Ocean Parkway and Ave. P; Cow Bay sand and gravel to Prospect Park and the gravel pit, Ocean Parkway and Ave. P.

Pavilion—New York, N. Y.—(Borough of Brooklyn)—(Official)—The following are the bids received by the Board of Health for the construction of a pavilion at the Kingston Ave. Hospital: Benedetto, Clark & Nugent, $73,614; C. L. Dooley Inc., $80,897; T. J. Waters, $71,800; John T. Brady, $73,510; William Flanagan, $77,350; Marble Arch Co., $87,000; Joseph Kressi, $73,400; H. C. Stowe Construction Co., $79,880; G. H. Mackaroy, $78,086; James McArthur Co., $82,417; R. H. Brown, $74,312; Harvy Abrams & Melius, $83,400; Kelly & Kelly, $77,800; T. J. Fearon, 32 Broadway, $66,972.

✚Subway Station—New York, N. Y.—(Borough of Brooklyn)—The contract has been awarded by the Public Service Commission, 154 Nassau St. (Borough of Manhattan), for the construction of the station finish of the Fourth Ave. subway, a part of the Broadway-Fourth Ave. Rapid Transit R.R. from center to Flatbush Ave. extension to a point on Fourth Ave., about 150 ft. south of 42d St. to D. C. SERBER, 1123 Broadway at $40,383. Noted May 27 and June 3.

Pier—New York, N. Y.—(Borough of Brooklyn)—The following are the bids received by R. A. C. Smith, Comr., Docks and Ferries, for building a new pier at the foot of 29th St.: Foundation Co. (Class No. 1), $147,400; (Class No. 2), $8977; (total) $156,377; McHarg Barton Co. (total), $122,587; W. B. Seaver, $145,384; $10,687; $156,071; Snare & Triest, $118,720; $8550; $127,270; Henry Stears, 17 Battery Place, $107,000; $9148; $116,148; Riverside Contracting Co., $115,816; $9832; $125,648; Stillman Delahanty & Ferris, $114,990; $7994; $122,984; G. B. Spearin, $124,994; $10,877; $135,871; New York Submarine Co., $123,498; $8550; $132,048; Phoenix Construction Co., $123,897; $8550; $132,447. Noted May 6 and June 3.

Canal Improvement—New York, N. Y.—(Borough of Brooklyn)—The Board of Estimate has made an appropriation of $80,000 for the improvement of Mill Creek Canal. The canal will be dug to a width of 300 ft.

Dredging—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by R. A. C. Smith, Comr. of Docks, Pier A, Battery Pl., for dredging for the Riverside Park improvement, West 87th to West 93d St., North River.

✚Removal of Street Encroachments—New York, N. Y.—(Borough of Manhattan)—(Official)—The contract for the removal of street encroachments, etc., at Public School No. 86, Lexington Ave. and 96th St. has been awarded to C. L. DOOLEY, 257 Adelphi St. (Borough of Brooklyn) at $9669. Noted June 10.

Motor Fire Apparatus—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids were received for furnishing and applying 26 two-wheel gasoline tractors, 16 for fire engines and 10 for hook and ladder trucks, from James Boyd & Bros., Inc., at $84,760, and the Front Drive Motor Co., Hoboken, N. J., at $86,680. Noted June 10.

Screen Work—New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until June 22 by the Department of Public Charities, Municipal Bldg., Manhattan for the installation of certain screen work on the windows and balconies of various buildings of the Sea View Hospital. Noted May 13 and 27.

Fire Station—Newark, N. J.—The Board of Chosen Freeholders have rejected all bids for the erection of the fire station at Overbrook Hospital.

Grand Stands—Newark, N. J.—All bids were rejected June 10, by the Essex County Park Commission for constructing two grand stands, one 188 ft. long and the other 225 ft. totaled $45,019 for the 188-ft. structure and $54,205 for the 225-ft. structure. Noted May. 20.

Motor Fire Apparatus—West New York, N. J.—The following are the bids received by the Town Council for furnishing fire apparatus: Front Drive Motor Co., Hoboken, N. J., $8200 for a 75-ft. Seagrave aërial truck and $8650 for an Ahrens-Fox triple combination pumping engine; American La France Fire Engine Co., $11,000; $9400; $11,500; Seagrave Co., Boston, Mass., $12,930; $16,200. Noted May 20 and June 3.

✚Motor Fire Apparatus—West Orange, N. J.—The contract for furnishing the city with a triple-combination motor chemical wagon and a motor driven hook and ladder, has been awarded to the AMERICAN LA FRANCE ENGINE CO., Elmira, N. Y., at $14,500.

Swimming Pool—Philadelphia, Penn.—Bids will be received until noon, June 17, by the Board of Recreation, City Hall, for building a swimming and wading pool at Waterview Recreation Park.

✚Memorial—Shepherdstown, W. Va.—The contract for the erection of a granite memorial to James Rumsey has been awarded to the FORBES GRANITE CO., Chambersburg, Penn., at $15,300.

Drainage—Holly Hill, S. C.—Bids will be received by the Board of Rum Neck Drainage Commissioners, until June 22, for constructing a canal about five miles long. The work requires about 14,740 cu.yd. of excavation. M. L. Breland is Chn. of Bd.

Drainage—Bartow, Fla.—The date for receiving bids by the Peace Creek Drainage District, 77 Main St., for constructing about 142 miles of drainage ditches, has been postponed until July 1. C. G. Elliott, McLachlen Bldg., Washington, D. C., is Ch. Engr. Noted Feb. 25 and May 6.

Wharves, Docks—Pascagoula, Miss.—A bond issue for $17,000 has been passed for the purpose of constructing public wharves or docks.

Levee Work—New Orleans, La.—(Official)—Bids will be received by the Board of Commissioners, New Orleans Court Bldg., until 3 p.m., June 22, for the following work along the Mississippi River: Levee work from Southern Pacific R.R. terminal to U. S. naval station, Fifth District, right bank of river; Aurora levee, Fifth District, right bank of river; levee work upper Stanton, Fifth District, right bank of river; filling in borrow pits, U. S. Government depot to lower end of Audubon Park, Sixth District, left bank of river.

Telephone and Telegraph Equipment—Cincinnati, Ohio—Bids will be received by Ernst Von Bargen, City Pur. Agt., City Hall, until noon, June 28, for furnishing police telegraph and telephone central office equipment and police and fire alarm boxes.

Bath House—Cincinnati, Ohio—Bids will be received by Philip Fosdick, Dir. of Pub. Ser., until June 17 for building a concrete bathouse, estimated to cost $28,000. Louis G. Dittoe, Provident Bank Bldg., is Arch.

Retaining Wall—Cincinnati, Ohio—Bids will be received by the Board of County Commissioners until noon, July 2, for constructing a retaining wall. Albert Reinhardt is Clk.

Pavilion—Cleveland, Ohio—Bids will be received by the Commisisoner of Purchases and Supplies, Room 511, City Hall, until noon, June 23, for the construction of a pavilion in Rockefeller Park. Specifications may be obtained from F. H. Betz, Arch., 420 City Hall.

Retaining Wall.—Loveland, Ohio—Bids will be received by the Board of County Commissioners, Cincinnati, until noon, July 2, for constructing a retaining wall on the Little Miami River.

Levee Embankment, Etc.—Midletown, Ohio—Bids will be received by John I. Miller, Supt. of Pub. Wks., Columbus, until 2 p.m., July 2, for building a levee embankment, a concrete culvert and repairing concrete spillway, at the Umbenhauer farm at the State Dam, north of Middletown.

+Levee—Piqua, Ohio—The contract for the construction of the Shawnee levee has been awarded by the County Commissioners to the OHIO MARBLE CO., Piqua, at $17,633. L. P. Knoop is County Engr. Noted June 3.

Levee Improvements—New Albany, Ind.—Samuel T. Mann, City Engr., is preparing plans for improvements to the levee.

+Fire Apparatus—Terre Haute, Ind.—The Board of Public Safety has awarded the contract for furnishing three combination hose and chemical motor cars and one automatic 75-ft. aërial truck to the SEAGRAVE CO., Columbus, Ohio, at $24,950. Noted Apr. 22.

+Levee—Cairo, Ill.—According to press reports the contract for the levee and ditch work in the Clear Creek Drainage and Levee District and the North Alexander County Drainage District has been awarded to the CANAL CONSTRUCTION CO., at $218,922. The district lies in both Union and Alexander Counties, and about 22,912 acres of land will be reclaimed.

Steam Shovel—Chicago, Ill.—Bids will be received by W. R. Moorhouse, Comr. of Pub. Wks., until June 18 for furnishing and delivering a revolving steam shovel f.o.b. cars Mayfair siding, Chicago, Milwaukee & St. Paul Ry.

Levees—Springfield, Ill.—The State Legislature has appropriated $45,000 for completing levees at Cairo, Mound City and Shawneetown.

Drainage—Baraboo, Wis.—The following bids were received for constructing a drainage system: Sweeney Bros., Reedsburg, $13,800; Pastoret Construction Co., Duluth, Minn., $16,000; Thornton Bros., St. Paul, Minn., $16,600. H. E. French is City Engr.

+Retaining Wall—Milwaukee, Wis.—The contract for constructing a retaining wall in Lake Michigan, about 1000 ft. in length, has been awarded by the Park Board to A. H. VOGEL, at $17.69 per ft.

Speedway—Des Moines, Iowa—The Prince Speedway Co., Des Moines, will construct a one-mile speedway at Valley Junction.

Ditch—Buffalo, Minn.—Bids will be received by John A. Berg, County Audr., for constructing County Ditch No. 24, also lateral No. 1.

+Ditches—Jackson, Minn.—The contract for constructing judicial ditch No. 31 has been awarded to WILLIAM NEUMAN, Lakefield, at $17,300, and for judicial ditch No. 37 to C. R. MITCHEL, Lakefield, at $6953. A. D. McKillar is County Audr.

Municipal Improvements—Kansas City, Mo.—The city has voted to issue $4,560,000 in bonds for various municipal improvements. Noted Apr. 29.

Levee—McGehee, Ark.—Press reports state that the taxpayers in the Cypress Creek Drainage District have voted to appropriate $110,000 for filling in the gap of the levee in Desha County.

Wharves, Docks, Etc.—Orange, Tex.—An election will be held July 20, for the purpose of voting $325,000 in bonds, to be used for the construction of municipal wharves, docks and street improvements. Noted June 10.

Ditches—Port Lavaca, Tex.—It is reported that bids will be received until June 22 by E. R. Edick, Secy., Seadrift Drainage Dist. No. 3, for constructing about 45 miles of ditches. The work requires about 326,000 cu.yd. of earth excavation.

Improvements to Fire Department—Temple, Tex.—The city has voted to issue $40,000 in bonds for improvements to the fire department. Noted May 27.

Pipe Line—Muskogee, Okla.—Press reports state that the Muskogee Oil Refining Co. has appropriated $100,000 for new improvements. A 40-mile pipe line is contemplated.

Fire Station—Ogden, Utah—Bids will be received by the City Commission until 10 a.m., June 30, for the construction of a fire station at Ninth St. and Washington Ave.

Drainage—Tempe, Ariz.—It is reported that $75,000 in bonds have been voted for the drainage of about 9000 acres of land in Drainage District No. 1.

Elevators—Seattle, Wash.—The lowest bid submitted for furnishing, delivering and installing electric passenger elevators of the "drum" and traction types in the King County Courthouse, was that of the Otis Elevator Co., Fourth Ave. and Seneca St., Seattle. Noted May 20.

Bulkhead, Etc.—Seattle, Wash.—Press reports state that all bids have been rejected by the Board of Public Works for constructing a bulkhead and improving **Alkah** Ave. L. B. Young is Chn. of Bd.

+Improvement to Dam—Oakland, Calif.—It is reported that the contract for improvements to the 12th St. dam from Fallon St. to the Lake Shore Blvd. has been awarded by the City Council to BLAKE BROS., at $27,756.

+Harbor Improvements—San Francisco, Calif.—The South San Francisco Land & Improvement Co. has awarded a contract for harbor work at South San Francisco to the SAN FRANCISCO BRIDGE CO., at $120,000.

+Pipe—Juneau, Alaska—The contract for furnishing about two miles of pipe for mining purposes for the Gastineau Mining Co. has been awarded to the WILLAMETTE IRON & STEEL WORKS, Portland, Ore. The cost is about $50,000.

Dock Improvements—Quebec City, Que.—Plans are being prepared by the Department of Public Works for improving the docks at a cost of $500,000. Work will soon be started.

Dam—Dundas, Ont.—Bids will be received by C. Karsh, Dundas, until June 23, for the construction of a concrete dam, 18x80 ft., for the Dundas Public Utilities Co., near Greenville. McPhie, Kelly & Darling, Bank of Hamilton Bldg., Hamilton, Ont., prepared the plans.

Docks—London, Ont.—The London & Port Stanley Ry. Board plans to make extensions to cost about $70,000. Philip Pocock, London Shoe Co., London, is Chn. of Bd.

Breakwater—London, Ont.—The City Engineer is preparing plans for a concrete breakwater to cost about $200,000.

Grandstand—Woodstock, Ont.—The Woodstock Agricultural Society will construct a grandstand on the fair grounds. Plans have been prepared.

Sprinkler System—Medicine Hat, Alta.—Plans are being prepared for the installation of a sprinkler system in the Lake of the Woods Milling Co. U. W. McNeeley is Mgr.

Elimination of Grade Crossing—Nanaimo, B. C.—It is reported that the City Council has approved plans for constructing an underground pass at Comox Rd. along the E. & U. Ry. The estimated cost is $20,704.

Sprinkler System—Prince Rupert, B. C.—According to reports bids will soon be called by the Grand Trunk Pacific Ry. Co. for installing an automatic sprinkler system in the carshops, dock buildings, administration building and 470 warehouses. The estimated cost is $50,000.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Ft. Kent, Maine—Bids will be received until 6 p.m., June 29, for the construction of a dormitory for the Madawaska Training School. Astle & Page, Caribon, Maine, is Arch.

Boston, Mass.—Richard C. Machawin, Pres. of the Massachusetts Institute of Technology, has announced that the institution will expend $250,000 for the construction of two dormitories, and $125,000 for a building for the Mining Department.

Cambridge, Mass.—A six-story, brick apartment block will be constructed at Lancaster St. and Massachusetts Ave., for the E. A. B. Apartment Trust. The estimated cost is $500,000. John A. Hasty, 46 Cornhill, is Arch.

Lawrence, Mass.—The Tarbox School will be remodeled at an estimated cost of $40,000. The work will be in charge of the Public Property Department.

+Worcester, Mass.—The EASTERN BRIDGE & STRUCTURAL CO., 88 Crescent St., has been awarded the structural steel contract for the North High School addition on Salisbury St.

Worcester, Mass.—A brick addition will be made to the Belmont Hospital to cost about $50,000. Delano & Fuller Co. is Arch. George C. Halcott Room 35, City Hall, is Supt. of Pub. Bldgs.

Allington, Conn.—(New Haven post office)—Bids will be received until June 26 for the construction of a two-story, 160x200-ft. administration building with a 40x100-ft. wing, a laundry building, a power-house and a nurses' home, all of brick and wood, for the New Haven Hospital Society. Scopes & Fenstman, 64 Main St., Saranac Lake, N. Y., is Arch.

+Albany, N. Y.—FEENEY & SHERIDAN BUILDING CO., 164 Montgomery St., has been awarded the general contract for the re-construction of the Y. W. C. A. building at 3-7 Lodge St. The estimated cost is $50,000. Fuller & Robinson Co., 95 State St., is Arch.

Binghamton, N. Y.—Bids will be received about July 1 by the Board of Education for the construction of a school on Helen St. Sanford O. Lacey, 415 Phelps Bldg.,' is Arch. Estimated cost, $100,000. Noted May 27.

Catskill, N. Y.—Plans are being prepared by M. W. Del Gaudio, Arch., 1910, Webster Ave., New York, for the construction of a four-story convent and school for the Franciscan Fathers, 151 Thompson St., New York. Estimated cost, $50,000.

+Cortland, N. Y.—The general contract for the construction of a bank and office building at Main and Railroad St., for the National Bank of Cortland, has been awarded to DAWSON BROS., Union Bldg., Syracuse. Estimated cost, $40,000. Mowbray & Uffinger, 56 Liberty St., New York, is Arch.

Dannemora, N. Y.—An appropriation of $75,000 has been granted for the construction of a two-story brick hospital at the State Prison. Lewis E. Pilcher, Capitol, Albany, is State Arch.

✚Hudson, N. Y.—The contract for the construction of a two-story hospital for the New York State Training School for Girls has been awarded to SIMON RUSSEK, INC., 261 Broadway, New York. Estimated cost, $55,000. Noted Nov. 12 and 26.

✚Hudson, N. Y.—The Board of Education has awarded the contract for the completion of the high school at Fourth and State St., to the BERRIGAN CONTRACTING CO., 509 East Main St., East Little Falls. The estimated cost is $90,000.

✚Ithaca, N. Y. — The MATTHEWS CONSTRUCTION CO., Alexander St., Princeton, N. J., has been awarded the contract for the construction of two dormitories, B and C, at Cornell Heights, for Cornell University. Day & Klauder, 925 Chestnut St., Philadelphia, Penn., is Arch. Estimated cost, $200,000. Noted Apr. 29.

Jamestown, N. Y.—Bids will be received about Aug. 15 for the construction of the 10- or 12-story Exposition Bldg., for the Jamestown Furniture Bldg. Co., Inc. Estimated cost, $185,000. Freeburg & Fidler, Chadakorn Bldg., is Arch.

Long Beach, N. Y.—Kirby & Petit, Arch., 103 Park Ave., New York, is preparing plans for the construction of a seven-story addition to the Hotel Trouville. The estimated cost is $100,000.

New York, N. Y.—(Borough of Bronx)—Plans have been prepared by Charles B. Meyers, 1 Union Sq., for the construction of two five-story apartment houses at Clinton Ave. and 180th St., for Adelstine & Avrutine, 71 Nassau St., New York. Estimated cost, $150,000.

✚New York, N. Y.—(Borough of Bronx)—The contract for the construction of a four-story hospital at Bainbridge Ave. and Gun Hill Rd., for the Montifiore Home for Chronic Invalids, has been awarded to the HEDDEN CONSTRUCTION CO., 1 Madison Ave., New York. Arnold W. Brunner, 101 Park Ave., and Buchanan & Fox, 30 East 42d St. are Assoc. Archs. Estimated cost, $200,000. Noted Nov. 26.

✚New York, N. Y.—(Borough of Bronx) — (Official) — KELLY & KELLY, at $57,900, 12th St., Long Island City, has been awarded the contract for the construction of a concrete dormitory for females at the Riverside Hospital, North Brother Island. Noted June 10.

New York, N. Y.—(Borough of Brooklyn)—Bids will soon be received for the construction of a four-story hospital at Rockaway Parkway and Ave. A for the Brownsville and East New York Hospital. The estimated cost is $100,000. Noted June 3.

New York, N. Y.—(Borough of Brooklyn)—The contract for the construction of a reinforced-concrete and brick theater for the Bay Ridge Theater Corporation, 46 Madison St., will soon be awarded. Robert T. Rasmussen, 999 Bergen St., is Arch. The estimated cost is $200,000. Noted May 13.

New York, N. Y.—(Borough of Manhattan)—Plans have been prepared by Tracy & Swartout, Arch., 244 Fifth Ave., for the construction of a one-story market building at 95th St. and Broadway for Vincent Astor. The estimated cost is $1,000,000.

New York, N. Y.—(Borough of Manhattan)—The Central Baptist Congregation will construct a church at Amsterdam Ave. and 92nd St. The estimated cost is $425,000. F. M. Goodchild is Pastor.

New York, N. Y.—(Borough of Manhattan)—Herman Lee Meader, Arch., 2 West 33rd. St., has been retained to prepare plans for the construction of a 12-story store and loft building to be erected at 35-37 West 37th St. for Leslie R. Palmer, 68 William St.

New York, N. Y.—(Borough of Manhattan)—Revised plans are being prepared by Edward L. Larken, Arch., 259 West 34th St., for the construction of a 21-story store, loft and office building to the known as the Printing Crafts Bldg., on Eighth Ave. between 33rd and 34th St. Estimated cost, $2,500,000. Noted Feb. 4.

New York, N. Y.—(Borough of Manhattan)—Jardine, Hill **& Murdock**, Arch., 3 West 29th St., will complete plans about June 15 for the construction of a 20-story store and office building at 309-313 Madison Ave., and 28 East 42d St. Estimated cost, $350,000. Noted Feb. 11.

✚New York, N. Y.—(Borough of Manhattan)—The contract for the construction of an 11-story building for the Grand Rapids Furniture Co., 34 West 32d St., has been awarded to the BING & BING CONSTRUCTION CO., INC., 119 West 40th St. Estimated cost, $200,000.

✚New York, N. Y.—(Borough of Manhattan)—CHARLES LOESCH CONTRACTING CO., 415 West 50th St., New York, has been awarded the contract for the construction of a three-story office building at 92nd St. near Third Ave. for George Ehret. Estimated cost, $60,000.

✚New York, N. Y.—(Borough of Manhattan)—JACOB A. ZIMMERMAN, 18 East 41st St., has been awarded the contract for the construction of a six-story store and loft building at Fifth Ave. and 50th St. for A. De Pinna & Co.

✚New York, N. Y.—(Borough of Manhattan)—The contract for the construction of a two-story, 67x100-ft. theater at 135th St. near Lenox Ave. has been awarded to the R. H. HOWES CONSTRUCTION CO., 105 West 40th St. Jardine, Hill & Murdock, 3 West 29th St., is Arch. Estimated cost, $45,000. Noted Apr. 15.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Harde & Short, 17 West 44th St., for the construction of a 10-story technical school at 61 East 77th St., for the Finch School. Estimated cost, $100,000. Noted Mar. 18.

✚New York, N. Y.—(Borough of Manhattan)—RITCHIE, BROWN & DONALD, Maspeth, L. I., has been awarded the contract for the architectural and iron work for the new Arnold, Constable Bldg. at Fifth Ave. and 40th St. Noted Dec. 10.

✚New York, N. Y.—(Borough of Manhattan)—The Strathcona Construction Co., Inc., 3785 Broadway, has awarded the steel contract for the 12-story loft, store and office building at Fifth Ave. and 31st St. to the HEDDEN IRON CONSTRUCTION CO., 30 Church St. The contract for foundation work and piling has been awarded to UNDERPINNING & FOUNDATION CO., 290 Broadway. George & Edward Blum, 505 Fifth Ave., is Arch. Estimated cost, $350,000. Noted Apr. 22.

New York, N. Y.—(Borough of Queens)—Franklin Hawley Janes, Arch., 154 Nassau St., New York, is preparing plans for the construction of a five-story loft building at Webster Ave., Long Island City, for Annie Schenck Anable, New York. The estimated cost is $200,000.

New Rochelle, N. Y.—The Board of Education contemplates the construction of an addition to the high school. H. De Witt Dobbs is Pres. and Grace E. Pine is Clk. of High School Bldg. Com. Noted Apr. 29.

Rochester, N. Y.—Plans have been prepared and bids will soon be received by William Brackett, Arch., Powers Blk., for the construction of a three-story, 40x67-ft. building at North Fitzhugh near Church St., for the Labor Temple Association. Estimated cost, $90,000. A. A. Gren, 100 Arcade Bldg., is Pres.

Scarsdale, N. Y.—Plans are being prepared by Guy Lowell, 225 Fifth Ave., New York, for the construction of a two-story high school at New York Post Rd., north of Sherbrooks Rd. Estimated cost, $64,000.

Schenectady, N. Y.—Bids will be received until June 25 by C. A. Sussdorf, Arch., 100 State St., Albany, for the construction of an addition and alterations to the Mohawk Baths, 220-6 South Center St. Estimated cost, $150,000. John A. Meehan is Proprietor.

Syracuse, N. Y.—Bids have been received for the general contract for the construction of a two-story gymnasium for the Vocational High School at Seneca and Tully St., as follows: O'Brien Construction Co., $48,631; John R. Burchell, $48,906; Dawson Bros., $56,000. Edwin Nottingham is Chn. and Charles A. Yates, is Secy. of Vocational High School Comn. Noted May 27.

✚Yonkers, N. Y.—The contract for the construction of a two-story school at North Broadway and Lamartine Ave. has been awarded to GEORGE T. KELLEY, 20 John St. H. Lansing Quick, 18 South Broadway, is Arch. Estimated cost, $40,000. Noted Oct. 29.

Englewood, N. J.—Bids will be received about Aug. 1 for the construction of a three-story school at Engle St. near Palisade Ave. Estimated cost, $150,000. Ernest Sibley, Palisade Park and J. J. Ferry, Dean St., Englewood, are Assoc. Archs. Noted June 10.

✚Hackensack, N. J.—The general contract for the construction of an addition to the Bergen County Jail has been awarded to JOHN T. BRADY & CO., 103 Park Ave., New York. The estimated cost is $50,000. Charles N. Cumberland, Maywood, is Chn. of Bldg. Com. Noted May 13.

Hoboken, N. J.—The Board of Education plans to issue $60,000 in bonds, proceeds to be used for improving Public School No. 8. Richard A. Maxwell is Business Mgr.

Hoboken, N. J.—(Official)—Bids will be received until 7:30 p.m., June 28, by the Board of Education for the construction of additions and repairs to Public School No. 8. The estimated cost is $60,000.

✚Morristown, N. J.—NICHOLAS MARINARO has been awarded the contract for the construction of additions and alterations to the Palace Theater. The estimated cost is $60,000. A. Esposito is owner.

Newark, N. J.—The Board of Education plans to construct a high school on the West Side, four public schools and additions to five schools. The cost of the entire work will be about $967,000.

Newark, N. J.—The Public Service Corporation of Newark plans to construct a mercantile building at Central Ave. and Broad St.

Newark, N. J.—The Board of Education contemplates the construction of a school on 18th Ave. Estimated cost, $125,000. E. F. Guilbert, City Hall, is Arch.

✚Paterson, N. J.—The contract for the construction of School No. 21 has been awarded to J. H. STEEL & CO. The estimated cost is $155,124. William T. Fanning, Colt Bldg., is Arch. Noted Apr. 1.

Summit, N. J.—The Board of Education contemplates the construction of a two-story high school on Morris Ave. The estimated cost is $100,000. Helen L. Collins, Springfield Ave. School, is Secy. Noted Dec. 17.

West New York, N. J.—Bids will be received until June 21 by Joseph Stiltz, Pres., Bd. of Education, at School 1, 18th and Madison St., for the construction of a three-story school at Broadway and 18th St. Gregory B. Webb and Karl T. J. Seifert, 104 West 42d St., New York City, N. Y., are Assoc. Archs. Estimated cost, $185,000. Noted Apr. 15.

✚Woodbury, N. J.—The contract for the construction of an addition and alterations to the bank building for the Woodbury Trust Co. has been awarded to JOSEPH B. BEST, Woodbury. Estimated cost, $50,000. Noted Mar. 18.

✚Coraopolis, Penn.—The contract for the construction of a one-story church for the First U. P. Church has been awarded to HOBAUGH & WIMER, Butler. Estimated cost, $60,000. Noted Mar. 11.

Chestnut Hill, Penn.—(Philadelphia post office)—Plans will soon be prepared for the construction of the Carson College for Orphan Girls to be erected on the Carson Estate at Erdenheim. An endowment of $4,000,000 has been left for this purpose. John Gribbell is Chn. of Bd. of Trustees.

✚Erie, Penn.—The contract for the construction of a three-story club house for the Fraternal Order of Moose has been awarded to FRANK LAIRD. The estimated cost is $52,000. J. Wright is Chn. of Bldg. Com. Noted May 13.

Loretto, Penn.—Plans are being prepared by D. G. Puderbough, Altoona, for the construction of a three-story, brick fraternity building for St. Francis College. The estimated cost is $50,000.

✚Mahoningtown, Penn.—(Official)—The contract for the construction of a school has been awarded to WILLIAM CHAMBERS & SON, New Castle, at $65,242. Noted May 27.

Natrona, Penn.—Plans are being prepared by William G. Eckles, Arch., Lawrence Saving & Trust Bldg., New Castle, for the construction of a two-story school. Estimated cost, $50,000. P. M. Kennedy, is Secy., Bd. of Education. Noted Apr. 22.

Philadelphia, Penn.—The following bids were received by the Property Committee of the Board of Education for the construction of new wings to the John Hay School: McCloskey & Bahes, $81,825; Alexander Bottoms Sons' Co., $85,918; Henry E. Baton, $88,357; Mitchell Bros., $83,800; William R. Dougherty, $82,728; Cramp & Co., $87,494; H. Wehmever, $82,843; Thomas Reilly, $86,446; Ketcham & McQuade, $86,428; Frank G. Stewart, $89,740; W. W. Anstine & Co., $89,040.

✚Philadelphia, Penn.—The contract for the construction of a five-story office building for the Philadelphia Life Insurance Co. has been awarded to DOYLE & CO., 1519 Sansom St., Philadelphia. Aden B. Lacey and Alexander Adams are Assoc. Archs. Noted June 10.

Warren, Penn.—Plans are being prepared and bids will soon be asked for the construction of a two-story, 65x110-ft., brick Emergency Hospital. The estimated cost is $40,000. F. H. Grunmger is Arch.

Clifton Forge, Va.—Longest & Tessier, Greensboro, N. C., submitted the lowest bid for the construction of a three-story hospital for the Chesapeake & Ohio Ry., Room 1304, First National Bank Bldg., Richmond. The estimated cost is $50,000. Noted May 13.

Franklin, Va.—Bids are being received by R. M. Candler, Pastor of M. E. Church, Franklin, for the construction of a one-story addition. The estimated cost is $60,000. Mitchell & Wilcox, Paul Gale Greenwood Bldg., Norfolk, Va., is Arch.

✚Norfolk, Va.—The contract for the construction of a 70x77-ft., brick church at Wide and Henry St., for the First Calvary Baptist Congregation, has been awarded to J. W. WELLS, at $43,055. Mitchell & Wilcox is Arch.

Virginia Beach, Va.—Marion & Davis, Arch., 303 Fifth Ave., New York, is preparing plans for the construction of a 300x50-ft. hotel for the Manhattan Construction Co., Marbridge Bldg., New York.

Gastonia, N. C.—An election will be held in this city June 22 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for the construction of schools.

Wilson, N. C.—Benton & Moore, Arch., is preparing plans for the construction of a seven-story, 80x100-ft., reinforced-concrete and brick building for the Grand United O. of O. F. The architects will let the contract about Dec. 1. Estimated cost, $100,000.

Savannah, Ga.—Bids will be received until July 6 for the construction of a library for the city of Savannah. H. W. Witcover, Savannah, is Arch. Noted Dec. 31.

Savannah, Ga.—Bids will be received until June 29 by Dennison & Hirons, Arch., 475 Fifth Ave., New York, for alterations to the National Bank of Savannah Bldg. The estimated cost is $50,000.

Jackson, Miss.—At a recent election the citizens voted in favor of the question of issuing $65,000 in bonds, the proceeds of which will be used for the construction of a school and to repair and enlarge old ones.

Nashville, Tenn.—The Clemons School, recently destroyed by fire, will be rebuilt. The estimated cost is $45,000. Hart & Gardner is Arch.

Nashville, Tenn.—Marr & Holman, Arch., is preparing plans for the construction of the new Elliott School. The estimated cost is $45,000.

Nashville, Tenn.—Plans are being prepared by Charles Ferguson, Arch., for the construction of the new Pearl Negro High School. The estimated cost is $45,000.

Nashville, Tenn.—The construction of a college of medicine for Vanderbilt University, estimated to cost $300,000, has been postponed. It will probably be built in about a year. Samuel Hannaford & Sons, 601 Hubert Bldg., Cincinnati, Ohio, is Arch. Noted Apr. 8 and 15.

Ft. Thomas, Ky.—Plans are being prepared by Zettle & Rapp, Arch., 607 Johnston Bldg., Cincinnati, Ohio, for the construction of a motion picture studio for the Highland Film Co., Gayety Theater Bldg., Cincinnati. Estimated cost, $300,000.

Lawrenceburg, Ky.—Bids will be received until June 22 by Judge J. S. O'Dell, Chn. of Fiscal Court, Lawrenceburg, for the construction of a two-story court house. Estimated cost, $60,000. Joseph & Joseph, 809 Great Southern Bldg., Louisville, is Arch. Noted May 13.

✚Paris, Ky.—The contract for the construction of a five-story building for the First National Bank has been awarded to the OWEN CONSTRUCTION CO., Realty Bldg., Louisville. Estimated cost, $40,000.

Richmond, Ky.—Plans are being prepared by Weber, Werner & Adkins, Arch., 1206 Mercantile Library Bldg., Cincinnati, Ohio, for the construction of a four-story lodge, store and office building for the B. P. O. E. Elmer Deatherage is Chn. of Bldg. Com.

✚Alliance, Ohio—The contract for the construction of the State Hospital has been awarded to JAMES H. WELLS, Scranton Rd. and Valentine St., Cleveland. Williard Hirsh, 1302 Swetland Bldg., Cleveland, is Arch. Noted Feb. 25.

Bratenahl, Ohio—(Cleveland post office)—Preliminary plans have been prepared by Abram Garfield, Arch., 915 Garfield Bldg., for the construction of a village hall for the village of Bratenahl. The estimated cost is $40,000. A. S. Chisholm is Dir. of Pub. Ser.

Canton, Ohio—Bids will be received until noon, June 28, by W. C. Lane, Clk. of Bd. of Education, for the construction of a three-story, 150x87-ft. school. The estimated cost is $80,000. C. C. & A. L. Thayer, Mercantile Bldg., New Castle, Penn., is Arch. Noted Apr. 15.

✚Chillicothe, Ohio—(Official)—The contract for the construction of a school with a gymnasium has been awarded to LITTER & JONES, Chillicothe, at $54,000. Other bidders were: W. H. Isgrigg, $54,415; Structural Concrete Co., $68,800; John W. Boren & Son, $54,752; W. B. Winters, $54,985. Ritter & Bates, Portsmouth, is Arch. Noted May 27.

Cincinnati, Ohio—Plans are being prepared by Samuel Hannaford & Sons, Arch., 601 Hubert Bldg., for the construction of a three- and four-story medical school for Cincinnati Medical College. The estimated cost is $200,000. C. R. Holmes is Chn. of Bd. of Trustees.

Cincinnati, Ohio—Plans are being prepared by Elzner & Anderson, Arch., 135 Ingalls Bldg., for the construction of a two-story building for the Cincinnati Children's Home. The estimated cost is $100,000. Walter G. Franz, 1703 Union Trust Bldg., is Consult. Engr.

Cleveland, Ohio—Plans have been prepared by George H. Hammond, Arch., 4220 Prospect Ave., for the construction of a ten-story addition to the Gilley Hotel, East Ninth St. Estimated cost, $150,000. R. E. Gill, is owner.

Cleveland, Ohio—Plans are being prepared by William S. Lougee, Arch., 500 Marshall Bldg., for the construction of a market house at West 25th St. and Denison Ave. The estimated cost is $75,000.

Dayton, Ohio—The Order of Eagles plans the construction of a new building. The estimated cost is $80,000.

Eaton, Ohio—An election will soon be held in the Camden School District to vote on the question of issuing $60,000 in bonds, the proceeds of which will be used for the construceion of a school. S. L. Yechum is Supt. of Camden Schools.

Findlay, Ohio—Plans have been prepared by McLaughlin & Hulsken, Arch., 610 Savings Bldg., Lima, for the construction of four infirmary buildings for Hancock County. The estimated cost is $100,000. John Finsel is Pres. of County Comrs. Noted May 13.

Fremont, Ohio—Plans are being prepared by Langdon & Hohly, Arch., 1442 Nicholas Bldg., Toledo, for the construction of a building for the Masonic Lodge. Estimated cost, $60,000. John Sherman is Chn. Noted Mar. 25.

✚Milton, Ohio—The contract for the construction of a two-story grade and high school has been awarded to J. I. BARNES, Logansport, Ind. The estimated cost is $45,000. A. C. De Curtins, 503 Opera House Bldg., is Arch.

Old Fort, Ohio—At a recent election the citizens voted in favor of the question of issuing $45,000 in bonds, the proceeds to be used for the construction of a school.

Painesville, Ohio—Preliminary plans have been completed for the construction of a one-story gymnasium for Lake Erie College. The estimated cost is $70,000. Abram Garfield, 915 Garfield Bldg., Cleveland, is Arch. Noted Oct. 22.

Radner, Ohio—Bids will be received until noon, June 26, by H. K. Jones, Clk. of Bd. of Education, for the construction of a high school. William R. Powell, 1106 Hippodrome Bldg., Cleveland, is Arch.

Ravenna, Ohio—The First Methodist Church is planning the construction of a church. Estimated cost, $45,000. Charles H. Hanger is Pastor.

✚Toledo, Ohio—The Board of Education has awarded the contract for the construction of the two-story Wallbridge School to the H. J. SPIEKER CO., 409 Michigan St., Toledo. The estimated cost is $225,000. George L. McKesson is Dir. of Schools. Noted May 13.

Wilmington, Ohio—Bids will soon be received by Harry Gastl, Audr., of Clinton County, Court House, Wilmington, for the construction of a three-story court house and jail. Estimated cost, $300,000. Weber, Werner & Adkins, 1206 Mercantile Library Bldg., Cincinnati, is Arch. Noted May 13.

Columbus, Ind.—Preliminary plans are being prepared by D. A. Bohlen & Son, Arch., 1002 Majestic Bldg., Indianapolis, for the construction of a three-story hospital. The estimated cost is $75,000. William Irwin, care of Irwin's Bank, is Chn. of Hospital Trustees.

Ft. Wayne, Ind.—C. B. Weatherhogg, Arch., 4 Hamilton Bank Bldg., has prepared plans for the construction of a five-story building for the Hope Hospital Association. A. S. Coverdale is Pres. and A. G. Burry is Chn. of Bldg. Com. The estimated cost is $100,000.

✚Ft. Wayne, Ind.—The contract for the construction of a two-story, 70x100-ft. building for the Central Catholic High School, has been awarded to the INDIANA ENGINEERING & CONSTRUCTION CO., 702 Shoaff Bldg., Ft. Wayne. Estimated cost, $40,000. J. R. Quinlan is Chn.

Indianapolis, Ind.—Bids will be received by the Business Director of the Board of School Commissioners, 66 West New York St., Indianapolis, until noon, July 20, for the construction of a central library building at St. Clair St. between Meridian and Pennsylvania St. Paul P. Cret is Arch., and Zantzenger, Borie & Medary, 139 South 15th St., Philadelphia, is Assoc. Arch. Noted May 20.

Portland, Ind.—Plans are being prepared by McLaughlin & Hulsken, Arch., 610 Savings Bldg., Lima, Ohio, for the construction of a three-story court house for Jay County. The estimated cost is $275,000. Noted Apr. 1.

Walton, Ind.—Bids will be received until June 26 by D. A. G. Coblentz, Trustee Tipton Township, Onward, for the construction of an addition to the high school. The estimated cost is $40,000. Layton Allen, 401 Lombard Bldg., Indianapolis, is Arch.

Brown City, Mich.—Bids will be received until June 20 by J. E. Campbell, Pres., Bd. of Education, for the construction of a two-story, brick high school. The estimated cost is $75,000. J. E. Mills & Son, 1305 Kresge Bldg., Detroit, is Arch.

Grand Beach, Mich.—Plans are being prepared by Graham, Burnham & Co., Arch., 80 East Jackson Blvd., Chicago, Ill., for the construction of a 12-story hotel. The estimated cost is $1,000,000.

Jackson, Mich.—E. E. Bailey Co., Arch., Chambers Bldg., Oil City, Penn., is preparing plans for the construction of an eight-story building for the Central State Bank.

Saginaw, Mich.—Bids will soon be received by Ç. Howard Crane, Arch., 2325 Dime Bank Bldg., Detroit, for the construction of a 3½-story theater, store and office building for the Saginaw Hippodrome Co. Noted Feb. 4.

Sandusky, Mich.—Bids will be received until June 21 by the County Clerk, for the construction of a three-story court house for Sanilac County. Joseph E. Mills & Son, 1305 Kresge Bldg., Detroit, is Arch. Noted Mar. 11.

Chicago, Ill.—Plans are being prepared by Wheelock & Shank, Arch., 64 West Randolph St., for the construction of a 16-story, 175x300-ft. hotel. J. M. Gartside, 105 South La Salle St., is representative of the syndicate.

Chicago, Ill.—Bids are being received by Ralph C. Harris, Arch., 30 North La Salle St., for the construction of a three-story hotel for Kusel & Harris, 30 North La Salle St. The estimated cost is $75,000.

Chicago, Ill.—Plans are being prepared by Charles S. Frost, Arch., 105 South La Salle St., for the constructon of a four-story office building at East Ravenswood Park and Lawrence Ave. for the Chicago & Northwestern Ry. The estimated cost is $250,000. W. H. Finley, Chicago, is Ch. Engr. of Ry.

Chicago, Ill.—Carl A. Anderson contemplates the construction of a 30-apartment court building at 5413-21 Ellis Ave. The estimated cost is $100,000.

Chicago, Ill.—Charlotte Reynolds will construct several apartment houses at Broadway and Addison St. The estimated cost is between $500,000 and $600,000.

✚East St. Louis, Ill.—The contract for the construction of a two-story high school has been awarded to the KELLERMAN CONTRACTING CO., Roe Bldg., St. Louis, Mo. F. W. Kraft is Pres. Bd. of Education. Riester & Rubach, 414 Missouri Ave., East St. Louis, is Arch. Noted Mar. 25.

Kewanee, Ill.—Plans are being prepared by Hewitt & Emerson, Arch., 321 West Main St., Peoria, for the construction of a four-story hotel for the Kewanee Hotel Co. Estimated cost, $80,000.

Oak Park, Ill.—Plans are being prepared by Ire C. Saxe, Arch., 79 West Monroe St., Chicago, for the construction of six apartment houses at Humphrey and Austin Ave., between Lake and Ontario St., for John C. Snowhook. The estimated cost is about $125,000 each.

✚Pekin, Ill.—(Official)—EDWARD J. LAMPITT, Pekin, at $68,000 has been awarded the contract for the construction of a two story high school. Hewitt & Emerson, 321 West Main St., Peoria, is Arch. Noted May 6.

Peoria, Ill.—Plans are being prepared for the construction of a four-story bank and office building for the Consolidated Bank. The estimated cost is $100,000. William C. White is Pres.

Appleton, Wis.—Plans are being prepared by Cooledge & Hodgson, Arch., Chicago, for the construction of building for the Citizens National Bank. The estimated cost is $75,000.

✚Green Bay, Wis.—The contract for the construction of a six-story, 66x106-ft. store and office building for Bellen & Buchanan, has been awarded to the FABRY CONSTRUCTION CO., Green Bay. P. T. Benton is Arch.

✚Green Bay, Wis.—The general contract for the construction of an addition to the McCartney National Bank has been awarded to H. J. SELMER. Noted Apr. 29.

Sheboygan, Wis.—The city contemplates the construction of a high school. The estimated cost is $150,000.

Milwaukee, Wis.—Plans are being prepared by Tullgren & Sons, Arch., Manhattan Bldg., Milwaukee, for the construction of a two-story theater and commercial building at Downer Ave. and Belleview St., for the Read & Neacy Investment Co., Milwaukee. Estimated cost $65,000.

Alta, Iowa—An election will be held in this city June 29 to vote on the question of issuing $55,000 in bonds, the proceeds of which will be used for the construction of a school.

✚Ames, Iowa—J. E. TUSANT & CO., Des Moines, at $41,519, has been awarded the contract for the construction of the city hall and fire station.

Centerville, Iowa—Preliminary plans are being prepared for the construction of a four-story, 42x125-ft., brick and stone hospital for the Catherine Sisters. The estimated cost is $60,000.

Cherokee, Iowa—The Board of Education will award the contract for the construction of a three-story, 90x149-ft., brick high school, the latter part of June. The estimated cost is $80,000. Proudfoot, Bird & Rawson, 810 Hubbell Bldg., Des Moines, is Arch.

Dubuque, Iowa—Plans have been prepared by Shattuck & Hussey, Arch., Chicago, Ill., for the construction of a building for the Y. M. C. A. Estimated cost, $100,000. E. T. Baer is interested.

Jefferson, Iowa—At an election held May 20 the citizens voted in favor of the question of issuing $150,000 in bonds, the proceeds of which will be used for the construction of a court house.

✚Missouri Valley, Iowa—(Official)—The contract for the construction of a high school has been awarded to C. C. NORGARD & SON, Council Bluffs, at $58,176. Noted Apr. 8.

✚Sioux City, Iowa—The cotract for the construction of a four-story, brick store and office building at Sixth and Pierce St., for W. S. Gilman, 611 Pierce St., has been awarded to the EGLEY-PAYETTE CONSTRUCTION CO. The estimated cost is $100,000. Noted Feb. 25.

Sioux City, Iowa—Bids will soon be received for the construction of a Church at 19th and Nebraska St., for the First Methodist Episcopal Congregation. Estimated cost, $100,000. Meuttler & Arnold, Sioux City, is Arch.

Albert Lea, Minn.—Bids will be received until 4 p.m., June 24, by H. G. Harm for the construction of a six-story office building. Hoffman & Masse, Rochester, Minn., is Arch. Noted Mar. 4.

✚Alexandria, Minn.—The NATIONAL CONTRACTING CO., Alexandria, has been awarded the general contract for the construction of a two-story, 65x105-ft., brick high school. A. A. Urness is Clk. of School Bd.

✚Duluth, Minn.—The contract for the construction of a building for Garvin, Lenning & Brown Wholesale Grocery Co., has been awarded to W. J. ZITTERELL, Webster City, Iowa. The estimated cost is $200,000.

Fairmont, Minn.—Bids will be received until 1 p.m., June 22, by Clayton A. Porter, Secy., Bd., of Education, for the construction of a two-story, 175x115-ft., brick and stone high school. The estimated cost is $135,000. Grant C. Miller and Fullenwider & Dowling, 5 North Michigan Ave., Chicago, Ill., are Archs.

GENESEE RIVER FLOOD PROTECTION, ROCHESTER, N. Y.

✚Bids were received May 19 by the Department of Engineering, Rochester, N. Y., for deepening the Genesee River channel from the Central Ave. Dam to a point 200 ft. south of the Erie Canal Aqueduct from: (A) LATHROP, SHEA & HENWOOD, Ellicott Sq. Bldg., Buffalo (awarded contract); (B) R. T. Ford Co.; (C) M. H. Ripton; (D) T. A. Gillespie Co.; (E) Thomas Holahan; (F) Haller & Shephard; (G) Houston Barnard; (H) Cleveland & Sons Co.; (I) Myers & McWilliams; (J) Buffalo Dredging Co.; (K) Whitmore, Rauber & Vicinus; (L) Fitch & Douglas. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K	L
10,000 cu.yd. earth excavation	$2.20	$1.20	$1.00	$1.72	$2.00	$1.75	$2.40	$0.75	$2.40	$2.00	$2.00	$1.75
20,000 cu.yd. rock excavation under bridges and Erie Canal Aqueduct and within 20 ft. of piers	2.20	2.75	2.50	2.30	2.50	2.75	2.40	2.72	2.40	2.65	2.65	3.00
90,000 cu.yd. rock excavation not included in above	2.20	1.90	2.25	2.18	2.25	2.20	2.40	2.40	2.40	2.50	2.60	2.60
40,000 sq.ft. channeling	0.40	0.50	0.60	0.43	0.60	0.60	0.50	0.60	0.60	0.50	0.40	0.40
2000 cu.yd. concrete facing of channel and elsewhere requred	10.00	8.00	10.00	9.20	10.00	7.50	10.00	7.45	11.00	12.00	10.00	10.00
2000 lb. steel reinforcement	0.10	0.10	0.07	0.06	0.10	0.05	0.05	0.05	0.10	0.05	0.05	0.05
Coffer-damming, bailing and draining (lump sum)	15,000	45,000	30,000	47,000	28,300	40,000	30,000	45,000	38,000	35,000	35,000	45,000
Extended totals	$315,200	$319,200	$336,640	$342,120	$345,000	$349,600	$358,100	$361,900	$372,200	$377,100	$378,100	$392,600

BREAKWATER IMPROVEMENTS, HARBOR BEACH, MICH.

Bids were received May 20 by Lieut.-Col. M. M. Patrick, Corps Engineers, U. S. A., Detroit, Mich., for improvements to the Breakwater at Harbor Beach, Mich., by (Schedule 1) constructing and placing two timber cribs, and replacing with concrete superstructure, and (Schedule 2) rip-rapping the breakwater. The bidders were: (A) Burk, Smith & Nelson, Muskegon; (B) John Ginzel, Detroit; (C) Greiling Bros. Co.; (D) Benjamin Douglas Co., Detroit; (E) William J. Meagher, Bay City; (F) Great Lakes Dredge & Dock Co., Chicago ,Ill.; (G) Candler Dock & Dredge Co., Detroit; (H) Coast & Lakes Contracting Corporation, 41 Broad St., New York, N. Y.; (I) D. L. Taylor & Co., Inc., Medina, N. Y.; (J) Edward Gillen Dock, Dredge & Construction Co., Racine, Wis. The item bids were as follows:

Schedule 1

	A	B	C	D	E	F	G
Removing wrecks of two old cribs and providing foundations for two new cribs, lump sum	$3000.00	$2000.00	$2200.00	$5700.00	$2000.00	$2000.00	$1600.00
90M. ft. b.m. timber for framing and completing two timber cribs	12.00	12.00	25.00	95.00	10.00	3900.00*	90.00
1630 lin.ft. removing old superstructure	2.00	3.00	4.00	7.75	4.00	3.00	4.50
35,000 lb. bolts, tie rods and washers	0.04	0.06	0.04	0.04	0.05	0.04	0.06
9000 cu.yd. concrete sections	4.25	4.50	4.90	3.00	5.25	5.25	5.52
12,000 bbl. cement	1.42	1.27	1.32	1.45	1.25	1.50	1.75
7 mooring posts	25.00	20.00	40.00	75.00	15.00	50.00	21.00
7280 ft. white oak fenders, per M ft., b.m.	80.00	70.00	80.00	100.00	65.00	75.00	70.00
Extended totals	$64,787	$66,110	$73,172	$73,935	$79,998	$78,336	$90,472

* Lump-sum bid.

Schedule 2

	C	E	F	H	I	J
15,000 tons stone in core of structure	$1.70	$1.10	$1.80	$1.32	$1.85	$2.85
35,000 tons large stones on exposed slope	1.90	1.35	1.90	1.32	1.85	2.95
Extended totals	$92,000	$63,750	$93,500	$66,000	$92,500	$146,000

The Hagar Portland Cement Co. has been incorporated, with a capitalization of $20,000,000. This is the organization of Edward M. Hagar. The office will be at 208 La Salle St., Chicago. The initial output of the various plants of the company will be about 14,000,000 bbl. per year. This is the famous brickyard scheme of establishing cement plants at convenient shipping points and so allotting the territory that no plant will ship a greater distance than 200 miles.

✚Fertile, Minn.—The Board of Education has awarded the contract for the construction of a two-story school to J. ROSS, Fertile, at $50,000. J. A. Gregorson is Secy. Noted Mar. 25.

Hastings, Minn.—Plans are being prepared by C. H. Johnston, Arch., 715 Capital Bank Bldg., St. Paul, for rebuilding the three-story east ward of the main building, at the State of Minnesota Insane Asylum. Estimated cost, $50,000. C. L. Pillsbury, 805 Metropolitan Life Bldg., Minneapolis, is Mech. Engr.

✚Hayfield, Minn.—G. SCHWARTZ & CO., at $42,750, has been awarded the contract for the construction of a two-story high school for the Independent School District No. 69. George P. Hagen is Secy., Bd. of Education.

Little Falls, Minn.—Plans are being prepared by Alden & Harris, Arch., 909 Commerce Bldg., St. Paul, for the construction of a two-story brick building for St. Gabriel Hospital. The estimated cost is $50,000.

✚Mankato, Minn.—The contract for the construction of a theater for Sandon Bros. has been awarded to G. ANDERSON, Mankato, and L. R. WHETSON, Minneapolis. The estimated cost is $50,000.

Milaca, Minn.—Bids will soon be received for the construction of a two-story, brick high school. The estimated cost is $80,000. J. Bacon is Clk. of School Dist. Noted Apr. 29.

Redwood Falls, Minn.—Plans are being revised and bids will soon be received for the construction of a two-story brick addition to the high school. H. M. Aune is Clk. of School Dist. No. 1, and Tyree & Chapman, Auditorium Bldg., Minneapolis, is Arch.

St. Paul, Minn.—Plans are being prepared by C. A. Hausler, Arch., City Hall, for the construction of a two-story brick school, to be known as the McClellan School, at Oxford and Stinson St. Estimated cost, $42,000. Anthony Yoery is Comr. of Education.

Lawrence, Kan.—The citizens have voted in favor of the question of issuing $42,000 in bonds. The proceeds will be used for the construction of a school. Noted July 2.

Minneapolis, Kan.—Preliminary plans are being prepared by Owen & Payson, Arch., 713 Scarritt Bldg., Kansas City, Mo., for the construction of a two-story school. Estimated cost, $40,000. J. E. Johnston is Pres., Bd. of Education. Noted May 6.

St. Paul, Kan.—Plans are being prepared by Barnett, Haynes & Barnett, Arch., Century Bldg., St. Louis, Mo., for the construction of a three-story Building for Loretto Academy.

Wichita, Kan.—Plans are being prepared by Carl & Boller, Arch., Gayety Theater Bldg., Kansas City, Mo., for the construction of a three-story, 110x125-ft. motion picture theater. The building will be owned by L. M. Miller, Stanley Chambers, S. B. Amidon, Schweiter Bldg., and Warren Brown, Augusta, Kan. Estimated cost, $80,000. Noted Feb. 18.

Omaha, Neb.—Plans are being prepared for the construction of a 10- or 12-story building to be known as the Joslyn Bldg., at 16th and Harney St. Henry Hiller is interested.

Omaha, Neb.—The construction of a convent school for the Sisters of the Dominican Order, Sinsinawa, Wis., is under consideration. Estimated cost, $100,000.

Sioux Falls, S. D.—Plans are being prepared by Harris & Huhl, Arch., Chicago, for the construction of a five-story, 88x150-ft., granite theater for B. M. Giroux, Chicago.

Fargo, N. D.—Bids will be received about July 5 for the construction of a home for nurses' at the St. John's Hospital. Hancock Bros., Douglass Bldg., is Arch. The estimated cost is $60,000.

✚Grand Forks, N. D.—The general contract for the construction of a one-story church for St. Mary's Parish has been awarded to JAMES DINNIE, Grand Forks. The estimated cost is $60,000. Noted Dec. 10.

Butte, Mont.—(Official)—An election will be held July 27 to vote on the question of issuing $100,000 in bonds. The proceeds will be used to complete and improve the county jail. T. McCarthy is Clk., Bd. of County Comrs. Noted May 27.

St. Louis, Mo.—Orean E. and R. G. Scott plan to construct a three-story building at Eighth and Chestnut St. The estimated cost is $50,000. Albert B. Groves, Arch., will be in charge of the construction.

St. Louis, Mo.—Bids will soon be received by G. Albert, Arch., Lansburg-Gunst Bldg., San Francisco, Calif., for the construction of a two-story theater for the Orpheum Theater Co., 1564 Broadway, New York. Estimated cost, $100,000.

Cleveland, Tex.—Plans are being prepared by Lane & Dowdy, Arch., Houston, for the construction of a school. The estimated cost is $40,000. Noted May 13.

SANDUSKY RIVER IMPROVEMENT, TIFFIN, OHIO

✚Bids were received Apr. 20 by the Board of Public Service, Tiffin, Ohio, for the improvement of the Sandusky River. Bids were submitted on three different types of construction, and the contract awarded on Type "B". The bidders were: (A) A. Rabbitt & Sons, Toledo; (B) Frank A. Bone, Cincinnati; (C) John F. Casey Co., Pittsburgh, Penn.; (D) Cleary-White Construction Co., Chicago, Ill.; (E) A. J. Yawger & Co., Indianapolis, Ind.; (F) E. C. Nave Bros., Portsmouth; (G) Charles Fath & Co., Cleveland; (H) Hickey Bros., St. Louis, Mo.; (I) H. J. Zevely, Morgantown, W. Va.; (J) Vang Construction Co., Cumberland, Md.; (K) Dravo Contracting Co., Pittsburgh, Penn.; (L) S. C. Kissner & Sons, Delaware; (M) Fritz-Rumer-Cook-Grant Co., Columbus; (N) J. A. Swingle Contracting Co., Zanesville; (O) Daniel Bros. Construction Co., Bolivar, Ohio; (P) LOUIS JONES, Fostoria (awarded contract); (Q) Modern Construction Co., Fremont; (R) P. T. McCourt, Akron; (S) Tanner & Byrnes, Cincinnati; (T) Duquesne Contracting Co., Pittsburgh, Penn.; (U) Benjamin Douglas Co., Detroit, Mich.; (V) Lakeshore Contracting Co., Cleveland; (W) Harer & Battlefield, Bucyrus; (X) Engineers' Estimate. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K	L
56,900 cu.yd. earth excavation	$0.72	$0.48	$0.50	$0.53	$0.40	$0.45	$0.52	$0.48	$0.48	$0.47½	$0.65	$0.49
1000 cu.yd. rock excavation	3.00	2.60	3.00	3.00	2.00	1.00	2.50	1.50	3.00	3.00	4.00	1.00
8125 cu.yd. concrete	6.55	6.47	6.00	6.00	5.75	6.25	6.10	5.65	6.63	5.92	7.15	5.79
3200 lin.ft. railing	1.50	1.12	1.10	1.50	1.00	0.50	1.00	0.75	0.95	0.75	1.75	0.80
Extended totals	$101,987	$86,065	$83,720	$86,707	$74,679	$78,986	$84,850	$77,118	$87,221	$79,527	$103,679	$78,485
TYPE "B"												
56,900 cu.yd. earth excavation	0.72	0.48	0.50	0.00	0.40	0.45	0.52	0.48	0.48	0.47½	0.65	0.49
1000 cu.yd. rock excavation	3.00	2.60	3.00	0.00	2.00	1.00	2.50	1.50	3.00	3.00	4.00	1.00
4100 cu.yd. concrete	12.00	7.46	7.25	0.00	8.19½	8.27	10.00	7.60	8.63	7.30	10.25	6.80
239,000 lb. ¾-in. steel	0.03	0.02 3/10	0.03	0.00	0.02¾	0.02¼	0.03 3/10	0.02½	0.03¾	0.03½	0.03	0.02½
16,000 lb. ½-in. steel	0.03	0.02 3/10	0.03	0.00	0.02¾	0.02¼	0.03 3/10	0.03	0.03¾	0.03½	0.03½	0.02½
3200 lin.ft. railing	1.50	1.12	1.10	0.00	1.00	0.50	1.00	0.75	0.95	0.75	2.00	0.80
Extended totals	$105,618	$70,967	$72,345	.....	$68,872	$67,849	$84,458	$68,527	$78,297	$69,087	$98,335	$65,696
TYPE "C"												
50,530 cu.yd. earth excavation	0.90	0.48	0.50	0.00	0.40	0.45	0.52	0.48	0.48	0.47½	0.00	0.49
1000 cu.yd. rock excavation	4.00	2.60	3.00	0.00	2.00	1.00	2.50	1.50	3.00	3.00	0.00	1.00
4100 cu.yd. concrete	12.00	7.46	7.25	0.00	8.19½	8.73	9.60	8.15	8.63	7.90	0.00	6.80
239,000 lb. ¾-in. steel	0.03	0.04 3/10	0.03	0.00	0.02¾	0.02¼	0.03	0.02½	0.03¾	0.03	0.00	0.02½
16,000 lb. ½-in. steel	0.03	0.04 3/10	0.03	0.00	0.02¾	0.02¼	0.03	0.03	0.03¾	0.03½	0.00	0.02½
3200 lin.ft. railing	1.50	1.12	1.10	0.00	1.00	0.50	1.00	0.75	0.95	0.75	0.00	0.80
Extended totals	$111,127	$71,989	$69,160	.....	$66,324	$66,869	$78,995	$68,024	$75,240	$69,522	.....	$62,575

	M	N	O	P	Q	R	S	T	U	V	W	X
56,900 cu.yd. earth excavation	$0.60	$0.00	$0.55	$0.40	$0.60	$0.45	$0.48	$0.46½	$0.63	$0.45	$0.00	$0.75
1000 cu.yd rock excavation	2.50	0.75	1.75	1.75	3.50	1.00	2.60	2.00	2.30	2.50	0.00	2.00
8125 cu.yd. concrete	5.95	5.45	5.95	6.50	8.00	6.19	6.00	6.50	5.85	6.00	0.00	5.75
3200 lin.ft. railing	1.00	0.97	0.48½	0.80	0.50	1.50	1.25	0.75	0.80	0.65	0.00	0.90
Extended totals	$88,184	.....	$82,941	$79,882	$104,240	$81,699	$82,662	$83,671	$88,238	$78,935	.....	$94,334
TYPE "B"												
56,900 cu.yd. earth excavation	0.60	0.00	0.55	0.40	0.60	0.45	0.48	0.46½	0.63	0.45	0.66	0.75
1000 cu.yd. rock excavation	2.50	0.75	1.75	1.75	3.50	1.00	2.60	2.00	2.30	2.50	2.50	2.00
4100 cu.yd. concrete	8.00	7.68	8.39	6.75	12.00	8.47	9.40	9.88	8.65	8.00	7.45	7.50
239,000 lb. ¾-in. steel	0.03	0.02½	0.02½	0.02½	0.04½	0.04½	0.02¼	0.02¾	0.02½	0.03	0.02½	0.02½
16,000 lb. ½-in. steel	0.03	0.02½	0.02¾	0.02½	0.04	0.02½	0.02¼	0.02¾	0.02 6/10	0.03	0.02¾	0.02½
3200 lin.ft. railing	1.00	0.97	0.48½	0.80	0.50	1.50	1.25	0.75	0.83	0.65	0.70	0.90
Extended totals	$80,290	.....	$75,391	$61,120	$98,640	$72,507	$78,189	$78,379	$82,659	$70,635	$79,214	$84,680
TYPE "C"												
50,530 cu.yd. earth excavation	60.00	0.00	0.55	0.40	0.60	0.45	0.48	0.46½	0.63	0.45	0.00	0.75
1000 cu.yd. rock excavation	2.50	0.75	1.75	1.75	3.50	1.00	2.60	2.00	2.30	2.50	0.00	2.00
4100 cu.yd. concrete	8.30	7.68	8.48	6.75	12.00	8.47	9.65	9.88	8.80	8.25	0.00	7.50
239,000 lb. ¾-in. steel	0.03	0.02½	0.02½	0.03	0.04	0.02½	0.02¼	0.03¼	0.02½	0.03	0.00	0.02½
16,000 lb. ½-in. steel	0.03	0.02½	0.02¾	0.02½	0.04	0.02½	0.02¼	0.03¾	0.02 6/10	0.03	0.00	0.02½
3200 lin.ft. railing	1.00	0.97	0.48½	0.80	0.50	0.00	1.25	0.75	0.00	0.65	0.00	0.90
Extended totals	$81,520	.....	$75,760	$59,767	$94,818	$64,840	$76,157	$76,692	$80,618	$71,660	.....	$79.902

Palestine, Tex.—An election will be held in this city July 2 to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for the construction of a high school.

Tulsa, Okla.—Bids will be received by A. W. Black & Son, Arch., Architects and Superintendents Security Bldg., St. Louis, Mo., for the construction of an eight- or ten-story, 50x140-ft., reinforced-concrete and brick office building, for S. Gallais. The estimated cost is $150,000. Noted June 3.

Mountain Home, Idaho—At a recent election the citizens voted against the question of issuing $50,000 in bonds, the proceeds of which was to have been used for the construction of a county court house. Noted May 6.

Tacoma, Wash.—Plans will soon be prepared for the construction of a five-story building for Nelson Bark. Estimated cost, $50,000.

Monmouth, Ore.—John V. Bennes, Arch., Portland, is preparing plans for the construction of a training school. The legislature has appropriated $50,000 for this work. J. Churchill is State Supt. of Schools. Noted Jan. 7.

Portland, Ore.—Plans have been prepared by Doyle & Patterson, Arch., Worcester Bldg., for the construction of a group of buildings for St. Helens Hall. The group will include a chapel, two-story school and a three-story dormitory. Estimated cost, $100,000. Noted Dec. 3.

Anaheim, Calif.—John Zeigler will construct a four-story hotel. The estimated cost is $45,000.

Berkeley, Calif.—Bids have been received for the construction of a concrete school on Telegraph Ave. between Stuart and Ward St. The estimated cost is $90,000.

Gilroy, Calif.—The Odd Fellows Lodge contemplates the construction of an addition to the orphans home. The estimated cost is $100,000.

Los Angeles, Calif.—Plans have been prepared by Rea & Garstang, Arch., for the construction of a grammar school in the shape of the letter "T" at Budlong Ave. near 59th St. Estimated cost, $50,000.

✚**Los Angeles, Calif.**—The LOS ANGELES PLANING MILL CO., 1812 Industrial St., Los Angeles, at $134,616, has been awarded the general contract for the construction of buildings for the Franklin High School on Ave. 54 between Irvington Pl. and Hub St. Noted May 20.

Oakland, Calif.—The Bishop Theater Co. will construct a theater and office building at Franklin near 14th St. The estimated cost is $100,000. Noted Mar. 11.

Oakland, Calif.—T. H. Williams will construct a ten-story store and hotel building at William St. and San Pablo Ave. The estimated cost is $100,000.

Oakland, Calif.—Bids will be received about July 5 by the Board of Supervisors for the construction of a two-story, juvenile court and detention home on 18th St. between Union and Poplar St. The estimated cost is $75,000. Henry Meyers is Arch.

Oakland, Calif.—Sommarstrom Bros. will construct a four-story apartment house at Alice and 14th St. Estimated cost, $75,000. Richardson & Burell is Arch.

Owensmouth, Calif.—C. W. Kent & Son, Glendale, at $62,200, submitted the lowest bid on the general contract for the construction of the Owensmouth High School. Dennis & Hewitt, 618 Fay Bldg., Los Angeles, is Arch. Noted May 27.

Sacramento, Calif.—The Gerard Investment Co. will construct a five-story store and hotel building on Fourth St. near Howard St. Estimated cost, $65,000. Rousseau & Rousseau, 110 Sutter St., San Francisco, is Arch.

✚**San Francisco, Calif.**—The Regents of the State University have awarded contracts for the foundation work and fireproofing for the hospital at the Affiliated Colleges, University of California, Second and Parnassus Ave., to the CLINTON FIREPROOFING CO. OF CALIFORNIA, Mutual Bank Bldg., San Francisco, at $67,875. Noted Apr. 8.

London, Ont.—T. E. Karn, Mgr., Royal Bank, London, is having plans prepared for the construction of a five-story building. The estimated cost is $125,000.

Toronto, Ont.—Plans have been approved by the Canadian Pacific Ry. and the Canadian Northern Ry. for the construction of the new Union Station at North Toronto. The cost is estimated at $1,000,000. M. H. MacLeod, Winnipeg, Man., is Gen. Mgr. and Ch. Engr. of the Canadian Northern Ry. Noted Jan. 21 and May 6.

SEWAGE TREATMENT PLANT—RITTMAN, OHIO

✚Bids were received May 25 by Vance Hickin, Clk., for the construction of a sewage-treatment plant from (A) Thomas P. Egan, Cleveland, (B) W. S. Newhall, Cleveland, (C) C. A. PIERCE, Rittman (awarded contract), (D) Kent Construction Co., Kent, (E) T. Wildeson, Mansfield, (F) Pitt Construction Co., Pittsburgh, Penn., (G) J. N. Bick, Toledo, (H) Duquesne Construction Co., Pittsburgh, Penn., (I) J. C. Devine Co., Alliance, (J) C. N. Haggart, Pittsburgh, Penn., (K) Lowensohn & Ule, Cleveland, (L) R. T. Bailey, Kent, (M) W. H. Ralston, Mt. Vernon. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M
5214 cu.yd. earth excavation	$0.44	$0.55	$0.30	$0.39	$0.65	$0.60	$0.60	$0.70	$0.70	$1.00	$0.50	$0.59	$0.75
3342 cu.yd. rolled embankment	.10	.18	.10	.15	.10	.20	.15	.25	.25	.20	.25	.24	.20
446 cu.yd. plain concrete	6.25	7.20	8.25	7.82	6.50	8.00	8.00	9.50	10.00	6.50	9.00	7.75	8.00
290 cu.yd. reinforced concrete	11.50	14.40	11.50	17.80	15.00	12.00	13.50	16.00	18.00	12.00	18.50	15.00	15.00
6900 cu.yd. filtering material, Class "A" sand	1.96	1.68	1.53	1.70	1.80	1.60	1.50	1.75	1.70	1.60	1.60	1.25	1.66
1220 cu.yd. filtering materialClass "B" gravel	2.30	1.92	1.85	2.00	1.80	1.80	1.65	2.00	2.00	1.80	1.70	1.25	1.90
4660 lin.ft. vitrified pipe 4 in.	.09	.14	.08	.07	.12	.10	.15	.18	.10	.09	.12	.17	.12
408 lin.ft. vitrified pipe 6 in.	.14	.17	.12	.13	.16	.15	.30	.20	.15	.27	.15	.30	.15
372 lin.ft. vitrified pipe 8 in.	.19	.21	.16	.18	.20	.20	.35	.25	.15	.22	.20	.40	.20
268 lin.ft. vitrified pipe 10 in.	.26	.40	.22	.22	.28	.25	.40	.30	.25	.35	.25	.60	.25
1355 lin.ft. vitrified pipe 12 in.	.37	.46	.65	.26	.30	.30	.45	.42	.35	.40	.30	.90	.35
500 lin.ft. vitrified pipe 15 in.	.49	.83	.84	.47	.40	.40	.50	.70	.40	.70	.40	1.00	.35
1200 lin.ft. drain tile 4 in.	.04	.08	.04	.06	.10	.05	.06	.08	.10	.09	.06	.18	.10
2 brick manholes with appurtenances	45.00	30.00	50.00	26.00	35.00	35.00	45.00	40.00	30.00	46.00	30.00	40.00	50.00
35 tons C. I. B. & S. pipe	52.00	50.00	37.00	60.00	40.00	60.00	60.00	65.00	40.00	66.00	70.00	50.00	60.00
80 lin.ft. w.i. pipe 1¼ in.	1.03	.20	.75	.25	.10	.50	.40	.25	.50	.60	.15	.37	.15
100 lin.ft. w.i. pipe 1 in.	.30	.15	.50	.22	.10	.30	.40	.25	.50	.30	.12	.35	.15
Gate valves and shear gates	580.25	560.00	800.00	18.00	681.75	650.00	821.00	750.00	800.00	800.00	600.00	800.00	800.00
Miscellaneous and wood work (lump sum)	1252.81	1645.00	1000.00	932.00	698.60	1000.00	1425.00	660.00	1200.00	1400.00	1300.00	500.00	1750.00
Controlling apparatus (lump sum)	714.00	720.00	625.00	700.00	750.00	600.00	800.00	615.00	700.00	750.00	700.00	800.00	1000.00
Pumps and pumping equipment (lump sum)	1453.72	1200.00	1000.00	1300.00	1217.50	1300.00	1400.00	1175.00	1500.00	2100.00	1300.00	1800.00	1000.00
Pump house (lump sum)	605.00	660.00	500.00	700.00	407.75	1000.00	525.00	500.00	500.00	600.00	800.00	1900.00	450.00
Per lb. additional reinforcing steel	.025	.04	.06	.04	.03	.03	.15	.05	.05	.035	.04	.06	.025
Per M ft. additional lumber	60.00	75.00	70.00	50.00	40.00	30.00	60.00	100.00	60.00	40.00	50.00	52.00	30.00
Per M ft. sheeting and shoring in place	30.00	30.00	40.00	45.00	35.00	25.00	60.00	50.00	50.00	35.00	25.00	60.00	15.00
Extended totals	$33,120	$33,458	$29,046	$32,362	$32,332	$32,205	$32,699	$35,683	$36,029	$35,332	$34,609	$32,689	$35,027

CALCASIEU RIVER BRIDGE, LAKE CHARLES, LA.

✚Bids were received June 1 by the Police Jury of Calcasieu Parish, Lake Charles, La., for the construction of a bridge, consisting of six reinforced-concrete spans and a Strauss bascule span, over the Calcasieu River from: (A) MISSOURI VALLEY BRIDGE & IRON CO., Leavenworth, Kan., and FRUIN-COLNON CO., St. Louis, Mo. (awarded contract for reinforced-concrete spans); (B) Hardaway Contracting Co., (C) Midland Bridge Co.; (D) Hackedorn Contracting Co.; (E) FEDERAL BRIDGE CO., Waukesha, Wis., and MISSOURI VALLEY BRIDGE & IRON CO. (awarded contract for bascule span); (F) Penn Bridge Co., (G) Sterling Engineering Co.; (H) Vincennes Bridge Co. The item bids were as follows:

Reinforced-concrete Arches	A	B	C	D
1544 cu.yd. concrete, 1-2-4	$12.60	$11.50	$19.00	$32.50
1846 cu.yd. concrete, 1-3-6	11.60	15.75	25.50	26.50
161,300 lb. steel reinforcement	0.03	0.02¼	0.0336	0.03
14,240 lin.ft. wooden piling	0.50	0.50	0.75	0.50
1465 sq.yd. bituminous pavement	0.75	1.50	0.95	1.40
Extended totals	$53,924	$81,319	$93,900	$113,109

Strauss Bascule Span	E	B	C	F	G	H
168,000 lb. structural steel	$0.0365	....	$0.042	$0.041	$0.0375	$0.039
22,500 lb. machinery steel	0.10	....	0.138	0.11	0.135	0.16
Erection (lump sum)	9532.00	.....	13,400.00	10,900.00	13,141.00	13,562.00
Additional scrap metal, per ton	20.00	.....	20.00	17.00	12.00	12.00
Extended totals	$17,914	$21,311	$23,561	$22,263	$22,378	$23,714

CATALOG NOTICES

The Studebaker Corporation, South Bend, Ind. Serial No. 994. Clean Streets. Illustrated, 5x8 in.

The Q. & C. Co., 90 West St., New York. Catalog. Ross-Schofield System of Circulation for Locomotive Boilers. Illustrated, 16 pp., 9x12 in.

Sullivan Machinery Co., 122 S. Michigan Ave., Chicago, Ill. Bulletin No. 66-G. Air-feed stoping drills. Illustrated, 12 pp., 6x9 in. Blue Booklet No. 115. Air compressors. Illustrated, 32 pp., 3x5½ in.

Smith Engineering Works, Milwaukee, Wis. Catalog No. 254. Rock, ore and gravel handling machinery. Illustrated, 46 pp., 6x9 in.

Koehring Machine Co., Milwaukee, Wis. Catalog No. 20. Concrete mixers, bar benders, bar cutters. Illustrated, 96 pp., 7½x10½ in.

Lackawanna Steel Co., Lackawanna, N. Y. Bulletin No. 108. Steel sheet piling. Illustrated, 78 pp., 8x10½ in.

Link-Belt Co., Philadelphia, Penn. Bulletin No. 221. Circular storage system for storing coal, stone, etc. Illustrated, 4 pp., 6x9 in.

The Humphreys Mfg. Co., Mansfield, Ohio. Catalog No. 102. Hand and power water supply systems. Illustrated, 64 pp., 6x9 in.

Scranton Pump Co., Scranton, Penn. Bulletin No. 102. Duplex plunger pumps. Illustrated, 12 pp., 6x9 in.

Chicago Pneumatic Tool Co., Fisher Building, Chicago, Ill. Instructions for installing and operating Class N-SO fuel oil driven compressors. Illustrated, 24 pp., 6x9 in.

Keuffel & Esser Co., Hoboken, N. J. Circular, Brunton slope chart. Illustrated.

Contracts to Be Let

Bids received until June 29, 1915.

Water-Works, Pump Station, Reservoir and Mains

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council, at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard Time, of the 29th day of June, 1915, and then publicly opened and read, for the construction of a Water-Works for the Village.

The work to be done includes the construction of a pump station, 200,000-gallon reinforced-concrete reservoir, and approximately 8 miles of water mains, 4" to 8" in size.

Bids will be made on the work as a whole.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of the proposal, or by a bond with surety satisfactory to the Village Council.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Copies of the plans, proposal forms, specifications and forms of bonds and contract can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Ten ($10.00) Dollars with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded upon the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned. Copies of the specifications alone may be obtained upon depositing Two ($2.00) Dollars.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bids which it deems most favorable to the Village of Rittman, Ohio.

By order of the Village Council.

VANCE HICKIN, Clerk.

⁂

Bids received until June 22, 1915.

Sewerage Extensions

Scarsdale, New York.

Sealed Proposals, for the construction of sewerage extensions in Scarsdale, New York, will be received until 8 P.M. on June 22, 1915, and will then be publicly opened and read by the Sewer Commissioners, or their successors, at a meeting to be held in the Town Hall of Scarsdale.

Plans and specifications may be seen, and blank forms of proposal obtained, at the office of Waring, Chapman & Farquhar, civil engineers, 874 Broadway, New York City.

A charge of $3.00 will be made for plans and specifications furnished to applicants therefor.

Each proposal must be made on one of the blank forms provided, and must be accompanied by a certified check.

The proposed work is in three divisions, for which contracts may be awarded separately, or for two or all divisions.

The approximate quantities, amount of certified check, and time to be allowed for construction, are as follows:

Division A: 4200 lineal feet of 8" and 10" sewers.
Check $500.00. Time, 3 months.
Division B: 3700 lineal feet of 8" sewers.
Check $500.00. Time, 3 months.
Division C: 15,600 lineal feet of 8" and 10" sewers.
Check $1,000.00. Time, 5 months.

The amount of bond for faithful performance, to be furnished when the contract is executed, is to be the same amount as the total contract price for the work, as computed from the accepted bid or bids.

The Sewer Commissioners reserve the right to reject any or all bids.

JOHN R. ROSS,
ALBERT C. DAVIS,
GEORGE A. HARWOOD,
Sewer Commissioners of Sewer District No. 1,
Town of Scarsdale, New York.

Bids received until June 29, 1915.

Water-Works Pumping Equipment

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council, at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard Time, of the 29th day of June, 1915, and then publicly opened and read, for Water-Works Pumping Equipment.

The work to be done includes a 50 H.P. horizontal gas engine, a triplex pump of 400 gallons per minute capacity, 2 air compressors, motor driven multi-stage centrifugal pump, of 200 gallons per minute capacity, and other necessary pumping equipment.

Bids will be made on the work as a whole.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of proposal, or by a bond with surety satisfactory to the Village Council.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Copies of the plans, proposal forms, specifications and forms of bonds and contract can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Five ($5.00) Dollars with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded upon the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned. Copies of the specifications alone may be obtained upon depositing Two ($2.00) Dollars.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bids which it deems most favorable to the Village of Rittman, Ohio.

By order of the Village Council.

VANCE HICKIN, Clerk.

⁂

Bids received until July 7, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. on Wednesday, the 7th day of July, 1915, for the repair of highways in the following counties:

Albany (two contracts—resurfacing); Broome (one contract); Cayuga (two contracts—Resurfacing and Surface Treatment); Columbia (4 contracts—Surface Treatment); Delaware (one contract—Surface Treatment); Dutchess (one contract—Resurfacing); Erie (one contract—Resurfacing); Franklin (one contract—Surface Treatment); Greene (one contract—Surface Treatment); Herkimer (one contract—Resurfacing); Madison (one contract—Resurfacing); Monroe (one contract—Resurfacing); Oneida (5 contracts—Resurfacing and Surface Treatment); Ontario (two contracts—Resurfacing and Surface Treatment); Orange (one contract—Surface Treatment); Rensselaer (one contract—Resurfacing); Rockland (two contracts—Resurfacing); Saratoga (one contract—Resurfacing); St. Lawrence (two contracts—surface treatment); Schenectady (one contract—Surface Treatment); Suffolk (one contract—Surface Treatment); Westchester (one contract—Surface Treatment).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose divisions the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

RAILWAYS—STEAM AND ELECTRIC

Massachusetts—Lowell & Fitchburg St. Ry. Co.—This company has received a franchise from the City Council to extend its tracks on Main St., Ayer, to connect with the Ayer terminus of the Shirley-Ayer line of the Fitchburg & Leominister St. Ry. Co., Fitchburg. L. H. Cushing is Gen. Mgr. and Pur. Agt.

New York—Plans are being considered by O. P. Brown, Olean, and associates for the construction of an electric railway along the Hackell Rd., from Olean to Cuba.

New York—International Ry. Co.—This company has received from the City Council a five-year extension of time on its franchise to extend its line on Military Rd. to the Velodrome, Kenmore. J. C. Sheldon is Pur. Agt.

New York—The Oval Disk Co., Port Henry, N. Y., is having surveys made for the construction of a 25-mile railway from Tupper Lake to Ampersand Pond to open up its timber lands.

New York—Poughkeepsie City & Wappinger Falls Electric Ry. Co.—This company plans to expend about $150,000 for the reconstruction and extension of its double-track line on Main St., Poughkeepsie. Charles A. Brooks, Poughkeepsie, is Local Mgr.

Pennsylvania—According to press reports the County Commissioners have granted a franchise to the Eastern Pennsylvania Ry. and the Schuylkill Electric Co. to construct and operate jointly an electric railway from Pottsville, Penn., over Broad Mountain.

Pennsylvania—Pittsburgh Ry. Co.—This company has applied to the City Council of Pittsburgh for a franchise to construct a single track on Diamond St. from Grant to Wood St., a double track from Try to Grant St. and for connections to be made with existing tracks on Forbes, Grant, Smithfield and Wood St. P. N. Jones, Pittsburgh, is Gen. Mgr.

Maryland—The Commissioners of Baltimore County contemplate granting a franchise for the construction of an electric railway on Regester Ave. from York Rd. to Idlewylde Park, Towson, Md.

North Carolina—Alamance, Durham & Orange Ry.—The citizens of Burlington, N. C., have voted to issue $100,000 in bonds to aid this company construct its proposed electric railway from Ossipee to Durham. Junius Harden, Burlington, is interested. Noted Mar. 18.

North Carolina—According to press reports a company is being organized to construct an electric railway out of Rutherford, N. C.

Georgia—Central of Georgia Ry.—This company contemplates constructing a second track on its line from Savannah to Tybee Island. C. K. Lawrence, Savannah, is Ch. Engr.

Georgia—The Henderson Lumber Co. has purchased the line of the Ocilla, Pinebloom & Valdosta R.R., about 11 miles long. The new owner contemplates the extension of the line from Lax to Ocilla, Ga., about 15 miles, and from Pinebloom to Homerville, about 28 miles. J. A. J. Henderson, Ocilla, is Pres.

Georgia—Midland Ry.—We are informed officially that the line of this company, which is being built from Savannah, may be operated by gasoline propelled passenger equipment, and information as to such equipment is desired. George M. Brinson, Savannah, Ga., is Pres. Noted May 6.

Florida—Jacksonville Traction Co.—The City Council of Jacksonville has granted permission to this company to construct an extension to its line along Kings Rd. Hardy Croom, Jacksonville, is Local Mgr. and Pur. Agt.

Alabama—Plans are being considered by W. W. Shortridge, Birmingham, and associates for the construction of an electric railway in Jefferson County from Birmingham to the Warrior River, about 25 miles.

Louisiana—F. T. Constant and associates contemplate the construction of a electric railway in Alexandria, La.

Tennessee—Nashville, Springfield & Northern R.R.—This company has been chartered to construct an interurban railway from Nashville, Tenn., to Franklin, Ky. E. G. Stribling, Nashville, is Pres. and Robert C. Leonard, Nashville, is Secy. Noted June 17.

Kentucky—Cumberland R.R.—We are advised that this company has not definitely concluded when construction work will be resumed on its line from Warren, Ky., to Jellico, Tenn., on account of financial conditions. T. H Hayden, Artemus, Ky, is Gen. Mgr Noted June 10.

Ohio—The Lake Erie & Youngstown Construction Co., recently incorporated, will soon start work on the construction of the proposed railway from Youngstown to Conneaut. John B. Ruhlman is interested.

Ohio—Lancaster Traction & Power Co.—Plans are being made by this company for the construction of a two-mile extension to its line in Lancaster, Ohio. H. B. Peters, Lancaster, is Pres., Gen. Mgr. and Pur. Agt.

Indiana—According to press reports there is a movement on foot to construct an electric railway from Evansville to Terre Haute in connection with the proposed Dixie Bee Line Highway, which will connect Chicago, Ill., Terre Haute, Evansville, Henderson, Ind., and Nashville, Tenn.

Michigan—Detroit, Pontiac & Owosso Ry.—This company has applied to the City Council for a franchise to build a railway in Pontiac. This is part of a plan to construct a railway from Owosso to Detroit. George H. Lau, Detroit, is interested. Noted Aug. 6.

Wisconsin—Chicago & Wisconsin Valley Ry.—This company is making preliminary arrangements and will soon start work on the construction of its proposed electric railway from Madison to Janesville. J. E. Jones, Madison, is Pres.

Iowa—Iowa Ry. & Light Co.—This company is considering plans to extend its line from Cedar Rapids to Jefferson. J. D. Wardle, Cedar Rapids, is Supt. Ry. Dept. and Ch. Engr.

South Dakota—Huron & Northwestern Ry.—Preliminary arrangements are being made by this company for the construction of its proposed railway to connect Huron, S. D., and Hankinson, N. D. F. W. Henderson, Summit, S. D., is interested. Noted Apr. 29.

North Dakota—Huron & Northwestern Ry.—See item under South Dakota.

Wyoming—Chicago, Burlington & Quincy R.R.—This company, according to press reports, is making surveys for the construction of a line from Islay, Wyo., to Ft. Collins, Colo., where a connection with the Denver, Laramie & Northwestern Ry. will be made. F. T. Darrow, Lincoln, Neb., is Ch. Engr.

Missouri—The Mexico Investment & Construction Co. plans to construct a 14-mile electric railway southwest from Mexico, Mo., if a bonus of $30,000 can be obtained.

Texas—C. O. Williams, Corpus Christi, and Charles H. Regan, Beeville, are making preliminary preparations for the construction of a railway to connect Beeville, Cadiz, Oakville and Three Rivers, about 25 miles.

Texas—Atchison, Topeka & Santa Fé Ry.—It is reported that this company will soon start work on the construction of its proposed extension from Slaton to Lamesa and Sterling City. F. M. Bisbee, Amarillo, Tex., is Ch. Engr. Western Lines.

Texas—Ft. Worth & Denton Interurban Ry.—This company plans to start work soon on the construction of its proposed electric railway from Ft. Worth to Denton. Noted June 25, 1914.

Texas—Texas Traction Co.—This company has abandoned construction on the extension of its line from Waco to Austin. The work will not be undertaken until financial conditions improve. R. B. Stichter, Dallas, is Gen. Mgr.

Arizona—Globe & Miami Traction Co.—This company has received from the City Council six months' extension of time on its franchise to build a line between Globe and Miami. L. L. Litchfield is Pres.

Washington—Hartford & Eastern Ry.—This company, owned by Rucker Bros., Everett, has leased the Monte Cristo branch of the Northern Pacific line, running between Everett and Monte Cristo, and will operate same as common carrier. A number of improvements will be made to the properties.

California—Industrial Terminal R.R.—This company has been incorporated to construct railways in various counties of California. The first line to be built will be in Los Angeles, from Alameda St. to the Los Angeles River. The directors are L. E. Hanchett, Pres.; E. W. Taylor, Treas.; S. Smith, E. B. Carroll and G. E. Newlin.

✚Ontario—Lake Huron & Northern Ry.—This company has awarded the contract for the construction of its proposed railway from Sault Ste. Marie to a point on the Grand Trunk Pacific Ry. to the NATIONAL ENGINEERING CO., Marshall Bldg., Cleveland, Ohio. Estimated cost, $20,000,000.

LIGHT, HEAT AND POWER

✚Turners Falls, Mass.—The Turners Falls Co. has awarded the contract for the second half of its dam in the Connecticut River to FREDERICK T. LEY & CO., INC., Springfield. About 12,000 cu.yd. of concrete will be required.

★Middletown, N. Y.—(Official)—Bids will be received until 2:30 p.m., June 29, by E. S. Elwood, Secy. State Hospital Comn., Capitol, Albany, for power house equipment, construction, heating, plumbing and electrical work at the Middletown State Homeopathic Hospital, Middletown.

New York, N. Y.—(Borough of Manhattan)—Bids will be received until June 28 by C. B. J. Snyder, Supt. of School Bldgs., Park Ave. and 59th St., for additions, alterations and repairs to the electrical equipment in Public Schools 5, 48, 68, 103, 159 and 186, Borough of Manhattan.

✚New York, N. Y.—(Borough of Brooklyn)—Bids were received June 14 by the Department of Health for the plumbing and gasfitting of a pavilion on the grounds of the Kingston Ave. Hospital, Borough of Brooklyn, as follows: Harley Plumbing Co., $5477; James Abroms & Bros., $5662; T. E. O'Brien, $4973; J. J. KENNEY, 262 West 20th St., New York, $4795 (awarded contract); W. Young, $5248; G. E. Gibson, $5190; Wells & Newton, $5791.

✚New York, N. Y.—(Borough of Brooklyn)—Bids were opened June 14 by the Department of Health for the steam-heating plant of a pavilion on the grounds of the Kingston Ave. Hospital, Borough of Brooklyn, as follows: G. E. Gibson, $4945; Wells & Newton, $5143; Adams Witz, $5181; M. J. Callahan, $4879; Philp & Paul, $5937; W. J. OLVANY, 177 Christopher St., New York, $4200 (awarded contract); Walker & Chambers, $4757.

Harrison, N. J.—It is reported that the Public Service Electric Co. will install new underground conduits in Fourth St., Harrison. The estimated cost is $35,000.

Hoboken, N. J.—(Official)—Bids will be received until July 7 by the Board of City Commissioners for lighting the streets and public places for a period of one, three, or five years from July 14, 1915.

Paterson, N. J.—The Board of Education has engaged Lewis E. Eaton, Consult. Engr., to prepare plans for an electric-light and power plant for the High School. An appropriation of $5000 has been made for the purpose.

Franklin, Penn.—It is announced that the Atlantic Refining Co. will spend about $300,000 in installing an entire new boiler system at the Eclipse Oil Works, Franklin. A new building and smokestack with smoke-consuming equipment will be included. The boilers will be of the water-tube type, about 8000 hp.

+Philadelphia, Penn.—The Board of Education has awarded the contract for the installation of a heating system in the Lynde School to THOMPSON BROS., 125 North Fifth St., Philadelphia, at $15,500.

+Pittsburgh, Penn.—The Department of Charities has awarded contracts in connection with the construction of a new wing to the asylum for insane men at the City Poor Farm, Marshalsea, to the following: BERKLE CO., $23,297 for plumbing apparatus; BURNS FLEMING & CO., 815 Forbes St., Pittsburgh, $32,740 for heating plant; EASTERN ELECTRIC CO., 6016 Center Ave., Pittsburgh, $7909 for electrical work.

+Baltimore, Md.—The Hebrew Hospital, Monument St. and Broadway, has awarded the contract for the construction of a fireproof power house to JOHN WATERS, 23 East Center St., Baltimore; the contract for equipment, including two 250-hp. water-tube boilers, directly connected to 100-kw. generator, switchboard, high-pressure steam and exhaust piping, and incidentals, was awarded to CROOK. KRIES & CO., 28 Light St., Baltimore. Smith & May, 921 Equitable Bldg., is Arch.

Cordele, Ga.—The City Council will engage an engineer to prepare plans and estimates for the construction and operation of a municipal electric-light plant.

Sylacauga, Ala.—Bids will be received until 6 p.m., June 29, by J. E. Jordan, City Clk., for the construction of a concrete dam, about nine ft. high and 250 ft. long, at the municipal hydro-electric plant at Hatchett Creek, 16 miles from Sylacauga. The estimated cost is $5000.

Cuyahoga Falls, Ohio—The Falls Rubber Co., Cuyahoga Falls, is having plans prepared for a one-story brick and steel power house. Ernest McGeorge, Leader-News Bldg., Cleveland, is Engr.

Fremont, Ohio—The receivers of the Sandusky River Power Co. have applied to the Public Utilities Commission for permission to issue $700,000 in bonds and $100,000 in preferred stock. This is a preliminary step toward reorganizing the company, and adding a $500,000 auxiliary steam plant to the hydro-electric plant now in operation. The name of the company will be changed to the Ohio State Power Co. Noted June 17.

+Fremont, Ohio—Press reports state that the Ohio State Power Co. has awarded the contract for the auxiliary steam power plant at Ballville to the WORDEN-ALLEN CO., Chicago. The equipment will include three 6250-kw. steam turbines, four 150-hp. boilers, mechanical stokers and a fuel-handling crab. See preceding item.

Marietta, Ohio—Tentative estimates have been submitted to the City Council of the cost of establishing a municipal electric-light plant. The figures range from $65,000 to $68,000, including the building. A. G. Stevens is City Clk. Noted June 3.

Wellsville, Ohio—The City Council is preparing to advertise for bids for the sale of $60,000 in bonds, the proceeds of which will be used for the construction of a municipal electric-light plant.

Cheboygan, Mich.—It is reported that the Cheboygan Electric Light & Power Co. is considering the construction of a new power plant on the Black River, removing the present plant from the middle of the river to the shore. The estimated cost of the work is $75,000. F. B. Spencer is Secy. and Treas.

Grand Rapids, Mich.—It is reported that bids will be received until July 12 for the construction of a power house for the Imperial Furniture Co. The Wernette-Bradfield-Meade Co., Grand Rapids, is Engr.

Lowell, Mich.—The Hydro-Electric Power Co., Lowell, is reported to be contemplating extensions to its power station. The Wernette-Bradfield-Meade Co., Grand Rapids, prepared the plans.

Petoskey, Mich.—It is reported that the city is having plans prepared for rebuilding the municipal electric-light plant. J. W. Lovelace is Mgr. and Supt. of the plant.

+Appleton, Wis.—The Wisconsin Traction, Light, Heat & Power Co. has awarded the contract for the construction of an addition to its plant to the WHEELER CONDENSER & ENGINEERING CO., 149 Broadway, New York, N. Y., at about $500,000. The new addition will increase the capacity by 17,000 hp.

+Madison, Wis.—The Wisconsin River Power Co., Madison, has awarded the contract for 700 tons of steel for towers of the transmission line between Madison and Prairie du Sac, to the AMERICAN BRIDGE CO., 30 Church St., New York, N. Y.

Shawano, Wis.—It is reported that plans are being prepared for a $40,000 power house for the municipal water and electric-light plant. The Power Engineering Co., Minneapolis, Minn., is Engr.-in-Charge.

Des Moines, Iowa—The Continental Gas & Electric Corporation is having plans prepared for the construction of a central heating and lighting plant. The estimated cost is $300,000. W. H. Abbott, 401 Manhattan Bldg., Des Moines, is Engr.

Knoxville, Iowa—It is reported that the Des Moines Electric Co., Des Moines, contemplates the construction of a 44,000-volt transmission line to Knoxville to furnish energy to the Knoxville Electric Co.

Owatonna, Minn.—The State Board of Control has plans for the construction of a two-story, 50x80-ft. power house. It will cost about $25,000. C. L. Pillsbury, 805 Metropolit Life Bldg., Minneapolis, is Engr. Downer Mullen, St. Pau is Secy. Bd. of Control.

Hutchinson, Kan.—Press reports state that the Unite Water, Gas & Electric Co. will enlarge the boiler room o its power plant to double the present capacity.

Broken Bow, Neb.—(Official)—See item under "Water Supply-Irrigation."

Davenport, Neb.—(Official)—Bids will be received unti July 1 by the City Council for the installation of an electric light plant. The estimated cost is $5000. Charles F. Sturtevant, Holdrege, Neb., is Consult. Engr. Noted June 17.

Holdrege, Neb.—The City Council has granted a 25-yea extension of the franchise of the Holdrege Lighting Co. Th company has agreed to reduce its rates for furnishing electricity for lighting and commercial purposes, and will mak a number of improvements in its plant.

Milbank, S. D.—Bids will be received until July 2 by E. M. Harper, Audr. of Grant County, for heating, plumbing and electrical work in the new county court house in Milbank.

Chillicothe, Mo.—(Official)—Bids will be received until 2 p.m., July 15, by John A. Ryan, Secy., Bd. of Pub. Wks., for installing the following equipment in the municipal electric-light plant: One 375-kw. three-phase, 60-cycle, 2300-volt generator, direct-connected to a steam engine or steam turbine to operate condenser, with separate exciter, switchboard panel and instruments, power circuit panel, etc.; one 500 g.p.m. motor-driven centrifugal pump for use with condenser and one 12-in. barometric condenser, one 12-in. oil separator, and necessary pipe, valve fittings, etc., to install the pump and condenser. C. F. Adams is Pres., Bd. of Pub. Wks. Harper & Stiles, Grand Ave. Temple, Kansas City, is Consult, Engr.

Lowry City, Mo.—Henry S. Grimes has made application to the City Council for a franchise to install and operate an electric-light plant in Lowry City.

El Campo, Tex.—The Central Service Co. has been organized with a capital stock of $200,000, for the purpose of building and operating an electric-light and power plant and an ice factory. P. J. Hardy is interested.

Galveston, Tex.—It is reported that the Texas Power & Light Co., Dallas, has purchased the property of the Galveston Gas Co. at approximately $1,000,000. The new owner plans to improve the plant and extend the distribution lines. R. F. Slater, Dallas, is Gen. Mgr. of the Texas Power & Light Co.

Marshall, Tex.—The Marshall Electric Co. contemplates the construction of a system of transmission lines in the vicinity. The first one planned will extend from the central station at Marshall to Jefferson, a distance of 15 miles. H. M. Long, Marshall, is Supt. of Overhead Const.

Soda Springs, Idaho—At a recent election the citizens approved a bond issue of $15,000, the proceeds of which will be used for the construction of a municipal electric-light plant.

+Ellensburg, Wash.—The City Council has awarded the contract for rebuilding the municipal power plant to W. A. KRANER & CO., Portland, Ore., at about $59,000. Noted May 13 and 27.

Hood River, Ore.—The State Engineer, Salem, has granted permission to August Guighard, Hood River, to appropriate water from the Hood River for the operation of a hydro-electric plant to be constructed at a cost of about $300,000.

Burbank, Calif.—The citizens have voted an issue of $25,000 in bonds for the purpose of constructing a municipal electric-light plant and distributing sytsem.

Dorchester, Ont.—The Town Council will construct a new distribution system at a cost of about $5000. Power for its operation will be obtained from the Ontario Hydro-Electric Commission.

BRIDGES

★Siam—(Official)—The Siamese Royal Railway Department is receiving bids for the construction of three steel viaducts. Plans and specifications may be had from the Siamese Legation, Gloucester, Mass.

+Beverly, Mass.—The Board of Aldermen has awarded the contract for the construction of a bridge over the tracks of the Boston & Maine R.R. at School St., Beverly, to the PHŒNIX BRIDGE CO., 110 State St., Boston, at $5456. Noted Jan. 14.

Springfield, Mass.—(Official)—Bids will be received until noon, July 8, by the Board of Supervisors at the office of the City Clerk for the construction of the Plainfield St. Bridge over the tracks of the Boston & Maine R.R. It will have a 103-ft. span, 68 ft. wide. F. H. Clark is Supt. of Streets and Engineering. Noted Jue 17.

Albany, N. Y.—The Delaware & Hudson Co. has made application to the Public Service Commission of the Second District for permission to construct a railway bridge over Island Creek in Albany County. The bridge will be partly in the City of Albany and partly in the Town of Bethlehem. It will be a girder span not less than 50 ft. wide. James MacMartin is Ch. Engr. of the Delaware & Hudson Co.

Buffalo, N. Y.—The Board of Aldermen has rejected all bids for the reconstruction of the Chicago St. Viaduct, and has directed the Commissioner of Public Works to advertise for new bids. Francis G. Ward is Comr. of Pub. Wks. Noted May 7, 1914, and June 10, 1915.

Mohawk, N. Y.—At a recent election the citizens voted to issue $18,000 in bonds for the purpose of constructing nine concrete bridges on Paine's Hollow Rd.

★Belvidere, N. J.—(Official)—Bids wil be received until July 6 by the Board of Chosen Freeholders of Warren County, Courthouse, Belvidere, for the construction of two I-beam bridges. F. W. Salmon, Netcong, is County Engr. J. R. Thatcher is Dir. Bd. of Chosen Freeholders.

+Cranford, N. J.—The Board of Chosen Freeholders of Union County, Elizabeth, has awarded the contract for replacing the steel bridge at Union Ave., Cranford, with a new concrete structure, to the WELDON CONTRACTING CO., Rahway, at $11,270. Other bidders were: Ferro Concrete Co.,

$12,294; T. Foster Callahan, $13,230; Arthur E. Smith, $12,127; Averill-Matthews Co., $12,971; Logan Construction Co., $11,640; Schouler Cement Construction Co., $11,284; F. W. Schwiers, $12,954; James E. Gano, $11,435; Schafer & Newman, $11,640; Whitaker & Diehl, $13,284.

North Plainfield, N. J.—(Plainfield post office)—The lowest bid received by the Board of Chosen Freeholders of Somerset County, Somerville, for the construction of a bridge at Grove St. connecting North Plainfield with Plainfield, was that of A. E. Smith, Plainfield, at $7373. There were 14 bidders for the work.

✚Lebanon, Penn.—(Official)—The Supervisors of North Annville Township, Lebanon County, have awarded the contract for a bridge across Quittapahilla Creek to G. W. ENSIGN, INC., Harrisburg. Noted June 10.

Philadelphia, Penn.—The Committee on Surveys of the City Council is considering an ordinance for the construction of a $200,000 bridge over Pennypack Creek on the route to New York by way of the Northeast Blvd.

✚Cumberland, Md.—(Official)—The Road Directors of Allegany County have awarded the contract for a 70-ft. steel bridge over the C. & O. canal at Virginia Ave., Cumberland, to the VIRGINIA BRIDGE & IRON CO., Roanoke, Va. Noted June 10.

✚Frostburg, Md.—The Town Council has awarded the contract for the construction of a concrete bridge over the tracks of the Cumberland & Pennsylvania R.R. at Bowery St. to the LUTEN BRIDGE CO., York, Penn., at $5340. Noted June 10.

✚Luray, Va. — (Official) — The Commissioners of Page County have awarded the contract for a bridge over Hawksbill Creek, about one mile from Luray to E. C. McCOMB, Roanoke. Noted June 3.

✚Woodstock, Va.—(Official)—The Commissioners of Shenandoah County have awarded the contract for the construction of a 300-ft. bridge over the North Fork of the Shenandoah River between Shenandoah and Warren Counties to the VIRGINIA BRIDGE & IRON CO., Roanoke, at $6241. The Roanoke Bridge Co. bid $6572. Noted May 27.

Rainelle, W. Va.—Bids will be received until July 6 by the Greenbrier County Court, Lewisburg, for the construction of three steel or reinforced-concrete bridges near Rainelle. One will be 25 ft. long and the others 20 ft. each, all with 16-ft. roadways. J. S. Crawford is Clk. of County Court.

Guyton, Ga.—It is reported that the Commissioners of Effingham County, Springfield, and Bulloch County, Statesboro, contemplate the construction of a steel bridge across the Ogeechee River at Guyton. The estimated cost is $10,000.

Macon, Ga.—(Official)—It is announced that no new bridges will be built in Bibb County this year. J. Ross Bowdre is Clk. of County Comrs. Noted June 10.

St. Petersburg, Fla.—It is reported that the City Commissioners plan to build a new concrete bridge over Booker Creek. J. G. Bradshaw is Mayor.

Montgomery, Ala.—Bids will be received until July 12 by the Commissioners of Montgomery County for the construction of a steel bridge over Pinlala Creek on the Hayneville Rd. Thomas H. Edwards is County Engr.

Columbus, Miss.—Bids will be received until July 5 by the Board of Supervisors of Lowndes County for the construction of four steel bridges and three concrete culverts. G. E. Hauser, Jr., is Engr.

✚Ashland, Ohio—(Official)—The Commissioners of Ashland County have awarded the following contracts for the construction or repair of county bridges: CENTRAL CONSTRUCTION CO., Wooster, Ohio, $5199; S. F. BAKER, Ashland, $1579; G. W. COOPER, Polk, Ohio, $703; H. S. SCOTT, Ashland, $1627. Noted June 3.

Canton, Ohio—Bids will be received until July 7 by the Board of Commissioners of Stark County for constructing the substructure of the Fasnacht Bridge and Hess Rd. Bridge No. 1 in Perry Township. C. L. Stoner is Clk. of County Comrs.

Cincinnati, Ohio—(Official)—Bids will be received until noon, July 1, by Philip Fosdick, Dir. of Pub. Ser., for the reconstruction of all existing bridges in Sedamsville, estimated to cost $3000, and for rebuilding the Lick Run Rd. bridges, at a cost of about $4500. Parke S. Johnson is Secy. Bd. of Pub. Ser. Frank S. Krug is City Engr

Cincinnati, Ohio—(Official)—Bids will be received until noon, July 2, by the Board of Commissioners of Hamilton County for checkered steel plate covering over eyebars of trusses of the Beechmont Ave. Bridge, Anderson Township. Fred E. Wesselman is Pres. County Comrs.

✚Cincinnati, Ohio—The contract for the construction of approaches to the Beechmont Ave. Bridge over the Little Miami River has been awarded to R. E. CAIN at $5385.

Cleveland, Ohio—(Official)—Bids will be received until 10 a.m., July 3, by the Board of Commissioners of Cuyahoga County for paving the floor and approaches of the Brooklyn-Brighton Bridge. W. A. Stinchcomb is County Surv. E. G. Krause is Clk. of Comrs.

✚Dayton, Ohio—The Board of Commissioners of Montgomery County has awarded contracts for the Johnson Station Bridge to GEIGER & FINKE at $9143 for the concrete substructure, and the BROOKVILLE BRIDGE CO., Brookville, Ohio, at $12,990 for the superstructure.

Lebanon, Ohio—(Official)—Bids will be received until 11 a.m., July 12, by the Board of Commissioners of Warren County for the construction of a 160-ft. high truss steel bridge with creosoted plank and block over Cæsar's Creek at Haines Crossing on the Harveysburg and New Burlington Pike in Massie Township. Bids will be received at the same time for a two-span steel bridge over Turtle Creek at West St. in the Village of Lebanon. John M. Mulford is County Audr.

✚Milton, Ohio—(Diamond post office)—The Board of Control has awarded the contract for the construction of the Carson bridge on the Palmyra Rd. at Milton to the HUNTER CONSTRUCTION CO., Youngstown, at $32,675.

Portsmouth, Ohio—Bids will be received until July 2 by the Norfolk & Western Ry., First National Bank Bldg., for the construction of the Lawson Run Viaduct over the tracks of the railway. C. F. Losh, Portsmouth, is Asst. Engr.

✚Waverly, Ohio—(Official)—The Commissioners of Pike County have awarded the contract for the construction of a 123-ft. steel bridge across Sunfish Creek to the OREGONIA BRIDGE CO., Lebanon, Ohio, at $3686. The only other bid was that of the Champion Bridge Co., Wilmington, Ohio, at $4200. L. B. Eylar is County Audr. Noted June 10.

Bloomington, Ind.—(Official)—Bids will be received until July 6 by W. F. Kinser, Audr. of Monroe County, for the construction of the Willard Farr steel bridge in Bloomington Township.

Jeffersonville, Ind.—It is reported that the Commissioners of Clark County will advertise early in July for bids for constructing four steel or reinforced-concrete bridges, from 30 to 90 ft. long, and one 180-ft. reinforced-concrete bridge. G. W. Stoner is County Audr.

✚Rensselaer, Ind.—The Board of Commissioners of Jasper County has awarded the contract for the construction of two bridges to F. M. WILLIAMS, Winamac, at $7522.

✚Houghton, Mich—The Duluth, South Shore & Atlantic Ry. has awarded a contract for the concrete piers and substructure of an approach bridge to the Portage Lake Bridge on the Houghton side to the FOUNDATION CO., Woolworth Bldg., New York, N. Y. The bridge will be 300 ft. long with a steel superstructure, the contract for which has not yet been awarded. The estimated total cost is $60,000. W. W. Walker, Duluth, Minn., is Vice-Pres. and Gen. Mgr. of the railway company.

★Rockford, Ill.—(Official)—Bids will be received until 1:30 p.m., June 28, by H. J. Gallagher, Chn. of the St. and Alley Com. of the City Council, for the construction of a concrete bridge over Keith Creek at Kishwaukee St. The estimated cost is $13,000. Edwin Main is City Engr. Noted May 13.

Springfield, Ill.—(Official)—Bids will be received until 11 a.m., June 30, by the State Highway Department for the construction of a 155-ft. steel bridge in Bernadotte Township, Fulton County. The estimated cost is $5280. E. F. Motsinger, Canton, is Supt. of Highways of Fulton County.

Springfield, Ill.—(Official)—Bids will be received until 11 a.m., June 30, by the State Highway Commission for the construction of a number of bridges in various counties.

Burlington, Iowa—A special election will be held June 30 to vote on the question of issuing bonds for the purpose of building a bridge across the Mississippi River at Burlington. The estimated cost is $200,000. The bridge will be built jointly by the city and a stock company. Henry G. Vollmer is City Engr.

Beloit, Kan.—(Official)—Bids will be received until July 8 by the Commissioners of Mitchell County for the construction of County Bridges Nos. 810,201 and 86,141. This work was advertised for June 9, but because of technicalities, the award was postponed for a month. T. H. McCall is County Clk. Noted June 3.

Ponca, Neb.—(Official)—The Commissioners of Dixon County have rejected all bids received June 11 for the construction and repair of county bridges for a period of one year. The work will be readvertised. A. N. Porter is County Clk. Noted May 27.

Hardin, Mont.—(Official)—Bids will be received until 10 a.m., July 12, for the purchase of $28,500 in bonds. The proceeds will be used for the construction of a bridge across the Big Horn River. R. P. Ross is County Clk.

Chillicothe, Mo.—Plans will be completed about July 1 for a number of bridges in Livingston County. Three will be of steel, two 60-ft. and one 80-ft. span; four will be of reinforced-concrete, from 30 to 50 ft. long. Joseph Broaddus is County Engr. Fred Harris is County Clk.

Kahoka, Mo.—Bids will be reecived until noon, July 2, by the Commissioners of Clark County for the construction of five bridges in various townships. A. E. Ostrich is County Engr.

St. Louis, Mo.—The Missouri Pacific Ry. System has submitted plans to the Board of Public Service for approval, of a reinforced-concrete viaduct over its tracks at Chouteau Ave. It will be 1680 ft. long and 80 ft. wide. J. R. Stephens, St. Louis, is Ch. Engr. Noted Jan. 14.

Dallas, Tex.—It is reported that the Commissioners Court of Dallas County contemplates the construction of a bridge across the Trinity River at Commerce St. The estimated cost is $100,000. J. F. Witt, Dallas, is County Engr.

Tulsa, Okla.—Plans have been selected for the bridge to be built across the Arkansas River connecting Tulsa with West Tulsa. The bridge will be 1460 ft. long with a 30-ft. roadway and two 4-ft. sidewalks. The approaches will be 400 and 450 ft. The estimated cost is $183,000. Lewis Cline is County Clk. Noted Apr. 29.

La Junta, Colo.—(Official)—Bids will be received until 2 p.m., July 6, by the Board of Commissioners of Otero County, Courthouse, for the construction of a reinforced-concrete bridge across Anderson Arroyo on Fifth St., La Junta. Alternate bids will be accepted on a single span of 73 ft., or a bridge with two 50-ft. spans. George McCauley is County Clk. Mark Denson, Rocky Ford, is County Engr.

Challis, Idaho—At an election on May 29 the citizens voted in favor of a bond issue of $35,000 for the purpose of constructing five steel bridges in the county. It is reported that bids will soon be asked. Earl J. Michael is County Clk. Noted May 20.

✚Twin Falls, Idaho—(Official)—The State Highway Commission, Boise, has awarded the contract for four steel bridges in Twin Falls County, to form part of the State highway system, to the MIDLAND BRIDGE CO., Kansas City, Mo., at $16,561. Other bidders were: H. W. Perkham, Twin Falls, $17,882; J. H. Forbes, Twin Falls, $17,012; C. H. Mull, Twin Falls, $17,284; Minneapolis Steel & Machinery Co., Minneapolis, Minn., $17,565.

Colfax, Wash.—Bids will be received until July 6 by the Cocmmissioners of Whitman County for the construction of four concrete bridges, a 30-ft. span at Farmington; 25-ft. span at Garfield; 40-ft. bridge at Clinton, and a 60-ft. bridge at Pullman. John McCaw is County Engr. A. R. Metz is County Audr.

Seattle, Wash.—Bids will be received until June 28 by the City Commissioners for the construction of a steel bridge over the Snoqualmie River on the Tolt-Redmond Rd. The estimated cost is $18,000. H. W. Carroll is City Clk.

✚Stevenson, Wash.—(Official3—The Board of Commissioners of Skamania County has awarded the contract for a concrete bridge across Nelson Creek on the Ivatot Rd. to H. J. HILDEBURN, 715 Weidler St., Portland, Ore., at $5400. Other bidders were: Hood River Transfer & Livery Co., $6498; Samson & Scales, $7025; Elliott Contracting Co., $5650. Noted May 27.

Tacoma, Wash.—(Official)—Bids will be received until 2 p.m., July 7, by the State Highway Board, Olympia, for the construction of a reinforced-concrete arch over the Mashell River, Pierce County. William R. Roy, Olympia, is State Highway Comr.

✚Tumwater, Wash.—(Official)—The Board of Commissioners of Thurston County, Olympia, has awarded the contract for the construction of a bridge across Des Chutes River on the Pacific Highway to CHARLES G. HUBER, Seattle, at $13,798. It will be of concrete, three spans, Luten design. List of bidders noted June 17.

Clatskanie, Ore.—Bids will be received until June 26 by A. F. Barnett, County Clk. of Columbia County, St. Helen, for the construction of a steel bridge across the Clatskanie River near Clatskanie. The estimated cost is $20,000. L. J. Van Orshoven, St. Helen, is County Engr.

✚Auburn, Calif.—The Board of Supervisors of Placer County has awarded the contract for the construction of a bridge across Coon Creek to JENKINS & WELLS, Sacramento, at $4888.

Coloma, Calif.—The Board of Supervisors of Eldorado County, Placerville, has decided to build a bridge across the South Fork of the American River at Coloma.

Ferndale, Calif.—Press reports state that the Board of Supervisors of Humbolt County, Eureka, will soon ask for bids for the construction of a bridge over Salt River at Ballou's Ford to replace the present structure. The approximate cost will be $10,000.

Kennett, Calif.—The Board of Supervisors of Shasta County, Redding, is considering the construction of a bridge across the Sacramento River at Kennett. The estimated cost is $20,000.

Red Bluff, Calif.—Bids will be received until June 29 by the Board of Supervisors of Tehama County for the construction of a 2200-ft. bridge across Sand Slough, a 450-ft. bridge across Samson Slough, and a 600-ft. bridge across Payne Creek. Bids for either concrete or steel construction will be accepted. Noted Mar. 25.

✚Salinas, Calif.—The Board of Supervisors of Monterey County has awarded the contract for the construction of a 720-ft. steel bridge across the Salinas River near Neponset to PETERSON & GRIER, San Francisco, at $32,290.

✚Stockton, Calif.—The Board of Supervisors of San Joaquin County has awarded the contract for the construction of two steel drawbridges over the Old and Middle Rivers to the TIBBITS-PACIFIC CO., San Francisco, at $140,449 and $139,567 respectively. Contra Costa will pay a part of the cost of the Old Bridge. Noted May 13.

Visalia, Calif.—It is reported that Byron O. Lovelace, Surv. of Tulare County, has completed plans for a new 400-ft. bridge. The estimated cost is $18,000.

✚Yreka, Calif.—It is reported that the Board of Supervisors of Siskiyou County has awarded the contract for the construction of seven reinforced-concrete bridges to the PENN BRIDGE CO., Beaver Falls, Penn., at $29,650.

Brantford, Ont.—(Official)—Bids will be received until noon, June 30, by the County Clerk of Brant County for steel superstructures and concrete abutments of two 60-ft. bridges, one each over Fairchild's Creek and Mainwaring Creek. Alan Mair Jackson, Temple Bldg., Brantford, is County Engr.

Vancouver, B. C.—Bids for the reconstruction of the Connaught Bridge, which was recently burned, were received by the City Council as follows: Furnishing steel and erection, Cotton Co., Ltd., Vancouver, $72,330; Hodgson, King & McPhalen Bros., Ltd., Vancouver, $87,394; Wallace Shipyards, Ltd., Vancouver, $87,677; Booker, Campbell & Whipple, Bellingham, Wash., $77,900; Armstrong & Morrison, Vancouver, $87,836; for steel only, J. Couglan & Sons, Vancouver, $39,874; Canadian Northwest Steel Co., $77.50 per ton; dismantling and erection, Coast Contracting Co., Seattle, Wash., $24,450; Beers, Ltd., Vancouver, $34,126; Hodgson, King & McPhalen Bros., $39,874. Noted June 3.

WATER SUPPLY—IRRIGATION

Calais, Maine—The Maine Water Co. contemplates installing a water system in Calais. Surveys are now being made. M. L. McAlary, Waterville, is Engr-in-Charge.

Lenox, Mass.—The Lenox Water Co. has had plans prepared for the construction of a reservoir. The estimated cost is $12,000. Noted Oct. 8.

✚Lowell, Mass.—(Official)—The contract has been awarded to the HOLLY MFG. CO., Buffalo, N. Y., at $19,975, for vertical triple expansion crank and fly wheel pumping engines. J. W. Cranford is Register. Noted June 10.

✚★Hartford, Conn.—The contract has been awarded to LEONARDO SUZIO, Meriden, at $29,181, by the Water Commissioners for constructing under Contract No. 9 the east dike of the Nepaug reservoir. Noted May 20 and June 10.

✚★Albion, N. Y.—(Official)—Contracts have been awar to: CONTINENTAL FILTER CO., New York, at $12,500, filtration plant and equipment; R. D. WOOD & CO., Phi delphia, Penn., at $23.65 per ton, for pipe and to the LUDLO MFG. CO., Troy, at $1899, for hydrants and valves and to t FOOS GAS ENGINE CO., Springfield, Ohio, at $10,000, engines and pumps. Noted May 13.

Lockport, N. Y.—Bids were received June 7 for layi water mains in Market and Mill St., as follows: F. J. L Valley, Lockport, $16,600; C. B. Whitmore Co., Lockport, $16 660; C. N. Stainthorpe & Co., Lockport, $16,990, and H. W. Golde & Son, Inc., Troy, $18,325. William G. Spaulding is City Clk

★New York, N. Y.—(Official)—Bids will be received unt 11 a.m., July 7, by the Board of Water Supply, Municipal Bldg for furnishing and delivering under Contract No. 140 drainag equipment for unwatering the tunnel and its shafts in New York. W. Bruce Cobb is Secy.

New York, N. Y.—(Boroughs of Manhattan and the Bronx) —(Official)—Bids were received June 14 by the Departmen of Water, Gas and Electricity, for furnishing venturi mete tubes and recording apparatus for connections from the Catskill supply; Builders' Iron Foundry, Providence, R. I., $16,801, and the Simplex Valves & Meter Co., $18,850. Noted June 10.

Oswego, N. Y.—(Official)—Bonds for $35,000 have been voted by the citizens, the proceeds of which will be used for the extension and repair of the water system. Thomas H McGinnis is City Clk. Noted June 3.

★Port Henry, N. Y.—(Official)—Bids will be received until 8 p.m., July 7, by A. C. Lindin, Village Clk., for constructing a reservoir and filtration plant.

Gloucester City, N. J.—Bids will be received until noon, June 25, by J. F. Lenny, City Clk., for the furnishing and installation of boilers, stack, tank service pumps and air compressor and for making alterations. C. A. Blatchley, Drexel Bldg., Philadelphia, Penn., is Engr. Noted Apr. 15.

✚Harrison, N. J.—Contracts have been awarded by the Hudson County Park Commissioners, Jersey City, for work at West Hudson Park: WATSON-FLAGG ENGINEERING CO., 27 Thames St., New York, N. Y., at $5713, for pumps; WILLIAM ROBERTSON & SON, INC., 15 Exchange Pl., Jersey City, at $2898, for pumping station. Noted May 27.

Wildwood, N. J.—The acquisition of the Wildwood Water Works Co. by the city has been approved by the State Utilities Commission. Noted Apr. 8 and May 20.

Beavertown, Penn.—(Official)—Bonds have been voted by the citizens. The proceeds will be used for the construction of a reinforced-concrete reservoir and pipe lines. Mark C. Krause, Williamsport, is Engr.

★Media, Penn.—(Official)—Bids will be received until 2 p.m., June 28, by the Water Committee of Media, for constructing a 2,000,000-gal. settling basin, a 250-hp. water tube boiler, wash water standpipe and pipes. The estimated cost is $45,000. M. C. Michener is Chn., Water Com. Noted June 17.

★Saltsburg, Penn.—(Offical)—Bids will be received until July 12 by the Borough of Saltsburg for one 500,000-gal. pump for the water-works. Robert H. Wilson is Chn., Water Com.

Baltimore, Md.—Bids will be received until June 30 by the Board of Awards for furnishing a 20,000,000-gal. centrifugal pump and equipment for the Eastern pumping station. Ezra B. Whitman is Consult. Engr. Noted Apr. 29 and June 17.

Frederick, Md.—The construction of a pipe line from Fishing Creek to the city water mains is under consideration by the city. Lewis H. Fraley is Mayor.

City Point, Va.—According to press reports the City Point Water Co. has been incorporated by Richard Eppes, Pres., and others with a capital of $50,000. The company plans to construct a water system.

Covington, Va.—Bids will be received until July 12 by E. B. Butler, Mayor, for c.-i. pipe and specials and for constructing a 2,000,000-gal. concrete reservoir. Harry Stevens, Union Trust Bldg., Washington, D. C., is Consult. Engr. Noted May 20 and June 10.

✚Athens, Ga.—The contract has been awarded to the NEW YORK CONTINENTAL JEWEL FILTRATION CO., New York, N. Y., at $5000, for constructing a 500,000-gal. filter. Noted June 17.

Boozeville, Ga.—(Lindale post office)—The construction of a water system is contemplated by James J. Skelton, Lindale. The work includes the construction of a 10,000-gal. tank, sink well, oil engine and pump and 2500 ft. of galvanized pipe.

Stone Mountain, Ga.—(Official)—At a recent election the citizens voted against the question of issuing bonds, the proceeds of which was to have been used for the installation of a water system. Noted May 20.

Bradentown, Fla.—An election will be held in July to vote on the question of issuing $21,000 in bonds, the proceeds of which will be used for the extension of the water system. Noted Mar. 11.

Ocala, Fla.—Bids will be received until June 26 for the purchase of $55,000 in bonds, the proceeds of which will be used for the installation of a water system. E. J. Cook is Secy., Bd. of Bond Trustees. Noted Oct. 15 and Mar. 18.

Pensacola, Fla.—Bonds for $20,000 have been voted by the citizens, the proceeds of which will be used for the construction of a building for the water-works.

Orrville, Ala.—The city contemplates constructing a water system.

Philadelphia, Miss.—Bonds for $30,000 have been voted by the citizens, part of the proceeds of which will be used for the construction of a water system. Noted Dec. 24.

Monroe, La.—(Official)—Walter G. Kirkpatrick, Birmingham, Ala., has been retained by the city to make a report on the condition and on the improvement of the water, light and traction systems, sewers and pavements, as basis for a $400,000 bond issue. H. D. Apgar is Mayor.

Bellbuckle, Tenn.—An election will be held July 10 to vote on the question of issuing $25,000 in bonds, the proceeds of which will be used for either the construction or the purchase of the water system.

Attica, Ohio—(Official)—The election to vote on the question of issuing $10,000 in bonds for the improvement of the water system has been postponed from June 12 to July 12. John Schottler is City Clk. Noted Nov. 19 and June 10.

Chagrin Falls, Ohio—(Official)—Bids will be received until noon, June 28, by L. G. Bradley, Clk. Bd. of Trustees, for furnishing one horizontal duplex, direct-acting, noncondensing pumping engine, with fittings, and one return tubular, brick set steam boiler for the water-works.

Ironton, Ohio—Bids will be received about Aug. 1 by the city for constructing a water system. The estimated cost is $250,000. J. F. Witmer Co., 98 Dun Bldg., Buffalo, N. Y., is Engr. Noted July 30 and Sept. 10, 1914.

Linden Heights, Ohio—An election will be held July 1 to vote on the question of issuing $20,000 in bonds, the proceeds of which will be used for the construction of a water-works. David A. Shade is Mayor.

Tiffin, Ohio—The citizens will vote at an election to be held July 12 on a bond issue for $10,000, the proceeds of which will be used for the enlargement of the municipal water system.

Youngstown, Ohio—The extension of the water system at an estimated cost of $100,000, is under consideration by the Budget Committee of the City Council.

Batesville, Ind.—Plans are being prepared by Charles Brossmann, 1616 Merchants Bldg., Indianapolis, for the improvement of the water system.

Ahmeek, Mich.—Bonds for $17,500 have been voted by the citizens, the proceeds of which will be used for the construction of a pumping station and water-works. Noted Apr. 15 and May 20.

Battle Creek, Mich.—Press reports state that an appropriation of $25,000 has been made by the State Senate for making extensions to the water mains at the Michigan Soldiers Home.

✚Aurora, Ill.—The contract has been awarded to S. B. GEIGER, Old Colony Bldg., Chicago, at $17,750, by the Board of Public Works, for driving an artesian well. Noted May 20.

Chicago, Ill.—Bids will be received until June 25 by Edward J. Glackin, Secy., Bd. of Local Imp., for laying water mains in portions of various streets.

Chicago, Ill.—Bids will be received until June 30 by W. D. Moorhouse, Comr. of Pub. Wks., for furnishing pumping machinery for the 68th pumping station.

Springfield, Ill.—Bids will be received until 10 a.m., June 25, by B. A. Lange, Pres., Bd. of Mgrs., of Oak Ridge Cemetery, for laying 3200 ft. of 4-in. c.-i. pipe, 10,000 ft. of 2-in. and 5000 ft. of 1½-in. galvanized pipe and specials.

Fond du Lac, Wis.—(Official)—Bids will be received until 3 p.m., July 8, by the ctiy, for the laying of 13,900 ft. of 4- to 14-in. water mains. The city will furnish the material. J. F. Hohensee is City Clk. Noted Sept. 17 and June 10.

Kenosha, Wis.—The Great Lakes Dredge & Dock Co., Milwaukee, Wis., was low bidder at $15,700, for constructing the new lake intake, crib and shore tunnel. Noted Apr. 20 and May 27.

✚Orange City, Iowa—(Official)—The contract has been awarded to the DES MOINES BRIDGE & IRON WORKS, Des Moines, at $9935, for laying water mains and for improving the water system. F. J. John is City Clk. Noted May 6 and June 10.

✚Campbell, Minn.—(Official)—The contract has been awarded to WARD & WEIGHTON CO., Sioux City, Iowa, at $3246, for constructing a water system under Plans Nos. 1 and 4. Herman Reyelts is Village Clk. Noted June 3.

Lakefield, Minn.—Bonds have been voted by the citizens, the proceeds of which will be used for the reconstruction of the water-works and electric-light plant. E. C. Anderson is City Clk.

Chanute, Kan.—(Official)—We have been advised that bids have not as yet been advertised for the construction of extensions to the water system. C. G. Wood is City Clk. Noted June 10.

Pratt, Kan.—Bids will be received until 1 p.m., June 30, by W. O. Humphrey, Mayor, for making improvements to the water system. E. T. Archer & Co., 514 New England Bldg., Kansas City, Mo., is Engr.

Simpson, Kan.—Plans have been prepared by W. B. Rollins & Co., Midland Bldg., Kansas City, Mo., for the construction of a water system. The estimated cost is $12,000.

Spearville, Kan.—Plans are being prepared by W. B. Rollins & Co., 430 Midland Bldg., Kansas City, Mo., for the construction of a water system. The estimated cost is $20,000.

Broken Bow, Neb.—(Official)—Bids will be received until 1 p.m., July 3, by B. E. Thompson, City Clk., for a pumping plant for the water system and for an electric-light plant. The estimated cost is $16,000. Charles F. Sturtevant is City Engr. Noted Apr. 22 and June 10.

Canova, S. D.—According to press reports bids will be received about July 1 for the laying of 5000 ft. of water main, a 300-ft. well, an elevated tank and a pumping station. The estimated cost is $9500. H. H. Schulte is Town Clk. Noted May 20 and June 3.

✚Ipswich, S. D.—The contract has been awarded to TANNER BROS., St. Paul, Minn., for constructing a concrete reservoir. Noted May 27.

Anamoose, N. D.—(Official)—An election will be held June 29 to vote on the question of issuing bonds for $10,000, the proceeds of which will be used for the construction of a water system. Noted June 10.

Saratoga, Wyo.—The citizens defeated the question of issuing bonds, the proceeds of which was to have been used for the installation of a water system. Noted May 6.

Chouteau, Mont.—Bids are being received, according to press reports, for constructing a water system. The estimated cost is $42,000. Swearingen & McCulloh, Chouteau, is Engr. Noted June 3.

Kirksville, Mo.—An election will soon be held to vote on the question of issuing $70,000 in bonds, the proceeds of which will be used for the improvement of the water and electric-light systems.

Columbus, Tex.—Bonds for $9000 have been voted. The proceeds will be used for the improvement of the water system. Noted Apr. 22 and May 6.

Elgin, Tex.—The city contemplates developing a water supply for the municipal water-works. R. Roemer is Mayor.

✚Ennis, Tex.—The contract has been awarded to the CHICAGO BRIDGE & IRON WORKS, Chicago, Ill., at $4190, by the city for constructing a 100,000-gal. water tower. Noted Mar. 18.

Kenedy, Tex.—The city contemplates constructing a water system. About $35,000 is available for this purpose. P. R. Goff is Mayor.

Marlin, Tex.—(Official)—Bonds for $15,000 have been voted by the citizens, the proceeds of which will be used for the extension of the water mains. J. H. Powell is City Secy. Noted May 20 and June 3.

✚Temple, Tex.—The contract has been awarded to P. G. BURNS, Houston, at $16,460, by the city for the construction of a concrete dam and spillway over Leon River. Noted Jan. 28 and May 27.

✚Cheney, Wash.—The contract has been awarded to J. H. HARRIS, Spokane, at $15,000, by A. C. Madsen, City Clk., for drilling an additional well and equipment.

Raymond, Wash.—An ordinance has been passed by the City Council appropriating the waters of the south fork of the Willapa River for municipal water purposes and condemning 190 acres of land five miles south of Raymond to be used for storage purposes. J. E. Elwood is City Clk.

Seattle, Wash.—G. Argentieri & Co., 989 Rainier Ave., Seattle, was low bidder at $8819, for constructing water mains in Fifth Ave., W. Noted June 3.

Florence, Ore.—The citizens voted in favor of issuing bonds for $10,000, the proceeds of which will be used for the construction of a water system. Noted Apr. 15.

Marshfield, Ore.—J. S. Sawyer, City Engr., has prepared plans for the construction of a new water-supply system. The estimated cost is $80,000.

Portland, Ore.—At an election held June 7 the citizens voted against the question of issuing bonds, the proceeds of which was to have been used for the installation of water meters. A. L. Barbur is City Audr. Noted June 3.

✚Umatilla, Ore.—The contract has been awarded to PIKE & O'NEILL, Portland, at about $10,000, by the Oregon-Washington Ry. & Navigation Co., for constructing a distributing system in connection with its new water-works. Noted May 27.

✚Arcadia, Calif.—The contract has been awarded to the LACY MFG. CO., Washington Bldg., Los Angeles, at $38,141, for furnishing and laying riveted steel pipe for the water system. Noted Feb. 18.

Corning, Calif.—(Official)—Bids will soon be received by the city for making extensions to the water and sewer systems at an estimated cost of $30,000. Bonds for this amount have been approved. C. W. Davis, Corning, is City Engr. Noted Jan. 28 and Mar. 26.

Martinez, Calif.—An election will soon be held to vote on the question of issuing $40,000 in bonds, the proceeds of which will be used for the installation of a fire protection system.

Pasadena, Calif.—Theodore L. Syverston, 434 Maple Way, Pasadena, was low bidder at $19,617, for making extensions to the water system for the Linda Vista Water Co. Noted May 27.

Pasadena, Calif.—The city plans to build a chlorine water purification plant in the Arroyo Seco. Samuel B. Morris is Engr. Water Dept.

✚Marysville, N. B.—(Official)—The contract for constructing two storage dams on the Nashwaak River for the Edward Partington Pulp & Paper Co., Ltd., St. John, has been awarded to the AMBURSEN HYDRAULIC CONSTRUCTION CO., New Birks Bldg., Montreal, Que.

Kingston, Ont.—Plans have been prepared by R. J. McClelland, City Engr., for the extension of the water system.

Marmora, Ont.—(Official)—We have been advised that the city will install a three-stage turbine pump, hydrants and water mains by its own forces. H. W. Rabine is Clk. Noted June 10.

Ryde, New South Wales—Bids will be received until July 12 by the Metropolitan Board of Water Supply and Sewerage, 341 Pitt St., Sydney, Australia, for two steam turbines with condensers, air pumps and spares at the pumping station at Ryde.

SEWERS

Amherst, Mass.—The city contemplates the installation of a sewer system estimated to cost $30,000.

Boston, Mass.—Bids will be received until noon, June 29, by P. O'Hearn, Act. Comr. of Pub. Wks., for the construction of pipe sewers and drains in Prince St., West Roxbury, Richfield and Westwood St., Dorchester, and in public alleys Nos. 903 and 904 and an outlet sewer in Bickerstaff St., Roxbury.

Boston, Mass.—Bids will be received until noon, June 25, by P. O'Hearn, Act. Comr. of Pub. Wks., for the construction of pipe sewers and drains in Holden St. and Summer Court.

Boston, Mass.—The City Council has approved an appropriation of $335,299 for sewer construction.

Malden, Mass.—The city has authorized a bonds issue of $90,000, part of the proceeds of which will be used for the construction of sewers.

✚**Woonsocket, R. I.**—The contract for the construction of surface water drains in South Main, Old, Cottage and other streets has been awarded to BREIN & BOUVIER, Woonsocket, at $7400.

✚**Greenwich, Conn.**—(Official)—The contract for the construction of 22,500 ft. of sewers in various streets has been awarded to the LINCOLN-STEELE FLEMING CO., 17 Madison Ave., New York, N. Y., at $23,999. Noted June 3.

Torrington, Conn.—Plans are being prepared by Charles A. Patterson, Borough Engr., for the construction of sanitary sewers in Beechwood Ave., Smith and Lewis Pl. and in the rear of the property of the Methodist Church.

Ilion, N. Y.—Bonds for $30,000 have been voted. The proceeds will be used for the construction of sewers.

New York, N. Y.—(Borough of Richmond)—(Official)—Bids will be received until noon, June 29, by Charles J. McCormack, Borough Pres., for sewer construction in East Warren St.

✚**Cliffside Park, N. J.**—(Cliffside post office)—(Official)—The contract for the construction of Section 1 of the trunk line sewer has been awarded to BERGEN CONTRACTING CO., at $8406 . Noted June 10.

Lodi, N. J.—Plans have been submitted to the State Board of Health for the construction of a sewer system and a sewage-disposal plant. The estimated cost is $100,000.

Maywood, N. J.—At a recent election the citizens voted to issue $93,000 in bonds, the proceeds of which will be used for the construction of a sewer system. Plans have been prepared by Clyde Potts, 50 Church St., New York, N. Y. Noted Apr. 29.

✚**Downingtown, Penn.**—(Official)—Bids were received June 7 by the Borough Council for sewer construction as follows: (a) sewers, (b) sewage-disposal plant. Averill-Matthews, Newark, N. J., (b) $49,457; POLLOCK & LEWIS, Downingtown, (a) $34,009, (b) $35,900 (awarded contract); Edwin H. Vare, Philadelphia, (a) $37,472, (b) $40,000; John A. Clark, Wilmington, Del., (a) $37,572, (b) $48,500; Martin, Miller & Pizzimenti, Caldwell, N. J., (a) $31,923, (b) $44,795; Frank X. Hinden, Lancaster, (a) $32,080; W. H. Johnson, Philadelphia, (a) $33,333; Fred E. Gross, Yonkers, N. Y., (a) $33,012, (b) $39,500; Jones & Haggart, Pittsburgh, (a) $46,707, (b) $49,950; Dabbs-Meyers, Laurel, Md., (a) $36,777; New York Sewage Disposal Co., New York, N. Y., (b) $45,675; Thomas E. Dwyer, Philadelphia, (a) $33,825, (b) $41,333; M. & T. E. Farrell, West Chester, (a) $32,972, (b) $46,300; Cantrell Construction Co., Philadelphia, (a) $36,010, (b) $38,730; GEORGE C. SOUDER, Lancaster, (a) $27,231 (awarded contract); Suburban Engineering Co., New York, N. Y., (b) $45,975. Herbert W. Hatton, Wilmington, Del., is Consult. Engr. Noted May 20.

Montrose, Penn.—(Official)—Bids were received June 10 by the Borough Clerk for the construction of a sewage-disposal plant as follows: Suburban Engineering Co., $8675; Charles Dugan, $8952; C. R. Camp, $7892; New York Sewer Disposal Co., $7063. F. H. Shaw, Lancaster, is Engr. Noted May 20.

Montrose, Penn.—Bonds for $20,000 have been voted. Part of the proceeds will be used for the construction of a sewage-disposal plant. Noted June 3.

Cartersville, Ga.—An election will soon be held to vote on the question of issuing $85,000 in bonds. The proceeds will be used for the construction of a sewer system and other municipal improvements.

✚**Macon, Ga.**—The contract for the construction of approximately 1½ miles of main sewers through the property of the Suburban Realty Co. has been awarded to H. B. HOPPENDEITZEL CO.

✚**Miami, Fla.**—The contract has been awarded to DUVALL & ASHWORTH for the construction of sewers in Ave. B and J, Seventh and other streets.

Orrville, Ala.—The city contemplates the construction of a sewer system.

✚**Okolona, Miss.**—(Official)—The contract for sewer construction has been awarded to SULLIVAN LONG & HAGERTY, Bessemer, Ala. Noted June 10.

Philadelphia, Miss.—At a recent election the citizens voted to issue $30,000 in bonds. Part of the proceeds will be used for the construction of a sewage-disposal plant.

Cleveland, Tenn.—(Official)—All bids received for the sale of $75,000 in bonds, the proceeds of which was to have been used for the construction of a sewer system, have been rejected. Bids for the work will not be advertised until the bonds are sold. Noted June 3.

Harlan, Ky.—The city will issue $7500 in bonds, the proceeds of which will be used for the construction of a sewer system.

Madisonville, Ky.—Bids will be received until July 1 by the city for the construction of 8666 ft. of sanitary sewers.

✚**Cleveland, Ohio**—The contract for the construction of drains at the Division Ave. filtration plant has been awarded to the JOHN F. CASEY CO., Cleveland, at $8744.

✚**Cleveland, Ohio**—The contract for the construction of a sewer in Jennings Rd., S. W., has been awarded to CHARLES H. BENNETT, at $25,000. Noted Apr. 24.

★**Cleveland, Ohio**—(Official)—Bids will be received until noon, July 7, by A. R. Callow Comr. of Purchases and Supplies, for the construction of approximately 7500 lin.ft. of 6-ft. brick sewers.

Cleveland, Ohio—(Official)—Bids were received June 10 by the Commissioner of Purchase and Supplies for the construction of sewers in Sandusky Ave. from East 93d to East 102d St. and in Norman Ave. as follows: Lake Erie Paving & Construction Co., $17,697; Amata Construction Co., $19,937; Brookside Construction Co., $21,359; Manson Co., $21,921; James Duff Construction Co., $22,354; Thomas P. Egan, $23,689. Robert Hoffman is City Engr. A. L. Stevens is Engr. of Sewers. Noted June 3.

★**Columbus, Ohio**—(Official)—Bids will be received until noon, June 29, by George A. Borden, Dir. of Pub. Ser., for the construction of the South Side storm sewer, a distance of approximately five miles, and the Maryland Ave. storm sewer, a distance of approximately 1.6 miles. Henry Maetzel is Ch. Engr. Noted June 17.

Cuyahoga Falls, Ohio—An election will be held in the fall to vote on the question of installing a sanitary sewer system.

East Palestine, Ohio—Bids will be received about July 5 by the city for the construction of approximately 15 miles of sewers and a sewage-disposal plant. C. E. Vaughn is Engr. and O. L. Butt is Clk. Noted Apr. 8.

Leetonia, Ohio—The city contemplates the construction of a sewage-disposal plant. G. W. Ballatine is Mayor.

Lowellville, Ohio—Bids will be received until noon, June 24, by C. W. Baker, Village Clk., for the construction of sewers in District No. 2. Noted Mar. 25.

Portsmouth, Ohio—A. E. Miller, at $5293, submitted the lowest bid for the construction of storm and sanitary sewers in the Sixth Ward.

Indianapolis, Ind.—Bids will be received until June 25 by the Board of Public Works for the construction of main sewers in Central Ave. The estimated cost is $157,000. Noted Aug. 20.

Ottawa, Ill.—The lowest bid submitted for the construction of the Madison St. sewer was that of the Omaha Construction Co., Omaha, Neb., at $4530.

Quincy, Ill.—Bids will be received about Aug. 1 by the city for the construction of sewers in 13th, 24th, Oak and Spruce St. The estimated cost is $20,000. F. L. Hancock is Engr.

Wenona, Ill.—(Official)—The contract for the construction of a sewer system with septic tanks will be awarded by the Board of Local Improvements about July 20. F. H. Ong is City Clk. Noted May 13.

Elroy, Wis.—(Official)—Bids will be received until July 6 by William Flood, City Clk., for sewer construction.

Kohler, Wis.—Bids will be received until 8 p.m., June 30, by the Village Board, for the construction of sanitary sewer and storm drainage systems. J. Donohue, Sheboygan, is Engr.-in-Charge.

Milwaukee, Wis.—Bids will be received until June 29 by the city for the sale of $200,000 in bonds. The proceeds will be used for the construction of sewers. Noted May 27.

✚**Oshkosh, Wis.**—The contract for the construction of sanitary and storm sewers has been awarded to the LARSEN CONSTRUCTION CO., at $35,000. Noted May 20.

Plymouth, Wis.—Plans are being prepared for the construction of approximately one mile of sanitary sewers. H. A. Luedke is City Clk.

Sheboygan, Wis.—Bids will soon be received for the construction of 11,000 ft. of sanitary sewers. C. U. Boley is City Engr.

✚**Lake Mills, Iowa**—(Official)—Bids were received June 14 by O. M. Styve, Town Clk., for the construction of (a) sewers, (b) sewage-disposal plant and branch sewers as follows: W. F. REILY, St. Louis, Mo., (a) $10,372 (awarded contract), (b) $12,933 (awarded contract); Homery & Nelson, Emmetsburg, (a) $13,858, (b) $14,861; Moore-Sieg Construction Co., Waterloo, (a) $10,934, (b) $16,077; Cedar Rapids Construction Co., Cedar Rapids, (a) $11,514, (b) $16,316; M. S. Jackson, Cedar Rapids, (a) $11,381, (b) $17,325; Dearborn Construction Co., Waterloo, (a) $12,642, (b) $16,593; C. L. Hansen, Charles City, (a) $13,689; J. O. Hughes, Charles City, (b) $17,193; M. A. Camery, Harlan, (a) $14,909. M. Tschirgi & Sons, Cedar Rapids, is Engr. Noted June 10.

Laporte City, Iowa—The City Council has approved plans prepared by M. Tschirgi & Sons, Engr., American Trust Bldg., Cedar Rapids, for the construction of a sewer system. The estimated cost is $32,000. Noted May 20

Newton, Iowa—(Official)—Bids will be received until 7:30 p.m., June 29, by the City Clerk for the construction of a sewage-disposal plant and sewers. The estimated cost is $5000.

Ottumwa, Iowa—Bids will soon be received for the construction of approximately 1¼ miles of 8- to 15-in. sewers. J. T. Brady is Engr.

Eveleth, Minn.—(Official)—Bids will be received until 8 p.m., July 20, by C. H. Williams, City Clk., for the construction of a sewage-disposal plant. The estimated cost is $40,000. C. M. Dorway is City Engr. Noted May 27.

Glencoe, Minn.—Bids will be received until 7 p.m., June 29, by Peter Hatz, City Clk., for the construction of a main trunk sewer, lateral sewers and a 50,000-gal. Imhoff tank with outfall. J. F. Druar, St. Paul, Minn., is Consult. Engr.

St. Paul, Minn.—The lowest bid submitted for the construction of the Maplewood-Glenham Sewer System was that of Thornton Bros., at $22,300.

✚**Clay Center, Kan.**—The contract for the construction of sewers has been awarded to the B. C. S. CONSTRUCTION CO., Kansas City, Mo., at $7708.

Pratt, Kan.—Plans are being prepared by G. W. Ellis, Engr., for the extension of the sanitary sewers about four miles.

Topeka, Kan.—The contract will be awarded about Aug. 2 for the construction of the East Side sewer which will be approximately 20 miles long. The estimated cost is $210,000.

Lincoln, Neb.—Plans are being prepared for the construction of storm sewers in 23rd St. from R to W St. The estimated cost is $40,000. A. Dobson is Engr.

Wausa, Neb.—Plans are being prepared for the construction of sewers and a sewage-disposal plant. The estimated cost is $18,000. P. A. Edquist, Omaha, is Engr., and F. E. Anderson is City Clk.

✚**Butte, Mont.**—It is reported that the contract for the construction of storm sewers has been awarded to E. LINDSTROM, Billings, at $25,000. Noted Apr. 8.

Whitehall, Mont.—(Official)—Bids will probably be received about Aug. 15 for the construction of sewer and water systems. The estimated cost is $30,000. G. E. Baker is City Engr. Noted June 10.

✚**St. Louis, Mo.**—(Official)—Bids were received June 9 for the construction of the Maplewood Public Sewer No. 1 as follows: CONNEY CONSTRUCTION CO., $51,938 (awarded contract); N. B. Watters & Son, $44,860; Century Construction Co., $58,491; Kamp-Lewald Engineering Co., $68,874 ;John F. McMahon, $65,010; Strubel Helmich, $62,683; E. C. Davis, $82,-724; Thomas Connor & Sons, $97, 541; Fruin-Colnon Contracting Co., $90,233.

St. Louis, Mo.—The city contemplates the following sewer work: Baden Sewer, District No. 2, $49,000; Harlem Creek Sewer, District No. 12, $7900; Harlem Creek Sewer, District No. 13, $11,400; Penrose Joint District Sewer, $7600.

Austin, Tex.—At a recent election the citizens voted to issue $50,000 in bonds. The proceeds will be used for the construction of sanitary sewers. Noted May 13.

Beeville, Tex.—An election will be held July 12 to vote on the question of issuing $15,000 in bonds. The proceeds will be used for extending the sewer system 25,670 ft. Bartlett & Ranney, San Antonio, is Consult. Engr. Noted June 17.

Houston, Tex.—The State Attorney General has approved a bond issue of $500,000 for the construction of sanitary sewers.

West, Tex.—An election will be held in July to vote on the question of issuing $12,000 in bonds. The proceeds will be used for the construction of a sewer system.

Mesa, Ariz.—Plans are being prepared by H. Hancock, Engr., Phoenix, for the construction of a sewer system. The estimated cost is $75,000. Noted June 3.

✚**Chehalis, Wash.**—(Official)—The contract for the construction of a sewer system has been awarded to HURD & DECAMP, Spokane, at $17,575. Noted June 3.

Port Angeles, Wash.—The lowest bid submitted for the construction of a sewer system was that of Metler & Coyne, Port Angeles, at $37,804.

Port Angeles, Wash.—Bids will be received until June 29 by J. L. Beam, City Clk., for the construction of a sewer system in the North Side. The estimated cost is $50,000.

Pullman, Wash.—The city contemplates the construction of trunk, lateral and subsewers estimated to cost $10,000. M. F. Gannon is Clk.

Seattle, Wash.—Plans have been approved by the Board of Public Works for the construction of sewers estimated to cost $50,000. Bids will be received about July 1 by L. B. Young, Chn., Bd. of Pub. Wks.

Beaverton, Ore.—Louis C. Kelsey, Consult. Engr., Portland, is preparing plans for the construction of a sewer system. Bids will be received early in July. The estimated cost is $25,000.

Mt. Angel, Ore.—Plans are being prepared by Louis C. Kelsey, Consult. Engr., Portland, for the construction of a sewer system and a septic tank. The estimated cost is $10,000. Noted Oct. 1.

✚**North Bend, Ore.**—(Official)—The contract for sewer construction has been awarded to EDWARD SANDEBERG, Portland, at $16,438. Other bids were: C. G. Randler, Portland, $19,125; J. Olsen-Bodi Co., Portland, $22,473; James Kennedy, Portland, $17,929; Livingston Construction Co., Coquille, $23,-463; McLain & McLain, Marshfield, $21,500; Tibbetts-Pacific Co., San Francisco, Calif., $17,221. Noted June 3.

Alameda, Calif.—Bids will be received until 7:30 p.m., July 6, by R. E. Bosshard, City Clk., for sewer construction.

Alameda, Calif.—The city contemplates the construction of a sewer in Arbor St. with an outlet to the Brooklyn basin. The estimated cost is $10,000.

Corning, Calif.—(Official)See item under "Water Supply—Irrigation."

★**Imperial, Calif.**—(Official)—Bids will be received until 8 p.m., July 14, by L. Toste, City Clk., for the sale of $65,000 in bonds. The proceds will be used for the construction of a part of a sewer system that will pass through the city from El Centro. Noted June 10.

✚**Los Angeles, Calif.**—The contract for the construction of sewers in Washington St. from Greenshaw Blvd. to Fifth Ave. has been awarded to ADAM DALMATIN, at $10,460. Noted June 17.

San Diego, Calif.—The city contemplates the construction of a septic tank to replace the South septic tank and the construction of sewers.

✚**San Francisco, Calif.**—The Board of Public Works has awarded the contract for the construction of a sewer in Fifth Ave. from Howard to Brannan St. to the HEALY-TIBBITTS CONSTRUCTION CO., at $65,000. Noted June 3.

Stockton, Calif.—(Official)—At a recent election the citizens voted to issue $550,000 in bonds. The proceeds will be used for the construction of storm water and sanitary sewer systems. George W. Pulich is City Clk. Noted May 27.

Visalia, Calif.—An election will soon be held to vote on the question of issuing $65,000 in bonds. The proceeds will be used for the construction of additions to the sewer system.

Brantford, Ont.—Plans have been prepared for the construction of sanitary sewers in Burford, Sterling and Water St. The estimated cost is $6000. T. H. Jones is Engr.

✚**Winnipeg, Man.**—The contract for the construction of two sections of the Jefferson Ave. sewer has been awarded to THOMAS JACKSON & SON, at $105,727.

✚**Winnipeg, Man.**—The contract for sewer pipe has been awarded to the ONTARIO SEWER PIPE CO., at $6410.

Vancouver, B. C.—Bids will soon be received for the following sewer work: 20th St. sewer, $20,000; 19th St. sewer, $14,500; Victoria Drive sewer, $12,000; 14th and 15th St. sewer, $16,000.

GARBAGE

West Hoboken, N. J.—(Official)—Bids will be received until 8 p.m., June 30, by the town for the removal of ashes and garbage. A. Q. Wachlin is Town Clk.

Roanoke, Va.—Bids will be received until June 29 by P. H. Tucker, City Clk., for motor street-sweeping machines.

Galesburg, Ill.—The installation of an incinerator by the Alis Garbage Disposal Co., Peoria, is under consideration.

✚**Rock Island, Ill.**—The contract has been awarded to the FLASCH INCINERATOR CO., Conway Bldg., Chicago, at about $16,000, for installing an incinerator. Noted Dec. 3 and Mar. 18.

✚**Minneapolis, Minn.**—(Official)—The contract has been awarded to STACY-BATES CO., McKnight Bldg., Minneapolis, for the installation of a 50-ton Decarie incinerator. Bonds for $18,000 have been voted.

STREETS AND ROADS

Burlington, Vt.—(Official)—All bids received June 15 by the Board of Street Commissioners for constructing walks, curbs and gutters were rejected. Noted May 27.

Blackstone, Mass.—Press reports state that the Town Council has appropriated $8000 for laying granolithic sidewalks on Main St. James H. McCoey is Chn. of Selectmen.

Boston, Mass.—(Official)—Bids will be received until noon, June 28, by the Commisisoner of Public Works, for paving Peacevale Rd. from Norfolk St. to Dunbar Ave., Dorchester District.

Boston, Mass.—Bids will be received until June 29 by the State Highway Commissioner for the construction of 3700 lin.ft. of road in Danvers. Arthur W. Dean, 15 Ashburton Pl., is Ch. Engr.

Boston, Mass.—(Official)—Bids will be received until noon, June 29, by the State Highway Commission for 7500 bbl. of portland cement.

Hubbardston, Mass.—The town will build about 6000 ft. of state highway this summer, having received a grant of $2000 from the state, and $1000 from the county. The town will receive $500 from the small town act and appropriate $1000, making $4500 in all.

✚**Newton, Mass.**—(Official)—A contract for constructing artificial stone curbing, walks and driveways has been awarded to the SIMPSON BROS. CORPORATION. Noted May 6.

Tiverton, R. I.—(Official)—Bids will be received until 2:30 p.m., July 3, by the Town Clerk for constructing the Stafford Rd. Edward M. Corbett, 70 Bedford St., Fall River, Mass., is Engr.

✚**Woonsocket, R. I.**—The contract for paving West School, South Main and Clinton St. has been awarded to the SIMPSON BROS. CORPORATION, Boston, at $43,000. Noted May 6.

★**Meriden, Conn.**—(Official)—Bids will be received until 8 p.m., June 29, by the Board of Public Works for constructing wood block, vitrified brick and reinforced-concrete pavements on East and West Main St.

.. **Stamford, Conn.**—Bids will be received until June 30 by the Common Council for paving a portion of Summer St. Paul Nash is City Engr.

★**Albany, N. Y.**—(Official)—Bids will be received until 1 p.m., July 13, by Edwin Duffey, State Highway Comr., for improving highways in various counties, also, until 1 p.m., July 15, for constructing and repairing highways in various counties.

✚★**Albany, N. Y.**—(Official)—Bids were received June 16 by Edwin Duffey, State Highway Comr., for constructing highways as follows:

Road No. 1239, Broome County, 0.68 mile: LANE CONSTRUCTION CORPORATION, Meriden, Conn., $10,738 (awarded contract); Joseph W. Heisler & Co., Schenectady, $10,919; Nash & Griffin, Norwich, $11,089; James T. Moore, Elmira, $11,273; George Holler, Albany, $11,294; W. E. Bennett, Lanesboro, Penn., $11,627; Paddleford & King, Sherburne, $11,877; Juniata Co., Philadelphia, Penn., $11,878; Newman Concrete Road Co., Athens, Penn., $11,994; Port Jervis Construction Co., Port Jervis, $12,230; William C. Evans, Ambler, Penn., $12,382; Joseph Walker Construction Co., Albany, $12,523.

Road No. 1241, Broome County, 2.32 miles: LANE CONSTRUCTION CORPORATION, Meriden, Conn., $20,750 (awarded contract); F. P. Meckes, Long Pond, Penn., $23,138; John H. Gordon, Albany, $23,742; Juniata Co., Philadelphia, Penn., $23,-911; James T. Moore, Elmira, $24,049; Paddleford & King, Sherburne, $24,087; Joseph Walker Construction Co., Albany, $24,152; William C. Evans, Ambler, Penn., $24,495; George Holler, Albany, $25,086; Joseph McCormick, East Providence, R. I., $25,328; John F. Dolan Contracting Co., New York, $26,273.

Road No. 1273, Delaware County, 2.50 miles: BLANKFIELD & DONOVAN, Kingston, $23,650 (awarded contract); Ruddy-Saunders Construction Co., Troy, $24,112; De Graff & Hogeboom, Inc., Kingston, $24,168; John A. Jova, Inc., Newburgh, $25,431; William C. Evans, Ambler, Penn., $26,370.

Road No. 5554, Fulton County, 4.58 miles: C. W. Tryon, Boyntonville, $42,030; Clarence Walsh & Co., Gloversville, $42,-507; LANE CONSTRUCTION CORPORATION, Meriden, Conn., $43,369 (awarded contract); Dale Engineering Co., Utica, $44,-326; Gallway & Co., New York, $45,250; E. T. Eggleston, Yonkers, $45,404; D. I. Snell & Co., Canajoharie, $45,737; Brady-Oltarsh Construction Co., Inc., New York, $46,579; John A. Jova, Inc., Newburgh, $46,739; Criswell & Mallory, Inc., Mechanicsville, $48,906; Martin Murray & Co., Troy, $48,987; McNerney Construction Co., Canton, Penn., $49,462.

Road No. 1098, Hamilton County, 4.22 miles: John J. Guinan Contracting Co., Brooklyn, $38,258; JOHN J. LEWIS, Albany, $38,473 (awarded contract); John A. Jova, Inc., Newburgh, $40,892; Dale Engineering Co., Utica, $40,931; Gallway & Co., New York, $40,947; Brady-Oltarsh Construction Co., Inc., New York, $42,020; Juaniata Co., Philadelphia, $42,656; Peter F. Connolly Co., Horseheads, $43,298; John H. Gordon, Albany, $43,410; Young & Hyde, New York, $43,729; Ft. Schuyler Construction Co., Inc., Oneida, $43,756.

Road No. 1100, Hamilton County, 4.54 miles: GALLAWAY & CO., New York, $43,720 (awarded contract); J. D. Moynehan & Co., Inc., Mohawk, $4,575; Brady-Oltarsh Construction Co., Inc., New York, $44,924; Langan Construction Corporation, Albany, $45,113; Fred E. Ellis, Melrose, Mass., $46,753; James Anderson, Albany, $48,042.

Road No. 5332-B, Louis County, 6.86 miles: SPELLMAN-OLIVER CO., Chateaugay, $72,552 (awarded contract); Fred E. Gross & Son, Yonkers, $73,572; Cattaraugus Engineering Co., Olean, $75,309; Thomas Grady, Rochester, $75,426; Richard Hopkins, Troy, $75,666; Juniata Co., Philadelphia, Penn., $75,946; McNerney Construction Co., Canton, Penn., $76,107; Weed & Walsh, Mechanicsville, $76,146; Brady-Oltarsh Construction Co., Inc., New York, $76,632; E. T. Eggleston, Yonkers, $76,742.

Road No. 1283, Monroe County, 4.54 miles: CLEVELAND & SONS CO., Brockport, $33,561 (awarded contract); Chambers & Barnes, Rochester, $34,178; Whitmore-Rauber & Vicinius, Rochester, $34,299; Harold J. Shields, Albany, $34,963; Brady-Oltarsh Construction Co., Inc., New York, $34,971; Galway & Co., New York, $34,972; Morrissey & Quinn, Inc., Rochester, $35,431; J. W. Brennan Construction Co., Inc., Geneva, $35,525; McNerney Construction Co., Canton, Penn., $35,525; John C. Bradley & Co., Corning, $35,883.

Road No. 1284, Monroe County, 6.05 miles: Fred E. Gross & Sons, Yonkers, $35,274; PETER F. CONNOLLY CO., Horseheads, $35,754 (awarded contract); Cleveland & Sons, Brockport, $36,116; E. R. Weed & Son, Holley, $37,037; Dale Engineering Co., Utica, $37,894; Greece Construction Co., Rochester, $37,947; McNerney Construction Co., Canton, Penn.,$38,641; John M. Fitzwater, Rush, $39,063; John Johnson Construction Co., Buffalo, $39,516; Whitmore-Rauber & Vicinius, Rochester, $39,660; George Holler, Albany, $39,662.

Road No. 5560, Niagara County, 1.32 miles: JOHN W. LANDEL, Tonawanda, $29,719 (awarded contract); Dunkirk Construction Co., Dunkirk, $29,970; McNerney Construction Co., Canton, Penn., $30,578; Fred W. Knickenberg, Buffalo, $31,309; John Johnson Construction Co., Buffalo, $31,861; Cattaraugus Engineering Co., Olean, $32,838; C. B. Whitmore & Co., Lockport, $32,848.

Road No. 5561, Niagara County, 4.42 miles: FRED W. KNICKENBERG, Buffalo, $53,854 (awarded contract); John W. Landel, Tonawanda, $54,618; Dunkirk Construction Co., Dunkirk, $55,040; Servis & Mackey, Youngstown, $55,702; J. A. Culkin, Oswego, $56,135; Crescent Concrete Co., Buffalo, $56,624; Criswell & Mallory, Inc., Mechanicsville, $57,332; McNerney Construction Co., Canton, Penn., $57,394; Woolsey Construction Co., Poughkeepsie, $57,918.

Road No. 5562, Niagara County, 2.33 miles: McNERNEY CONSTRUCTION CO., Canton, Penn., $41,121 (awarded contract); Fred W. Knickenberg, Buffalo, $41,838; John F. Dolan Contracting Co., New York, $43,617; Woolsey Construction Co., Poughkeepsie, $43,696; Servis & Mackey, Youngstown, $43,826; J. A. Culkin, Oswego, $44,128; John Johnson Construction Co., Buffalo, $45,175; Cattaraugus Engineering Co., Olean, $45,452; C. B. Whitmore Co., Lockport, $47,991; F. J. Mumm Contracting Co., Buffalo, $53,592.

Road No. 1074, Onondaga County, 1.91 miles: JOHN DAVIN, Syracuse, $40,977 (awarded contract); Antonio Mando, Syracuse, $42,145; William H. Ring Contracting Co., Ogdensburg, $43,245; M. J. Gleason & Co., Syracuse, $43,274; Frank L. Malone, Syracuse, $43,300; Fred E. Gross & Son, Yonkers, $44,406; C. T. Hookway Construction Co., Syracuse, $44,843; Phelan & Sullivan, Utica, $44,992; Sullivan Construction Co., Syracuse, $45,030; Guy S. Dickison, Syracuse, $45,358; Criswell & Mallory, Inc., Mechanicsville, $45,678; Cattaraugus Engineering Co., Olean, $45,888.

Road No. 582, Orleans County, 2.46 miles: Brady-Oltarsh Construction Co., Inc., New York, $20,122; Thomas Hucknall, Albion, $22,568; GREECE CONSTRUCTION CO., Rochester, $23,171 (awarded contract); Chambers & Barnes, Rochester, $23,499; Rhody & Clawson, Albion, $23,908; Wood & Tompkins, Hilton, $24,177; Fred E. Gross & Sons, Yonkers, $24,204; McNerney Construction Co., Canton, Penn., $24,439; Thomas Holohan, Rochester, $24,543; Thomas Grady, Rochester, $24,844.

Road No. 1293, Orleans County, 1.80 miles: GOODRICH & TRUESDALE, Barnard, $17,005 (awarded contract); Rhodey & Clawson, Albion, $17,593; McNerney Construction Co., Canton, Penn., $18,055; E. R. Weed & Son, Holley, $18,270; Fred W. Knickenberg, Buffalo, $18,337; Cattaraugus Engineering Co., Olean, $18,533.

Road No. 1120, Rensselaer County, 0.34 mile: MARTIN MURRAY & CO., Troy, $15,058 (awarded contract); Belmar Contracting Co., Inc., Troy, $15,290; Abner H. Harper, Inc., Newburgh, $15,395; Gleason & Davitt, Albany, $15,520; Philip Dorlon, Troy, $16,286; Gifford Construction Co., Jamaica, $16,341; Thomas H. Karr, Troy, $16,411; County Construction Co., Troy, $16,512; George Holler, Albany, $16,673; Parker-Hassam Paving Co., Worcester, Mass., $16,741; Edward J. O'Brien, Stillwater, $16,908.

Road No. 1164, Rensselaer County, 0.88 mile: GLEASON & DAVITT, Albany, $7,976 (awarded contract); Edward Hendert, Averillpark, $8033; George Holler, Albany, N. Y., $8187; County Construction Co., Troy, $8307; Thomas H. Karr, Troy, $8686; John Flynn, Jr., Troy, $8857; Berman Contracting Co., Inc., Troy, $8932.

Road No. 5563, Niagara County, 5.07 miles: CATTARAUGUS ENGINEERING CO., Olean, $74,706 (awarded contract); McNerney Construction Co., Canton, Penn., $75,924; John Johnson Construction Co., Buffalo, $76,041; Woolsey Construction Co., Poughkeepsie, $76,311; John W. Landel, Tonawanda, $76,811; C. B. Whitmore Co., Lockport, $79,876.

Road No. 5559, Oneida and Herkimer Counties, 8.89 miles: C. W. TRYON, Boyntonville, $67,990 (awarded contract); Fred E. Gross & Sons, Yonkers, $68,834; Semper Bros., Watertown, $69,393; J. G. Hayes Co., Inc., Rome, $71,782; Dale Engineering Co., Utica, $72,888; Brady-Oltarsh Construction Co., Inc., New York, $74,932; Criswell & Mallory, Inc., New York, $74,932; Criswell & Mallory, Inc., Mechanicsville, $75,010; E. T. Eggleston, Yonkers, $75,536; B. F. S. Co., Herkimer, $76,127; Peter F. Connolly Co., Horseheads, $76,853; Newport Construction Co., Herkimer, $77,292.

Road No. 1072, Onondaga County, 3.06 mile: PHELAN & SULLIVAN, Utica, $53,321 (awarded contract); Frank S. & Anthony Sporato, Syracuse, $55,709; Antonio Mondo, Syracuse, $55,709; Albert Gaffey, Syracuse, $56,434; Richard Hopkins, Troy, $57,849; Chambers & Barnes, Rochester, $57,892; Newport Construction Co., Herkimer, $59,335; Dana W. Robbins, Inc., New York, $59,657; Fred E. Gross & Sons, Yonkers, $60,725; McNerney Construction Co., Canton, Penn., $61,512.

Road No. 1073, Onondaga County, 7.23 miles: CRISWELL-MALLORY CO., INC., Mechanicsville, $85,388 (awarded contract); Fred E. Gross & Son, Yonkers, $86,761; Chambers & Barnes, Rochester, $89,099; Albert Gaffey, Syracuse, $89,768; Gallway & Co., New York, $89,953; J. H. Weidman, Syracus $90,159; Thomas Grady, Rochester, $90,670; John H. Gordo Albany, $92,192; M. J. Gleason & Co., Syracuse, $92,297; Sull van Construction Co., Syracuse, $92,526; C. W. Tryon, Boynton ville, $92,819; Weed & Walsh, Mechanicsville, $93,579. Note June 3.

★**Albany, N. Y.**—(Official)—Bids will be received unt 1 p.m., July 7, by Edwin Duffey, State Highway Comr., fo repairing highways in various countries.

Buffalo, N. Y.—The Common Council plans to pave Frontenac, Lyndhurst and Virgil Ave. with asphalt.

✚**Little Falls, N. Y.**—The contract for paving and curbin a portion of East Monroe St. has been awarded to WARREN BROS. CO., at $22,959.

New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received by L. H. Pounds, Borough Pres., until 11 a.m., June 30, for regulating, repaving, grading, etc., various streets in the borough.

New York, N. Y.—(Borough of Queens)—(Official)—Bids were received June 18 by Maurice E. Connolly, Borough Pres. for improving (a) Fourth Ave. from Jackson to Washington Ave., (b) 12th Ave. from Grand to Jamaica Ave., (c) Payntar Ave. from Sherman to Crescent St., (d) Stephens St. from Wyckoff to Seneca (Covert) Ave., (e) Freeman Ave. from Crescent to Jackson Ave. as follows: Evergreen Construction Co., 130 Third Ave., Long Island City, (a) $4701, (c) $20,826; Gifford Construction Co., (a) $4746; C. Vanderbilt, (a) $5166, (c) $21,925; Welsch Bros., (a) $4790; Clancy & Nuhn, (a) $5945, (c) $20,612; C. A. Myers Contracting Co., Cypress and Willows Ave., Brooklyn, (a) $4838, (c) $20,737; Barber Asphalt Paving Co., (b) $7177, (d) $8587, (e) $18,400; Sicilian Asphalt Paving Co., 41 Park Row, (b) $5335, (d) $6643; Aztec Paving Co., (b) $5843, (d) $7799; Borough Asphalt Co., (b) $5595, (d) $6960, (e) $17,824; Uvalde Asphalt Paving Co., (b) $5406, (d) $6730; Queens Plaza, (c) $22,944; H. J. Mullen Contracting Co., (c) $20,798; Hastings Paving Co., 25 Broad St., (e) $17,824. Noted June 10.

✚**Troy, N. Y.**—The contract for paving Hoosick St. from 10th St. to the city line has been awarded to the PARKER HASSAM PAVING CO., at $51,226. Noted May 27 and June 10.

Troy, N. Y.—Bids will be received until 11 a.m., June 25, by the Board of Contract and Supply for improving Glen Ave. from River St. to Winnie Ave.

✚**Troy, N. Y.**—The contract for repaving Fourth St. from Congress to Fulton St. with granite block has been awarded to the PARKER HASSAM PAVING CO., at $22,949. Noted May 27 and June 10.

✚**Victor, N. Y.**—The contract for paving Main and Cedar St. has been awarded to the SCHROEDER-HICKS CONTRACTING CO., Rochester, at approximately $23,272. Noted Apr. 22.

★**Belvidere, N. J.**—(Official)—Bids will be received until 11:45 a.m., July 2, by the Board of Chosen Freeholders of Warren County for surface treatment of 194,000 sq.yd. of the county highways in Warren County, also for repairs to the macadam road leading from Hackettstown to Allamuchy. J. R. Thatcher is Dir. of Bd.

East Orange, N. J.—The Finance Committee of the City Council has approved an appropriation of $92,500 for the maintenance of city roads during the current year.

Florence, N. J.—Press reports state that the Township Council plans to issue $65,000 in bonds, the proceeds of which will be used for paving and curbing the principal thoroughfares.

Keyport, N. J.—Bids will soon be received by the town for laying a new concrete road on Broad St. George D. Cooper is Engr.

✚**Newark, N. J.**—The contract for constructing a concrete roadway on Springfield Ave. has been awarded to the FRANKLIN CONTRACTING CO., Vanderbilt Ave., New York, at approximately $13,500. Noted June 10.

Newark, N. J.—Bids were received June 17 for paving Ferry St. from Market to Merchant St. as follows: Glenfield Construction Co., Newark, $34,261; John E. Donovan, $36,531; John S. Geiger & Son, Newark, $35,400; Van Keuren & Son, $35,153; Newark Paving Co., $36,094; Ralph Sangiovanni, $35,454. Noted May 20 and June 3.

Newark, N. J.—According to press reports the City Council has authorized the expenditure of $51,000 to pay the additional cost of widening Center St. at Mulberry St.

New Brunswick, N. J.—(Official)—Bids were received June 15 by the Commissioners of Middlesex County for improving St. George's Ave., as follows: T. F. Dunigan, Woodbridge, $65,819; Northern Construction Co., $69,882; Liddle & Pfeiffer, Perth Amboy, $65,286; M. I. Demarest, Sewaren, $67,059; T. H. Riddle, New Brunswick, $67,043; Utility Construction Co., $72,014; Weldon Contracting Co., Rahway, $68,446; Garafano Contracting Co., $64,403. All bids referred to the Road Committee. Noted Apr. 29 and June 10.

New Brunswick, N. J.—Press reports state that the Board of Chosen Freeholders of Middlesex County will improve the Bonhamtown-Woodbridge Rd., Third Ave., Highland Park, and the Keasbey Rd., Woodbridge.

Passaic, N. J.—C. R. Wise, Engr., Municipal Bldg., Passaic, is preparing plans for paving Summer St. with asphalt-bound macadam.

Ridgefield Park, N. J.—The town is considering paving Brinkerhoff St. with amiesite.

✚**Allentown, Penn.**—Contracts have been awarded for paving 17th St. from Howard to Maple St. and East Hamilton St. and Hanover Ave. to the BARBER ASPHALT PAVING CO., at $1.75 and $1.76 per sq.yd. respectively.

★**Lebanon, Penn.**—(Official)—Bids will be received until 5 p.m., July 1, by the City Council for paving portions of Eighth, Ninth and Lehman St. T. R. Crowell is City Engr. and D. M. Sharp is City Clk.

Philadelphia, Penn.—(Official)—Bids were received for improving the Northeast Blvd. from Rhawn St. northward, including the branches, as follows: McNichol Paving &

Construction Co., 1923 Cherry St., $285,546; Bower & Ruch, Wayne and Roberts Ave., $303,273; James McGraw Co., 1010 Commercial Trust Bldg., $397,219. Noted June 3.

✚**Pittsburgh, Penn.**—A contract for 15,000 tons of asphalt mixture to be used in the resurfacing of the Allegheny County roads has been awarded to the BOOTH & FLINN CO., LTD. Noted June 3.

✚**Pittsburgh, Penn.**—(Official)—Contracts have been awarded for constructing roads in Allegheny County as follows: Middletown Rd. and Oakwood Rd. to M. OTT & CO., at $31,013 and $9990 respectively; Wible and Thompson Rd. to JOHN FOLEY, at $34,815; Bower Hill Extension Rd. and Jacks Run Rd. to COLLINS-GORDON CO., at $4369 and $28,969, respectively. Noted June 3.

Scranton, Penn.—The City Council plans to pave Wyoming Ave. from Larch to Marion Ave. with sheet asphalt, at an estimated cost of $22,749.

Wesleyville, Penn.—At a recent election the citizens voted in favor of issuing $81,000 in bonds, the proceeds of which will be used for paving Buffalo Rd.

★**Cumberland, Md.**—(Official)—Bids will be received until 9:30 a.m., July 7, by the City Council for improving Baltimore St.

Frederick, Md.—Bids will be received until July 3 by the Commissioners of Frederick County for constructing approximately 1.83 miles of State Aid road near Petersville, and 1.04 miles in Brunswick.

Roland Park, Md.—Press reports state that the residents of Roland Park and vicinity have raised about $21,000 toward the improvement of Roland Ave. from the end of the present pavement to Lake Ave. The estimated cost is $50,000.

Broad Oaks, W. Va.—Press reports state that an election will be held June 30 to vote on the question of issuing $22,500 in bonds for street paving.

Pineville, W. Va.—The citizens of Wyoming County will hold an election June 28 to vote on the question of issuing $550,000 in bonds. The proceeds will be used for the construction of roads.

Spencer, W. Va.—At a recent election the citizens voted to issue $100,000 in bonds. The proceeds will be used for the construction of roads in Duval District, Roane County.

Gastonia, N. C.—An election will be held Aug. 3 to vote on the question of issuing $150,000 in bonds. Part of the proceeds will be used for road construction in Gastonia County.

✚**Atlanta, Ga.**—The contract for paving Grant St. with wood blocks has been awarded to JAMESON HOLLOWELL, at $20,000.

Folkston, Ga.—The city contemplates holding an election to vote on the question of issuing $100,000 in bonds. Part of the proceeds will be used for the construction of roads in Charlton County.

Bradentown, Fla.—An election will be held some time in July to vote on the question of issuing $9000 in bonds. The proceeds will be used for grading streets.

Bradentown, Fla.—The Manatee County Parish Road and Bridge Districts will hold an election July 19 to vote on the question of issuing $110,400 in bonds. The proceeds will be used for the construction of roads.

Brooksville, Fla.—The city contemplates paving Main St.

De Land, Fla.—An election will be held July 13 to vote on the question of issuing bonds for $90,000, the proceeds of which will be used for the construction of roads in Volusia County, Orange City District.

Lake City, Fla.—All bids received May 31 for paving various streets, estimated to cost $20,000, were rejected. Noted May 20.

Anniston, Ala.—According to press reports the Commissioners of Calhoun County will survey a road through the mountains from Anniston to Heflin.

Birmingham, Ala.—Julian Kendrick, City Engr., and George Clark, County Engr., will survey routes for the construction of three highways between Birmingham and the Warrior River.

Fayette, Ala.—Bids will be received until July 6 by the Fayette County Commissioners for graveling a section of the Fayette and Tuscaloosa Rd. The estimated cost is $4616.

✚**Huntsville, Ala.**—The Board of Commissioners of Madison County has awarded the contract to FRANK POWELL,. at $11,500, for building the Big Cove Pike. Noted May 13.

Gulfport, Miss.—The Harrison County Supervisors contemplate the construction of a beach road from Gulfport to Biloxi.

★**Chattanooga, Tenn.**—(Official)—Bids will be received until 10 a.m., July 9, by E. D. Bass, Comr. Dept. Streets and Sewers, for repaving portions of market and East Ninth St.

Elizabethton, Tenn.—An election will be held July 5 to vote on the question of issuing $360,000 in bonds. The proceeds will be used for the construction of roads in Carter County.

Maryville, Tenn.—A bond issue of $300,000, the proceeds of which was to have been used for the construction of roads, has been declared illegal. Noted Feb. 11.

Maynardville, Tenn.—The Commissioners of Union County contemplate an expenditure of $100,000 for improving roads in the county.

Sweetwater, Tenn.—An election will be held July 22 to vote on the question of issuing $15,000 in bonds. The proceeds will be used for street improvements. W. T. Lenoir is Mayor.

Carlisle, Ky.—The Nicholas County Fiscal Court rejected all bids received for the construction of the Carlisle and Sharpsburg Turnpike. Noted Jan. 28 and Mar. 18.

✚**Hopkinsville, Ky.**—A contract for resurfacing and constructing approximately 10 miles of roads has been awarded to C. D. McQUARY, Adams, Tenn., at $40,000.

✚**Lancaster, Ky.**—A contract for constructing approximately eight miles of macadam road in Garrard County has been awarded to HUGHES BROS., Lancaster.

Lexington, Ky.—The city contemplates paving South Broadway and Angliand St.

✚**Bellevue, Ohio**—(Official)—The contract for paving a portion of South West St. with brick has been awarded to R. L. GREENSLADE, 314 West Main St., Bellevue, at $5545. Noted June 17.

Cincinnati, Ohio—(Official)—Bids will be received until noon, July 9, by the Commissioners of Hamilton County for widening and macadamizing Plainfield Rd. from Montgomery Pike at Silverton to Woodford Rd. at Kennedy, in Columbia Township.

✚**Cincinnati, Ohio**—The contract for improving the Werk Rd. has been awarded to JOHN NICKOSEN, at $9717. Noted May 20.

Columbus, Ohio—(Official)—Bids will be received until 2 p.m., June 29, by the State Highway Commissioner for improving roads in various counties.

✚**Columbus, Ohio**—Contracts have been awarded for paving as follows: Weaver St. from Tompkins to Maynard St. to B. F. PETTERSON, Columbus, at $6739; Indianaola Blvd. from Summit to Fourth St. to the CLEVELAND TRINIDAD PAVING CO., Cleveland, at $4658; Richmond Ave. to A. G. PUGH, at $8162.

Lorain, Ohio—Bids will be received until July 13 by George N. Damon, City Audr., for the sale of $16,000 in bonds, the proceeds of which will be used for improving streets.

✚**New Boston, Ohio**—(Official)—A contract for constructing 60,138 sq.yd. of pavement and 35,090 lin.ft. of combined concrete curb and gutter has been awarded to KELLY BROS., Portsmouth, at $93,016. Noted June 6.

Polk, Ohio—Bids will be received until noon, July 2, by Frederick Hartsel, Clk., Bd. of Trustees of Jackson Township, for improving and paving 10 miles of roadway in Jackson Township. R. T. Scantlebury, Ashland, Ohio, is County Engr. Noted May 27.

✚**Struthers, Ohio**—The contract for paving Broad St. has been awarded to M. P. CONNELLY & SON, at $8720.

Tiffin, Ohio—(Official)—Bids will be received until July 25 by O. J. Oberlander, City Engr., for improving four streets.

✚**Auburn, Ind.**—The contract for constructing the Butler-Jackson Township line road has been awarded to DAVENPORT & McREYNOLD, Kokomo, at $19,600.

✚**Franklin, Ind.**—The Commissioners of Johnson County have awarded the contract to HOVEY BROS., Trafalgar, at $4820 for constructing a gravel road in Pleasant Township.

✚**Richmond, Ind.**—The contract for paving approximately 10 blocks of North A St. has been awarded to the ANDREWS ASPHALT PAVING CO., at $36,000. Noted Apr. 22.

Hancock, Mich.—(Official)—The City Council will pave Front and Reservation St. The work will be done by the city forces. Noted erroneously June 10 as Houghton, Mich.

Manistique, Mich.—Press reports state that bonds for $75,000 were sold, the proceeds of which will be used for constructing and improving roads in Schoolcraft County. Noted May 13.

✚**Newberry, Mich.**—A contract for constructing 5½ miles of road in Luce County has been awarded to GUST FREDUN, Norway, Mich.

✚**Sault Ste. Marie, Mich.**—(Official)—The contract for paving Portage Ave. from Bingham Ave. to the Portage Ave. bridge has been awarded to the CLEVELAND TRINIDAD PAVING CO., Cleveland, Ohio. Noted May 27.

Cairo, Ill.—Bids will be received until 11 a.m., June 28, by W. H. Ward, Pres. of the Bd. of Local Impv., for paving in District No. 2.

Elgin, Ill.—(Official)—Bids will be received until 11 a.m., June 26, by the city for improving a portion of North State St. Morgan H. Brightman is Engr.

Rock Island, Ill.—The Board of Local Improvements has approved the plans for paving Ninth St. with brick, at an estimated cost of $84,749.

Springfield, Ill.—(Official)—Bids will be received until 11 a.m., June 30, by the State Highway Commission for constructing roads in various counties.

.. **Milwaukee, Wis.**—All bids received for paving Grand St. from Fourth to Ninth St. have been rejected. New bids will soon be asked. F. G. Simmons is Comr. of Pub. Wks. Noted May 27.

New London, Wis.—All bids received June 1 for constructing approximately 1½ miles of road were rejected. Noted May 20.

✚**Racine, Wis.**—The contract for paving Center St. with vitrified brick has been awarded to JAMES CAPE & SON, Racine, at $2.12 per sq.yd.

✚**Stevens Point, Wis.**—A contract for constructing concrete pavements and grading in Portage County has been awarded to the GURFEY & WIRZENBERG CO., Kaukauna, at approximately $15,000.

✚**Two Rivers, Wis.**—(Official)—A contract for grading, curbing and macadamizing portions of various streets has been awarded to ERNEST J. THIEDE, Two Rivers, at $22,111. Other bids were: Murphy Construction Co., $22,273; Walter O. Barr, $25,345. Noted June 10.

✚**Wausau, Wis.**—The contract for paving the Rothschild and Cedar Creek Roads has been awarded to WINNE & JUSTESEN, Wausau, $21,000.

Oakland, Iowa—Press reports state that bids will be received until June 28 for laying 11,000 yd. of brick or concrete pavement. J. H. Mayne, 235 Merriman Bldg., Council Bluffs, is Engr.

Duluth, Minn.—(Official)—We are advised that the City Council contemplates paving Grand Ave. with brick, at an estimated cost of $132,000.

✚**Duluth, Minn.**—The contract for paving Commonwealth Ave. with brick has been awarded to ROGERS & McLEAN, at $38,728.

Fairmont, Minn.—Bids will be received until 8 p.m., June 29, for laying 24,000 sq.yd. of pavement and 6000 lin.ft. of curbing. Frank O. Jones is City Engr.

Virginia, Minn.—(Official)—The City Council has voted to pave Ash St., Grand and Central Ave., at an estimated cost of $54,000.

+Chanute, Kan.—The contract for paving South Malcom St. with brick has been awarded to the VAN HOFFTEN CONSTRUCTION CO., Joplin, Mo., at $11,794.

+Topeka, Kan.—A contract for constructing 76,000 sq.ft. of concrete sidewalks has been awarded to ROY DILL, Manhattan, Kan.

+Lebanon, Mo.—(Official)—A contract for constructing macadam and concrete pavements and curbs in various streets has been awarded to WOLFF BROS., Jefferson City, Mo., at $12,500. Noted June 10.

Austin, Tex.—Press reports state that the citizens voted in favor of issuing $425,000 in bonds, the proceeds of which will be used for improving streets and building bridges.

Corsicana, Tex.—(Official)—Bids will be received until noon, July 6, by J. A. Harper, City Secy., for improving West Seventh Ave. from South 18th St. to South 28th St.

+Dallas, Tex.—Contracts have been awarded for paving as follows: Oak Lawn, Caddo and Sycamore St. to UVALDE ROCK ASPHALT CO., at $69,381; Bishop St. to LEVY & LEVY, at $38,557; Bellevue St. to the TEXAS BITULITHIC CO., Dallas, at $22,607.

Jourdanton, Tex.—Press reports state that the city will sell $10,000 in bonds, the proceeds of which will be used for improving a number of streets. Noted May 20.

Orange, Tex.—(Official)—An election will be held July 20 to vote on the question of issuing $25,000 in bonds, the proceeds of which will be used for improving a number of streets.

McAlester, Okla.—Bids were received for paving Third St. from McEachin & McEachin, $12,350 and John W. Rooks, $13,593. Noted Oct. 8.

Tulsa, Okla.—An election will soon be held to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for constructing a 14-mile boulevard.

Ft. Collins, Colo.—The F. C. Dreher Construction Co., Denver, at $16,255, submitted the lowest bid for the construction of three miles of the Fall River Rd.

+Boise, Idaho—(Official)—Bids were received June 4 for constructing six miles of the Idaho-Pacific Highway in Washington County as follows: S. C. COMERFORD, Boise, at $6283 (awarded contract); Maney Bros. & Co., Boise, at $7954; Ben Cope, Weiser, at $6874; Whittet & Hall, New Plymouth, at $7417; E. L. Phelps, Weiser, at $6585.

Everett, Wash.—Bids will be received until 2 p.m., June 28, by the Commissioners of Snokomish County for constructing Permanent Highway Nos. 17 and 18.

+Mt. Vernon, Wash.—The contract for constructing the Montborne-McMurray Rd. has been awarded to the QUIGG CONSTRUCTION CO., L. C. Smith Bldg., Seattle, at $11,286.

Olympia, Wash.—Bids will be received until 2 p.m., July 12, by William R. Roy, State Highway Comr., for constructing 15 miles of Olympic Highway between Mud Bay and McCleary, at an estimated cost of $40,000.

Seattle, Wash.—Bids will be received until 10 a.m., July 6, by the Commissioners of King County for constructing Permanent Highway No. 7. Byron Phelps is County Audr. and Clk.

Seattle, Wash.—Bids will be received until 10 a.m., June 29, by the Commissioners of King County for constructing Permanent Highway No. 2 (Wight Rd.), at an estimated cost of $22, 000. Byron Phelps is County Audr. and Clk.

+Seattle, Wash.—The contract for paving Eighth Ave., W., has been awarded to the JAHN CONTRACTING CO., Pioneer Blk., Seattle, at $29,530.

Seattle, Wash.—Plans for the improvement of West Massachusetts St. have been approved by the Board of Public Works and bids will soon be received. The estimated cost of the work is $22,000.

+Gearhart, Ore.—The contract for constructing one mile of hard surface road, 18 ft. wide, has been awarded to the WORSWICK PAVING CO., Astoria.

Portland, Ore.—Bids were received for paving Peninsular Ave. from Lombard St. to Columbia Slough with concrete as follows: Cochran-Nutting & Co., Portland, $23,602; Star Sand Co., Portland, $24,042; Manning & Co., Portland, $25,956; J. M. Ambrose, $24,382; Jeffrey & Bufton, Portland, $25,382.

Seaside, Ore.—The citizens of Astoria, Gearhart and Seaside contemplate an expenditure of $25,000, to be used for the construction of a road from Astoria to Seaside by way of Gearhart.

+The Dalles, Ore.—The contract for constructing the Wasco County road across the Tygh and White Rivers, to connect Kingsley and Wapinitia sections has been awarded to HENRY LENTS, Cromer, at $15,611.

+East San Diego, Calif.—The contract for improving Swift Ave. has been awarded to E. A. McALPIN, San Diego, at $14,344. Noted June 3.

+El Monte, Calif.—M. W. McCOMBS, 516 Bryson Bldg., Los Angeles, has been awarded the contract, at $17,000, for improving Main St.

+Los Angeles, Calif.—The contract for improving 49th St. between Long Beach and Compton Ave. has been awarded to GEORGE R. CURTIS, at $6544.

+Pasadena, Calif.—The contract for paving Wilson Ave. from Colorado St. to Arden Rd. has been awarded to ANDREW HOLLOWAY, at $15,068.

+Riverside, Calif.—SHULL, TUCKER & CO. has been awarded the contract, at $8140, for improving Vine St. from First to Seventh St.

London, Ont.—According to press reports the City Council plans an expenditure of $5200 for constructing gravel roadways. H. A. Brazier is Engr.

Ojibwa, Ont.—Bids will soon be received for laying approximately 3¼ miles of concrete pavement, at an approximate cost of $100,000.

INDUSTRIAL WORKS

+Cambridge, Mass.—The H. J. Heinz Co., Pittsburgh, Penn and 16 Lewis Wharf, Boston, Mass., has awarded the contrac for the construction of a $50,000 garage and warehouse to th R. H. HOWES CONSTRUCTION CO., 7 Water St., Boston, Mas

+Charlestown, Mass.—The contract has been awarded t the W. F. KEARNS CO., 240 Albany St., for the constructio of a two-story, 47x85-ft. garage for Walter S. Glidden. Th estimated cost is $25,000. Warren & Gerrish, 53 State St., Boston, Mass., is Arch.

+Chicopee, Mass.—The Bosch Magneto Co., has awarded the contract for the construction of a two-story, 160x250-ft., brick and steel addition to its plant to the J. W. BISHOP CO., Foster St., Worcester, Mass.

Haverhill, Mass.—Joseph S. Moore of the Slipper City Wood Heel Co., plans the construction of a nine-story, 100x200-ft., brick factory on Hale St.

Lawrence, Mass.—The George E. Kunbardt Co. will build a five-story addition to its plant.

Springfield, Mass.—Work will soon start on the construction of a two-story, 112x125-ft., brick and steel public garage on Ferry St., for M. Alpert, 170 Ferry St.

+Worcester, Mass.—E. D. WARD, 82 Foster St., has been awarded the contract for the construction of a lime storage building and a lumber shed for the Graton & Knight Mfg. Co., Franklin St. Cutting, Carleton & Cutting, 44 Front St., is Arch.

+Woonsocket, R. I.—(Official)—The TURNER CONSTRUCTION CO., 11 Broadway, New York, N. Y., has been awarded the contract for the construction of a five-story, 50x120-ft. reinforced-concrete factory for the Taft Peirce Mfg. Co. Timmis & Chapman, 315 Fifth Ave., New York, N. Y., is Arch.

Bridgeport, Conn.—Logan Bros. Co., Middle St., will build a five-story, 65x110-ft. storage building. F. A. Cooper, Weiggs Bldg., is Arch.

+Hartford, Conn.—The contract for the construction of a five-story, 50x160-ft. factory for the Union Mfg. Co., has been awarded to the H. B. HIBBARD CO. The estimated cost is $60,000.

New Haven, Conn.—The New Haven Pulp & Board Co. will soon start work on the construction of a one-story, 46x290-ft. machine shop, a two-story, 90x102-ft. beater department, and a three-story storage building.

Albany, N. Y.—Bids will soon be received by the Fuller & Robinson Co., Arch., 95 State St., for the construction of a $60,000 addition to the garage of the Albany Garage Co., Howard and William St.

+Brocton, N. Y.—The Peerless Food Products Co., Inc. has awarded the contract to E. J. BAILEY for the construction of a factory, to cost $60,00.

Buffalo, N. Y.—The Buffalo Cold Storage Co., Perry and Columbia St., will build a ten-story cold-storage warehouse on Perry St., to cost $500,000. D. E. Knowlton is Pres.

Buffalo, N. Y.—A three-story, 30x150-ft., brick and steel storage building will be constructed at 475 Ellicott St., for Adam J. Menges, 224 Washington Market. The estimated cost is $35,000. Joseph J. Geigand, 346 Herman St., is Arch.

Buffalo, N. Y.—The American Radiator Co., will build a two-story, brick factory at 110 Ledger St., to cost $55,000.

Buffalo, N. Y.—Bids are being received by the Monarch Engineering Co., Chamber of Commerce Bldg., for the construction of a 12-story, reinforced-concrete elevator and mill for the Clover Leaf Milling Co. D. B. Fraser is Pres. The estimated cost is $250,000.

+Jamestown, N. Y.—(Official)—The contract for the construction of a factory for the Elite Furniture Co. has been awarded to P. ANTON PETERSON. Noted June 17.

+New York, N. Y.—(Borough of Brooklyn)—The Fred Gretsch Mfg. Co., South Fourth St., has awarded the contract for the construction of a ten-story factory to the MOYER ENGINEERING & CONSTRUCTION CO., 375 Fulton St. The estimated cost is $300,000. William Higginson, 17 Park Row (Borough of Manhattan), is Arch. Noted May 6.

New York, N. Y.—(Borough of Manhattan)—The New York Composite Brick Corporation, 201 East 129th St., will build a one-story, 81x137-ft. brick and concrete plant at East 129th St. and East River. The estimated cost is $30,000. Hopkins & McEntee, 37 East 28th St., is Arch.

+New York, N. Y.—(Borough of Manhattan)—KATZ & SCHOENHOLTZ, 165 West 18th St., has been awarded the contract for the construction of a two-story, 60x100-ft. box factory at 81 Tompkins St., for George Etzel. Mitchell Bernstein, 131 East 23rd St., is Arch.

+Syracuse, N. Y.—(Official)—The contract for the construction of a seven-story, reinforced-concrete warehouse for the Syracuse Cold Storage Co. has been awarded to CHARLES D. WATSON, 1317 Spruce St., Philadelphia, Penn. Noted May 20.

West Sand Lake, N. Y.—Bids will soon be received by C. G. Ogden, Arch., Albany, N. Y., for the construction of a three-story, 66x110-ft. factory for the McLaren Knitting Co. The estimated cost is $60,000.

Paterson, N. J.—Thomas A. Kelly, 171 Marshall St., will build a two-story, 70x80-ft. storehouse at Clay and Straight St., to cost about $15,000. William T. Fanning, Colt Bldg., is Arch.

+Trenton, N. J.—The Mercer Automobile Co. has awarded the contract for the construction of a one-story, 60x400-ft. addition to its plant to the NEWTON A. K. BUGBEE CO.

Beaver Falls, Penn.—The Moltrup Steel Products Co. contemplates the construction of an addition to its plant, estimated to cost $50,000.

Ellwood City, Penn.—The Shelby Tube Co. contemplates the expenditure of a $1,000,000 for additions and improvements to its plant.

+New Castle, Penn.—The McCLINTIC MARSHALL CONSTRUCTION CO., Pittsburgh, has been awarded the contract for additions and improvements to the plant of the Standard Steel Car Co.

✚**Philadelphia, Penn.**—The contract for the construction of an eight-story, 60x120-ft., reinforced-concrete warehouse at Delaware Ave. and Pine St. for the Pennsylvania Warehousing & Safe Deposit Co. has been awarded to the TURNER CONCRETE STEEL CO. Noted Feb. 18.

Philadelphia, Penn.—A one-story, 100x150-ft. brick and reinforced-concrete addition will be constructed at the factory of Harrison Bros. & Co., 35th St. and Gray's Ferry Rd. Millard P. Osborne, Real Estate Trust Bldg., is Arch.

Philadelphia, Penn.—An ice plant with a daily manufacturing capacity of 200 tons will be constructed for the American Ice Co. at American and Cambria St.

✚**Philadelphia, Penn.**—(Official)—The contract for the construction of a four-story, 110x188-ft., reinforced-concrete, brick and terra cotta building for A. H. & F. H. Lippincott, Inc., 24th and Locust St., has been awarded to the TURNER CONCRETE STEEL CO., at about $85,000. Mahlon H. Dickinson, Empire Bldg., is Arch,. Noted June 3.

Philadelphia, Penn.—Bids have been received by Ballinger & Perrot, Arch., 1710 Arch St., for the construction of a $15,000 addition to the warehouse of Janney & Burrows, 315 North Third St.

Philadelphia, Penn.—Bids have been received by Sauer & Hahn, Arch., 1112 Chestnut St., for the construction of a four-story, 28x40-ft. addition to the warehouse of the David Berg Distilling Co., Delaware Ave. and Tasker St. The estimated cost is $25,000.

✚**Philadelphia, Penn.**—(Official)—WILLIAM STEELE & SONS CO., 1600 Arch St., has been awarded the contract for the construction of a three-story, 65x75-ft. garage at 21st St. and Brandywine St. for J. D. Darlington & Co., at about $20,000. Noted June 10 and 17.

Pittsburgh, Penn.—The United States Steel Corporation contemplates the construction of a $3,000,000 plant. Elbert H. Garg is Ch. of the Corp.

Baltimore, Md.—The National Yeast Co. will build a plant on Colgate Creek. A seven-acre site has been secured.

Baltimore, Md.—The Davison Chemical Co. will build additions to its plant at Hadkins Point, to cost between $100,000 and $150,000.

Girard, Ala.—The Public Utilities Co., Trenton, N. J., will build a $60,000 packing plant. James L. Glass is representative.

Kentwood, La.—The machine shop of the Kentwood & Eastern Ry. Co., which was destroyed on June 9, by fire, with a loss of $15,000, will be rebuilt at once. G. A. Keyes, is Gen. Mgr.

✚**Akron, Ohio**—The contract for the construction of a four-story factory for the Firestone Tire & Rubber Co., has been awarded to JAMES L. STUART, Illuminating Building, Cleveland, Ohio. The Osborn Engineering Co., 740 Engineers Bldg., Cleveland, Ohio, is Arch.

✚**Akron, Ohio**—The contract has been awarded to the HUNKIN-CONKEY CONSTRUCTION CO., 321 Cuyahoga Bldg., Cleveland, Ohio, for the construction of a three-story, 100x125-ft. addition to the factory of the Goodyear Tire & Rubber Co., East Market St.

Bucyrus, Ohio—The Sommer Motor Co. has received bids for the construction of a one-story, 100x135-ft. addition to its factory to cost $20,000. Harlan Jones, Market St., Galion, Ohio, is Arch.

✚**Cleveland, Ohio**—The Cleveland Welding & Mfg. Co., 2129 West 117th St., has awarded the contract to the HUNKIN-CONKEY CONSTRUCTION CO., 321 Cuyahoga Bldg., for the construction of a one-story, 155x178-ft. addition to its factory.

Cleveland, Ohio—The Grasselli Chemical Co., Cleveland, Ohio, will build a 70x80-ft. warehouse, and a 100x110-ft. factory, in addition to its plant on Independence Rd.

Columbus, Ohio—Plans have been completed for a five-story reinforced-concrete warehouse to be built by the Marietta Paint & Color Co., on East Chestnut St., to cost approximately $40,000.

Columbus, Ohio—Bids have been received by D. Reibel & Sons, Arch., for the construction of a two-story, reinforced-concrete building on North Fourth St. for the S. D. Budd Dairy Co., 1374 Wesley Ave. The estimated cost is $50,000. Noted Apr. 22.

Fostoria, Ohio—The Allen Motor Car Co. plans the construction of a one-story, 120x300-ft. addition to its factory to cost $30,000. Harlan Jones, Market St., Galion, Ohio, is Arch.

✚**Springfield, Ohio**—The contract for the construction of a cold-storage plant at Washington and Jefferson St., for the Bowlus-Hackett Fruit Co., has been awarded to FRANK H. SMITH, Dayton, Ohio. Estimated cost, $70,000.

✚**Indianapolis, Ind.**—The International Machine Tool Co. has awarded the contract for the construction of a two-story factory on 21st St. to the HALL-CURRY CONSTRUCTION CO. The estimated cost is $15,000.

Detroit, Mich.—(Official)—The Detroit Auto Dash Co. will build a 44x202-ft. addition to its plant to cost $25,000. Henry J. Wright, Milford, Mich., is Arch.

✚**Detroit, Mich.**—(Official)—A. A. ALBRECHT & CO., Penobscot Bldg., has been awarded the contract for the construction of a foundry for John B. Corlis, 34 Canfield Ave. W. Smith, Hinchman & Grylls, 710 Washington Arcade, is Arch. Noted June 17.

Jackson, Mich.—(Official)—The Jackson Cushion Spring Co. will build a 100x106-ft. factory to cost $25,000.

Chicago, Ill.—The Brennan Packing Co., 3922 Normal Ave., will build a two-story, brick addition to its plant to cost $25,000. J. E. Youngberg is Arch.

✚**Chicago, Ill.**—JACOB RODATZ, 209 South La Salle St., has been awarded the contract for the construction of a two-story, 110-248-ft. factory and warehouse for the Central Mfg. District. The estimated cost is $60,000. A. S. Alschuler, 28 East Jackson Blvd., is Arch.

Chicago, Ill.—A three-story, 64x130-ft. storage building will be constructed for D. Burkhartsmeier. William H. Pruyn, Jr., 122 South Michigan Ave., is Arch.

Chicago, Ill.—Bids have been received by S. H. Dunford, Arch., 10 South La Salle St., for the construction of a five-story, 58x80-ft. addition to the warehouse of Anderson Bros.' Express & Storage Co., 945 Belmont Ave.

Chicago, Ill.—George W. Linn & Son will build a two-story, 70x100-ft. warehouse to cost $45,000. R. S. Lindstrom, 538 South Dearborn St., is Arch.

✚**Carrollville, Wis.**—(Milwaukee post office)—The contract for the construction of a two-story, 205x225-ft., reinforced-concrete warehouse for the United States Glue Co., has been awarded to PAUL RIESEN & SONS CO. Herman J. Esser, Camp Bldg., is Arch.

✚**Clear Lake, Wis.**—The Clear Lake Creamery Co. has awarded the contract for the construction of its new dairying plant to G. W. RIDLER, Amery, Wis., at $11,276.

✚**Davenport, Iowa**—(Official)—The H. W. HORST CO., Rock Island, Ill., has been awarded the contract for the construction of a five-story, reinforced-concrete factory for the Crescent Macaoni & Cracker Co., at about $70,000. Clausen & Kruse is Arch. Noted May 6.

Des Moines, Iowa—The contract will be awarded about June 28 by Proudfoot, Bird & Rawson, Arch., for the construction of a 13-story newspaper publishing building for Gardner Cowles. The estimated cost is $250,000.

Mason City, Iowa—(Official)—We are advised that E. R. Gibson will build the $25,000 warehouse on First St. by day work. The estimated cost is $200,000. Noted June 10.

Duluth, Minn.—The Western Automobile Co. will build a two-story, 100x140-ft. salesroom and repair department. The estimated cost is $50,000. C. E. Nystrom is Arch.

Columbus, Neb.—Bids have been received for the construction of a two-story, 66x123-ft. garage for the Lincoln Highway Garage Association. The estimated cost is $25,000. Samuel Gass is Secy. Charles Wurdeman, 313½ West 13th St., is Arch.

✚**Omaha, Neb.**—The World-Herald Publishing Co. has awarded the contract for the construction of an eight-story, 66x132-ft. reinforced-concrete and brick building to the J. C. MARDIS CO., 750 Brandeis Theater Bldg. The estimated cost is $300,000. Thomas R. Kimball, 503 McCoyne Bldg., is Arch. Noted May 13.

✚**Kansas City, Mo.**—EDELMAN & FLEMING, 122 Midland Bldg., has been awarded the contract for the construction of a two-story, 50x130-ft. garage for Harmon Moore, 39th and Summit St. The estimated cost is $12,000. H. F. Brandenberger, 15 West Ninth St., is Arch.

St. Louis, Mo.—The National Oil Cloth Co., Jennings Station, contemplates the construction of a one-story, 163x247-ft. factory. Klipstein & Rathmann, Chemical Bldg., is Arch.

✚**St. Louis, Mo.**—The contract for the construction of a two-story warehouse at 173 Arsenal Ave., for the St. Louis Basket & Box Co., has been awarded to the FRUIN-COLNON CONTRACTING CO., at $30,000.

Pharr, Tex.—(Official)—We are advised that the Pharr Milling & Elevator Co. has organized its own construction department and will construct its plant by day work. Noted May 27.

Salt Lake City, Utah—A $100,000 factory will be constructed at South Fifth and West Fourth St. for the Purity Biscuit Co., V. A. Tracy, Pres.

Flagstaff, Ariz.—Bids have been received for the construction of a three-story, 75x130-ft. garage for Babbitt Bros. James O. Craig is Arch.

✚**Los Angeles, Calif.**—LEONARDT & PECK, Hellman Bldg., has been awarded the contract at $29,400, for the construction of a three-story, 40x140-ft., reinforced-concrete factory at Vincent and Merrick St. for the Coca Cola Co. E. A. Stuhrman is Arch.

✚**San Pedro, Calif.**—The contract for the construction of a concrete oil storage reservoir for the General Petroleum Co., has been awarded to LEONARDT & PECK, Hellman Bldg., Los Angeles, Calif. The estimated cost is $60,000.

Sherbrooke, Que.—The Canadian Box Mills will build a plant to cost $15,000.

FEDERAL GOVERNMENT WORK

✚**Post Office**—Concord, N. H.—The contract for the construction of the extension to the post office at Concord has been awarded to JAMES MILES & SON CO., Worcester, Mass., at $42,987. Noted Apr. 16.

Headstones—Boston, Mass.—Bids will be received until 1 p.m., July 16, by the Depot Quartermaster, for furnishing 14,000 headstones.

★**Wharf**—Woods Hole, Mass.—Bids were received June 12 by Col. John Millis, U. S. Engineer Office, for wharfs, sea wall and coal tipple as follows: Darling-Slade Construction Co., Newport, R. I., $39,709; T. A. Scott Co., Inc., New London, Conn., $29,482; William L. Miller & Co., Boston, $33,554; Lawler Bros., Charlestown, $36,973 (irregular); John R. Burke, Boston, $28,633 (irregular); George T. Rendle, East Boston, $37,218. Noted May 27.

Dredging—Block Island, R. I.—Bids were received June 16 by Col. John Millis, U. S. Engineer Office, Newport, for dredging at Block Island as follows: Eastern Dredging Co., East Boston, Mass., $0.30 per cu.yd.; John H. Corrish, Boston, Mass., $0.323; Charles H. Cole, Fall River, Mass., $0.1975; Bay State Dredging Co., Ltd., Boston, Mass., $0.42; Coastwise Dredging Co., Norfolk, Va., $0.24; John R. Burke, Boston, Mass., $0.3475; J. S. Packard Dredging Co., Providence, $0.2288; John A. Seely, New York, N. Y., $0.27; Bowers Southern Dredging Co., Galveston, Tex., $0.231; Maryland Dredging & Contracting Co., Baltimore, Md., $0.255.

★**Carpenter Shop**—New York, N. Y.—(Borough of Richmond)—Bids will be received until 2 p.m., July 9, by the Lighthouse Inspector, Tompkinsville, for constructing a reinforced-concrete carpenter shop at the General Lighthouse Depot.

Dredging—New York, N. Y.—Bids will be received until noon, July 15, at the U. S. Engineer, Office Whitehall Bldg., New York, for dredging in the Hackensack River, N. J., and in channel north of Shooters Island, N. Y.

★Coast Guard Station—Oswego, N. Y.—Bids were received June 15 for constructing a coast guard station: R. M. Barnett, Oswego, $10,750; S. E. Fourner, Oswego, $11,250; M. D. Bennett, Sidney, $12,117. Noted June 3.

★Riprap—Philadelphia, Penn.—Bids will be received until noon, July 8, at the U. S. Engineer Office, Philadelphia, for furnishing and placing riprap in the Delaware River at Artificial Island.

★Air-Compressor Plant—Pittsburgh, Penn.—Bids will be received until noon, June 30, at the U. S. Engineer Office, Pittsburgh, for furnishing and installing a water-power driven air-compressor plant at dam No. 10, Ohio River.

✚Fire Engine—Washington, D. C.—The contract has been awarded to the AMERICAN LA FRANCE FIRE ENGINE CO., Elmira, N. Y., at $10,500, by the Commissioners, for furnishing a gasoline motor-propelled pumping engine for the fire department.

✚Paving—Washington, D. C. — The contract has been awarded to the WARNER-QUINLAN ASPHALT PAVING CO., Syracuse, N. Y., by the Commissioners for paving.

✚★Sewer — Washington, D C. — The contract has been awarded to WARREN F. BRENIZER CO., Washington, at $10,633, by the Commissioners, for constructing sewers. Noted May 27.

Steamer—Washington, D. C.—Bids will be received until Aug. 10, by the Superintendent of Coast and Geodetic Survey, Dept. of Commerce, Washington, D. C., and by the Inspector of Coast and Geodetic Survey, Custom House, San Francisco, Calif., for constructing a 1000-ton steamer to be known as "Surveyor."

★Storehouse—Washington, D. C.—Bids will be received until noon, July 17, at the U. S. Engineer Office, 305 Southern Bldg., Washington, for constructing a brick store house in McMillan Park.

✚★Crushed Stone—Wilmington, N. C.—The contract has been awarded to the VIRGINIA SAND & GRAVEL CORPORATION, Norfolk, Va., at $39,260, for furnishing crushed stone and gravel. Noted Apr. 29 and June 3.

★Lock Gates—Wilmington, N. C.—Bids will be received until noon, July 19, at the U. S. Engineer Office, Wilmington, for furnishing steel lock gates.

Wharf—Charleston, S. C.—Bids will be received until noon, July 15, by the Light House Inspector, Charleston, for constructing a timber wharf.

✚Roofing Materials—Atlanta, Ga.—Contracts have been awarded to JOHN D. EMACK CO., Philadelphia, Penn., at $5795, for roofing slate and to KNOX & MAIER CO., Atlanta, at $5236, for other materials. Noted June 17.

Post Office—Quitman, Ga.—Bids will be received until 3 p.m., July 29, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for constructing complete the U. S. post office.

★Dredging—Jacksonville, Fla.—Bids will be received until noon, July 24, at the U. S. Engineer Office, Jacksonville, for dredging and rock removal in St. Johns River.

★Structural Metal—Vicksburg, Miss.—Bids were received June 15 by Maj. J. R. Slattery, U. S. Engineer Office, Vicksburg, for structural metal for the construction of lock and dam No. 3 on Ouachita River at Call Landing, La., as follows: American Bridge Co., Frick Bldg., Pittsburgh, Penn., $20,500; Charles Hegewald Co., New Albany, Ind., $21,399; Lawrence D. Weaning, care of Variety Iron & Steel Works Co., Cleveland, Ohio, $21,000; Steacy Schmidt Mfg. Co., York, Penn., $18,900; J. & J. B. Milholland Co., 714 Fifth Ave., Pittsburgh, Penn., $18,905; Independent Bridge Co., Beaver Ave., Pittsburgh, Penn., $17,718 (recommended for acceptance); Chicago Bridge & Iron Co., 105th St., Chicago, Ill., $19,967; Penn Bridge Co., Beaver Falls, Penn., $19,400; Louisville Bridge & Iron Co., 11th St., Louisville, Ky., $17,900. Noted May 27.

✚★Guard Gate—Louisville, Ky.—The contract has been awarded to the AMERICAN BRIDGE CO., Cincinnati, Ohio, at $14,948, for constructing one guard gate at Lock No. 41, Ohio River. Noted May 13.

★Post Office—Albion, Mich.—Bids will be received until 3 p.m., July 30, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D C., for constructing complete the U. S. post office.

★Excavation—Detroit, Mich.—The Great Lakes Dredge & Docks Co., was the only bidder at about $150,000, for excavation work at the Fourth Lock in the St. Mary's River. Noted June 3.

★Lumber—Detroit, Mich.—Bids will be received until noon, July 31, at the U. S. Engineer Office, Federal Bldg., Detroit, for furnishing and delivering 236,000 ft. b. m. of fir timber.

✚Building—Tomah, Wis.—The contract has been awarded to MILLER & LAMB, Tomah, at $9961, for constructing a brick building for employees. Noted June 17.

✚Water System—Rosebud, Mont.—The contract has been awarded to COBERTH HAINES & WHITE, Washington, D. C., at $6382, for constructing a water system in the Custer Battlefield National Cemetery. Noted May 20.

✚★Dike and Revetment—Waverly, Mo.—The contract has been awarded to MARSHALL RUST, Pilot Grove, Mo., for constructing the dike and revetment, for which bids were opened May 24. Noted Apr. 29.

✚Radio Towers—Point Isabel, Tex.—The contract has been awarded to the MIDLAND BRIDGE CO., 70 Grand Ave., Kansas City, Mo., at $5600, for constructing two steel towers at Point Isabel. Noted Apr. 29 and June 3.

Power Plant—Las Cruces, N. M.—C. E. Hogle, Electrical Engr. Dept., U. S., Reclamation Service, has made a survey of the possibilities of supplying electric power to a number of towns in eastern New Mexico from the proposed hydro-electric plant at the Elephant Butte dam, near Las Cruces.

Seven Building—San Diego, Calif.—Bids will be received until 11 a.m., July 24, by H. R. Stanford, Ch. of Bureau, Yards and Docks, Navy Dept., Washington, D. C., for constructing seven buildings at the Naval Radio Station, San Diego. Noted Apr. 8.

✚Lumber—Panama—The contract has been awarded to W. R. GRACE & CO., Seattle, Wash., for furnishing 1,350,000 ft. of lumber by the Panama Canal Commission for the construction of dwellings in the canal zone.

Miscellaneous Supplies—Panama—Bids will be received until 10.30 a.m., June 25, by Maj. F. C. Boggs, Gen. Pur. Agt., Panama Canal, Washington, D. C., for furnishing miscellaneous supplies.

Miscellaneous Supplies—Panama—Bids will be received until 10:30 a.m., July 1, by Maj. F. C. Boggs, Gen. Pur. Agt., Panama Canal, Washington, D. C., for furnishing miscellaneous supplies.

Dredging—Pearl Harbor, Hawaii—Bids will be received until 11 a.m., July 31, by H. R. Stanford, Ch. of Bureau, Yards and Docks, Navy Dept., Washington, D. C., for dredging 72,000 cu.yd. at the naval station.

MISCELLANEOUS

✚Dredging—Boston, Mass.—The contract for widening the channel at Cuttyhunk Harbor, Goswold, has been awarded by the State Harbor and Land Commissioners to JEREMIAH P. O'RIORDEN, City Sq., Charlestown, Mass., at 21c. per cu.yd. earth; $5 per cu.yd. rock. Other bids were: J. S. Packard Dredging Co., 0.313c.; $8; John H. Gerrish, 0.329c.; $6; John R. Burke, 0.3325c.; $10; Eastern Dredging Co., 36c.; $9.50.

✚Jetty—Boston, Mass.—The contract for constructing 256 lin.ft. of timber jetty at Bucks Creek, Chatham, has been awarded to WILLIAM L. MILLER CO., 171 Alford St., Boston, Mass., at $9.44 per lin.ft. Other bids were: George T. Rendle Co., $9.62; Lawler Bros., $9.75; Thomas Cavanagh Co., $11; W. S. Rendle, $11.40; Frank C. Taylor, $16; John R. Burke, $17.50.

Retaining Wall—Salem, Mass.—Bids will be received until June 25 by the Rebuilding Commission for constructing a retaining wall and culvert in South River. Edmund D. Longley is Chn. of Comn. George F. Ashton is City Engr.

★Barge Canal Work—Albany, N. Y.—Bids will be received by James Stewart Co., Inc., 30 Church St., New York, for the construction of approach wall to Lock No. 3, Mechanicsville, New York, under Barge Canal Contract No. 72A. Work will be let under subcontract.

★Subway—New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received by the Public Service Commission, 154 Nassau St. (Manhattan) until July 9 for track laying on the New Utrecht Ave. elevated line. Rails, ties, etc., are to be furnished by the city. This line runs from a connection with the Fourth Ave. subway at about 38th St., through open cut to New Utrecht Ave. and as an elevated railroad over New Utrecht Ave., Stillwell Ave. and 86th St. to Coney Island.

Subway—New York, N. Y.—(Borough of Brooklyn)—(Official)—The following are the bids received by the Public Service Commission for constructing a part of Route 29, Section 1, beginning at a point under Eastern Parkway, about 192 ft. west of the westerly building line of Nostrand Ave., curving thence southerly under Eastern Parkway and private property into Nostrand Ave. to a point about 220 ft. south of the southerly building line of Church Ave. The general plan of construction calls for a subsurface railroad having two tracks. The bidders were: Underpinning & Foundation Co., 290 Broadway, $2,187,286; Dock Contracting Co., $2,392,608; T. A. Gillespie, $2,534,532; E. E. Smith Contracting Co., $2,633,765; Oscar Daniels, $2,944,287; A. McMullen, $2,904,029; Degnon Contracting Co., $2,765,887; J. C. Creem, $3,331,566; Newman & Carey, $2,073,303; Frawley Kaufman Contracting Co., $2,834,736; D. Donegan, $2,342,401; Charles Cooper, $2,539,048; McArthur Bros. Co., $2,512,485; Rodgers & Hagerty, Inc., $2,396,309.

✚Pier—New York, N. Y.—(Borough of Brooklyn)—The contract has been awarded for building a new pier at the foot of 29th St. to HENRY STEERS, 17 Battery Pl., at $116,148. Noted May 6, June 3 and 17.

✚Pavilion—New York, N. Y.—(Borough of Brooklyn)—(Official)—The contract has been awarded by the Board of Health for the construction of a pavilion at the Kingston Ave. Hospital to T. J. FEARON, 32 Broadway, at $66,972. Noted June 17.

Pier—New York, N. Y.—(Borough of Brooklyn)—(Official)—The following are the bids received by R. A. C. Smith, Comr., Docks and Ferries, for building the pier at the foot of East 30th St.: Snare & Triest, Class 1, $186,700; Class 2, $15,750; total, $202,450; McHarg-Barton, $186,598; $15,750; $202,348; Foundation Co., $209,250; $15,750; $225,000; Henry Steers Inc., $187,000; $15,120; $202,120; Stillman, Delahanty & Ferris, $183,231; $14,726; $197,957; Phoenix Construction Co., $198,897; $15,750; $214,647; W. B. Seaver, Inc., Grand Central Terminal, $180,513; $15,750; $196,263; New York Submarine Co., $183,625; $15,750; $199,375. Noted June 10.

Field House—New York, N. Y.—(Borough of Brooklyn)—(Official)—Bids will be received by George W. Wingate, Room 527, Municipal Bldg., Manhattan, until 10:30 a.m., June 29, for the general construction, including heating and water-works, of a field house at the Betsy Head Memorial playground, Brownsville, Brooklyn.

Fire Hose—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by Robert Adamson, Fire Comr., Municipal Bldg., until 10:30 a.m., June 28, for 20,000 ft. of 2½-in., and 10,000 ft. of 1½-in. cotton rubber-lined fire hose. Noted June 10.

Motor Fire Apparatus—New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received by Robert Adamson, Fire Comr., Municipal Bldg., until 10:30 a.m., June 28, for furnishing and applying 26 two-wheel gasoline-driven tractors, 16 for fire engines and 10 for hook and ladder trucks. Noted June 10 and 17.

Track Materials—New York, N. Y.—(Borough of Manhattan)—(Official)—The following are the more important bids received by the Public Service Commission, 154 Nassau St., Borough of Manhattan, for furnishing the following supply of track materials: For open hearth rails, including main rails and guard rails, Bethlehem Steel Products Co. $78,949, Pennsylvania Steel Co., $78,949, Lackawanna Steel Co., $78,949; for rolled manganese rails, including standard and short lengths also the drilling or punching of bond and separate holes, the Pennsylvania Steel Co. $16,905; Manganese Steel Rail Co., $16,337; for track rail splice bars under four different classes, Rail Joint Co., $11,474; for anti-creepers, including those for guarded rails and those for unguarded rails, the Creepcheck Co., $2571; Track Specialties Co., $2154; for cut track spikes, Lackawanna Steel Co., $3326, American Iron & Steel Mfg. Co., $3985; for furnishing ties and timber, J. H. Burton & Co., $134,804, Alfred R. Sax, $138,035; for furnishing bolts and nuts, American Iron & Steel Mfg. Co., $20,675; American Iron & Steel Mfg. Co., $15,693 (alternate), $15,258; for malleable iron castings, under which classification are included guard rail braces, main rail braces and washers: American Malleable Co., $6230; J. E. Coonon, $5942; Eastern Malleable Iron Co., $6208; Foran Foundry & Mfg. Co., $5251; for tie plates under Type A, Lackawanna Steel Co., $14,190; for tie plates under Classification D, Ramapo Iron Works, $1600, and for tie plates under classifications W and X, Ramapo Iron Works, $164; for hand rails, Vulcan Rail & Construction Co., $15,606; for special work, the Ramapo Iron Works, $19,740; Pennsylvania Steel Co., $22,864. Noted May 27.

Coal-Storage System—New York, N. Y.—(Borough of Richmond)—(Official)—The Richmond Light & R.R. Co., Terminal Bldg., St. George, contemplates the erection of a concrete coal-storage system at its Livingston plant. W. H. Rudisill is Ch. Engr.

Fire Station—Edgewater, N. J.—Bids will be received until July 6 by the Town Council for constructing the proposed fire station. Noted Mar. 25 and Feb. 11.

Shipyard—Elizabethport, N. J.—The Samuel L. Moore & Sons Corporation, a subsidiary of the Bethlehem Steel Corporation, will construct a shipyard for the repair and construction of ships, to cost about $1,000,000.

Park Improvements—Jersey City, N. J.—The Board of Freeholders will issue bonds for $300,000 for improving the parks.

Elimination of Grade Crossing—Ridgewood, N. J.—The Erie R.R. Co. will elevate its tracks at Goodwin and Franklin Ave. The cost to the railroad is estimated at $80,000.

Dredging—Trenton, N. J.—The following are the bids received by the Inland Waterway Commission for dredging the first section of the channel connecting the head of Barnegat Bay with the Manasquan River and the work at Bayhead; Rickards Dredging Co., Philadelphia, Penn., 18c. per cu.yd.; Hill Dredging Co., Atlantic City, N. J., 19c.; Bay Dredging & Contracting Co., New York, N. Y., 22c.

✚Dam—Coatesville, Penn.—The contract for the construction of a reinforced-concrete dam at Coatesville has been awarded to the BOLTON G. COON CONSTRUCTION CO., Wilkes-Barre, Penn., at about $85,000.

Fire Alarm System—Glenlyon. Penn.—Bids will be received by W. O. Davis, Secy. until 7 p.m., July 2, for installing a fire alarm system.

Pier—Philadelphia, Penn.—According to press reports, bids will soon be called by the Department of Wharves, Docks and Ferries for the construction of the first of the 10 municipal piers to be erected in the southern section of the city and known as the Moyamensing piers. This pier will be the largest yet built by the city and when completed will cost about $1,500,000. The whole group, with the other facilities necessarily appurtenant to the piers, will involve an expenditure of almost $25,000.000.

Dredging—Philadelphia, Penn.—Bids will be received until July 12 by John Meigs, Dir., Dept., Wharves, Docks and Ferries, Bourse Bldg., for dredging at Moyamensing Piers, Delaware River.

★Plaza—Philadelphia, Penn.—Bids will be received by the Highway Bureau until noon, July 2, for constructing the South Broad St. plaza. There is $118,000 available for the commencement of the work. Olmstead Bros., Boston, Mass., prepared the plans.

✚Mausoleum—Philadelphia, Penn.—The contract for erecting a memorial mausoleum to Bartholomew Shea at the Holy Cross Cemetery has been awarded by the Commonwealth Title, Insurance & Trust Co., to the PRESBREY COYKENDALL CO., 198 Broadway, New York, N. Y., at $74,050.

Pier—Baltimore, Md.—According to press reports, the Pennsylvania R.R. will construct a coal pier at Canton, and will install equipment for the handling of coal. The estimated cost is $1,000,000.

Traction Engine—Atlanta, Ga.—Bids will soon be received by C. M. Holland, County Pur. Agt., for furnishing a gasoline or oil traction engine.

Wharf and Warehouse—Augusta, Ga.—According to press reports, a contract for the construction of a municipal wharf and warehouse will soon be awarded. Nisbet Wingfield is Ch. Engr., River and Canal Comn.

★Levee—Vicksburg, Miss.—(Official)—Bids will be received until 11 a.m., July 12, at the Office of Third Mississippi River District, P. O. Box 404, for constructing about 1,145,000 cu.yd. of levee work.

✚Levee Work—Vicksburg, Miss.—The contract for constructing about 660,000 cu.yd. of levee enlargement has been awarded by the Third Mississippi River District to WALTER H. DENNISON, 62 South Front St., Memphis, Tenn., at $94,842. Noted May 27.

Drainage—Wickliffe, Ky.—It is reported that plans have been completed for draining Little Humphries Creek land in Ballard County. The estimated cost is $35,000.

Ditches—Sidney, Ohio—The Commissioners of Shelby County have decided to hold an election July 6 for the purpose of voting on the issuance of $24,200 in bonds for the construction of ditches. George P. Staley is County Audr.

Drainage—Hillsdale, Mich.—J. W. Watkins, Drainage Comr., Hillsdale County, will soon call for bids for the construction of a drain about three miles long.

Drainage—Champaign, Ill.—(Official)—Bids will be received by the Commissioners of Sangamon and Drummer Drainage District until 10 a.m., July 1, for the construction of 12,928 ft. of covered drains.

Cranes—Chicago, Ill.—Bids will be received by L. E. McGann, Comr. of Pub. Wks., until June 26 for furnishing six jib cranes at the municipal plant, West 31st St. and Sacramento Ave,

Levee—East St. Louis, Ill.—Bids will be received by the Board of Trustees, East Side Levee and Sanitary Dist., Sexton Bldg., until 2 p.m., July 12, for the construction of an earth levee. The work requires 800,000 cu.yd. of earth embankment; 230 cu.yd. of reinforced concrete; two hand gates and two automatic flood gates. G. L. Barton is Pres. of Bd.

Ditch and Tile Drainage—Woodstock, Ill.—Plans for the Coon Creek Drainage District, in Boone and McHenry counties, were filed at Woodstock June 14. The total cost is estimated at $78,830, and the included area is nearly 7000 acres. The system consists of over 16 miles of tile work and six miles of open ditches. A hearing will be held in July. Arthur L. Webster, Wheaton, Ill., is the Engr., and William Biester, Belvidere, Ill. is Atty.

✚Docks—Kenosha, Wis.—Press reports state that B. C. Brennan, City Engr., is preparing plans for the construction of docks at the foot of Washington St., on Washington Island.

Drainage—Atlantic, Iowa—J. H. Mayne, Engr., 235 Meriam Blk., Council Bluffs, Iowa, has been engaged to prepare plans for about three miles of drainage in Atlantic.

✚Ditch—Elbow Lake, Minn.—The contract for constructing Consolidated Judicial Ditch No. 2 has been awarded to JOHN C. HAGGART, at $13,980. C. M. Wilson, is County Audr.

✚Ditch—Long Prairie, Minn.—The contract for constructing Ditch No. 25, a distance of about 25 miles, including laterals, has been awarded to WILLIAM TABERY, Bertha, Minn.

Ditch—Morris, Minn.—Bids will be received by C. R. Wooltham, County Audr., until June 29 for constructing Ditch No. 16. The work requires about 1000 cu.yd. of excavation and laying 35,000 ft. of 6-in. to 24-in. tile.

Ditch—Waterville, Minn.—The County Commissioners will issue $10,000 in bonds for constructing Ditch No. 40.

✚Dredge—Kansas City, Kan.—The contract for constructing one hydraulic dredge has been awarded by the Kaw Valley Drainage Board, to the MORRIS MACHINE WORKS, Baldwinsville, N. Y. Noted June 3.

Dock—St. Louis, Mo.—According to press reports, plans are almost complete for the construction of municipal dock 2000 ft. long and 160 ft. wide near the waterworks plant. E. R. Kinsey is Pres., Bd. of Pub. Ser.

Dam and Dredging—Beaumont, Tex.—Bids will be received by the Beaumont Navigation District, until 10 a.m., June 28, for the construction of a 120-ft. timber dam across Salt Bayou and the construction of 6000 ft. of canal, requiring 22,000 cu.yd. of dredging. James F. Weed, Beaumont, is Engr.

Drainage—Galveston, Tex.—According to press reports the City Commission plans to hold an election soon for the purpose of voting on a $200,000 bond issue, the proceeds of which will be used in constructing an underground drainage system.

Drainage—Victoria, Tex.—The land owners of the drainage district which was recently created in Victoria County held an election June 23 to vote on the proposition of issuing $190,500 bonds for the construction of a complete system of drainage for the district. Noted Feb. 11.

Cement—Seattle, Wash.—No bids were received June 7 by the County Commissioners for furnishing about 200,000 bbl. of portland cement. Noted May 27.

Fire Apparatus—Auburn, Calif.—The City Council plans to issue $25,000 in bonds for the purchase of three fire trucks.

✚Oil Storage Reservoir—Bakersfield, Calif.—The contract for the construction of a 1,000,000-gal. reinforced-concrete oil storage reservoir near Bakersfield for the Associated Oil Co. has been awarded to the VANSANT-HOUGHTON CO., Hooker-Lent Bldg., San Francisco.

✚Pier—Long Beach, Calif.—The contract for the construction of the Belmont Pier has been awarded by the Board of Public Works to S. M. KERNS, 625 West Ocean Ave., Long Beach. The construction will be of reinforced concrete. John Schulz, Wright & Callender Bldg., Los Angeles, is Engr. Noted May 27.

Mausoleum—Monrovia, Calif.—The Monrovia Mausoleum Co. plans to build a mausoleum adjoining Live Oak Cemetery, to cost $50,000. W. L. Hodges, American National Bank, Monrovia, is interested.

Piles—San Francisco, Calif.—Pope & Talbot, at $15,605, submitted the lowest bid to the State Harbor Commission for furnishing creosoted piles.

Repairs to Wharf—Levis, Que.—The repair of Ferry's Wharf, estimated to cost $10,000 has been recommended by Camille Lessard, Municipal Engr.

BUILDINGS

Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"

Fairfield, Maine—Bids will soon be received for the construction of a ten-story brick administration building for the Goodwill Home Association. The estimated cost is $60,000. Edgar A. Josselyn, 3 West 29th St., New York, N. Y., is Arch.

✚Skowhegan, Maine—The town of Skowhegan has awarded the contract for the construction of a three-story high school to L. E. BRADSTREET & SON, Hallowell, Maine. The estimated cost is $50,000. William Hart Taylor, 50 Bromfield St., Boston, Mass., is Arch.

Brandon, Vt.—At the annual meting of the School Board it was decided to expend $50,000 for the construction of a high school building. W. H. Wright is a Member of the Bldg. Com.

Boston, Mass.—Jacob Shapiro will build a $100,000 theater at 36 Bennington St., South Boston. Fred A. Norcross, 46 Cornhill, is Arch.

Boston, Mass.—(Official)—Bids will soon be received by A. B. Beal, 43 Tremont St., for the construction of two brick and steel apartment houses on Audubon Rd., to cost $120,000. Dykeman & Murray, 15 Exchange St., is Arch . Noted June 10.

Brighton, Mass.—St. Anthony's Church will build a two-story school, estimated to cost $75,000. E. T. P. Graham, 20 Beacon St., Boston, Mass., is Arch.

Cambridge, Mass.—St. Paul's Church will build an $85,000 school. Edward T. Graham, 20 Beacon St., Boston, Mass., is Arch.

Danvers, Mass.—The town of Danvers will build a three-story school, to cost $150,000. Daniel N. Crowley, 81 Washington St., Salem, Mass., is Chn. of the School Com.

Dedham, Mass.—Bids are being received by J. G. Hutchinson, Arch., 101 Tremont St., Boston, Mass., for the construction of a two-story, 45x90-ft. temple, to cost about $40,000.

Lexington, Mass.—At special town meeting an appropriation of $60,000 was made for a brick schoolhouse at North Lexington.

Providence, R. I.—W. F. Fontaine, Arch., Woonsocket, R. I., is receiving bids for the construction af a 66x151-ft. brick and stone church for St. Charles Borromeo Parish.

Providence, R. I.—The Board of Aldermen passed an order appropriating $175,000 for the construction of a grammar school on Charles St. Joseph Gainer, Mayor, is Chn. of Com. on Contracts and Supplies.

Warren, R. I.—Burritt S. D. Martin, arch., 86 Weybosset St., Providence, R. I., is preparing plans for a $50,000 school. Noted Mar. 25.

Woonsocket, R. I.—Only one bid was received for the construction of a $150,000 high school. It was rejected. New bids will soon be received.

✚Windsor, Conn.—The contract for the construction of a three-story, 28x101-ft. brick building at Loomis Institute has been awarded to the CENTRAL BUILDING CO., Worcester, Mass. The estimated cost is $250,000. Noted Apr. 15.

Buffalo, N. Y.—Plans are being prepared by Howard L. Beck, City Arch., Municipal Bldg., for the construction of a reinforced-concrete and brick library and social building, including a gymnasium, at Grant and Amherst St. The estimated cost is $45,000. Frank T. Reynolds is Deputy Bldg. Comr.

Buffalo, N. Y.—Colson & Hudson, Arch., 35 Dun Bldg., is preparing preliminary plans for the construction of an apartment house at Delaware Ave. and Bryant St. for Edward James Smith. The estimated cost is $300,000.

Hyde Park, N. Y.—Plans are being considered for the construction of a monastery on the Albany Post Rd. for the Dominican Fathers. The estimated cost is $250,000.

Little Falls, N. Y.—Plans are being prepared by W. L. Stoddart, 9 East 40th St., New York, for the construction of a bank and office building at South Ann and Albany St. for the Herkimer County National Bank. The estimated cost is $65,000.

Little Falls, N. Y.—Bids will be received about July 1 for the construction of a four-story city hall for Little Falls. The estimated cost is $100,000. Frank Shall is Mayor. Noted May 27.

Lockport, N. Y.—Bids will be received until June 27 by Austin Dryer, Chn. of Bldg. Com., for the construction of a building to be used as a jail and office for Niagara County. Estimated cost, $90,000. C. R. Phelps, Gluck Bldg., Niagara Falls, is Arch.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by Gustave E. Steinback, Arch., 15 East 40th St., New York, for the construction of a group of five school buildings with a 300-ft. central tower at Atlantic and Washington Ave. for the College of Immaculate Conception. The estimated cost is $500,000. Rev. George W. Munderlein is Director.

New York, N. Y.—(Borough of Brooklyn)—Preliminary plans have been approved by C. B. J. Snyder, Supt., 500 Park Ave., New York, for the construction of a four-story school at Wilson St. and Bedford Ave. The estimated cost is $100,000.

New York, N. Y.—(Borough of Manhattan)—(Official)—Bids will be received until 2 p.m., June 28, by Marcus M. Marks, Borough Pres., Municipal Bldg., for constructing additions to the building at 146 Grand St.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared and bids will soon be received by M. Serracino, Arch., 1170 Broadway, for the construction of a two-story, 64x100-ft. brick church at 309 East 33d St. for Sacred Heart Church. Estimated cost, $50,000.

Orchard Park, N. Y.—Bids will soon be received by Robert North, Arch., Prudential Bldg., Buffalo, for the construction of a three-story school. The estimated cost is $50,000. M. Strebel is Pres. of Bd. of Education. Noted May 13.

Rochester, N. Y.—Lewis F. Pilcher, State Arch., Capitol, Albany, is preparing plans for the construction of an armory with a stable on Culver Rd. for the Armory Commission of the State of New York. The estimated cost is $100,000. Walker, Livingston & Brackett is Assoc. Arch. Noted Mar. 11.

Rochester, N. Y.—L. L. Blaisdell plans to construct a five-story, 55x150-ft. fireproof hotel on Elm St. Rees & Ade is Arch.

Rochester, N. Y.—Plans are being prepared by Claude Bragdon, Arch., Cutler Bldg., for the construction of a two-story Y. M. C. A. building. The estimated cost is $50,000. James G. Cutler, Cutler Bldg., is Chn. of Bldg. Com. Bids will be received in August.

Syracuse, N. Y.—Plans are being prepared and bids will soon be received for the construction of a 1½-story, 55x135-ft. brick and stone church on Onondaga St. for the Central Church of Christ. The estimated cost is $75,000. A. F. Anderson, 3 East Onondaga St., is Pastor.

Syracuse, N. Y.—The Vocational High School Commission has rejected all bids received for the construction of a $450,000 vocational high school. Plans have been revised and new bids will soon be received. Noted May 27 and June 17.

✚Utica, N. Y.—The contract for the construction of a building for the Homeopathic Hospital has been awarded to R. G. LLOYD CO. Estimated cost, $100,000. Agne Rushmer & Jennison, Arcade Bldg., is Arch., and E. C. Field is Chn.

White Plains, N. Y.—Bids will be received about July 15 for the construction of the superstructure of a six-story, 100x182-ft. brick courthouse for Westchester County. The estimated cost is $800,000. A. W. Lawrence, Bronxville, is Member of the Bldg. Com., and Elwyn E. Seelye, 101 Park Ave., New York, is Consult. Engr. Noted Apr. 22.

✚Yonkers, N. Y.—The general contract for the construction of a two-story brick addition to School No. 19 has been awarded to LYNCH & LARKEN, 195 Riverside Ave. The estimated cost is $65,000. G. Howard Chamberlain, 18 Getty Sq., is Arch.

Yonkers, N. Y.—Plans are being prepared by C. Aubrey Jackson, Arch., 101 Park Ave., New York, for the construction of a four-story building at Guion St. and South Broadway for the Masonic Guild, F and A. M. Estimated cost, $70,000. Beersman & Vollmer and Evarts Tracy, 244 Fifth Ave., New York, are Assoc. Archs. Noted Oct. 15.

Bayonne, N. J.—The Board of Education plans to construct a school to replace Public School No. 5. Estimated cost, $146,000. Aaron A. Melnicker is Pres. of Bd.

Englewood, N. J.—(Official)—Bids will be received about Aug. 1 for the construction of a high school. The estimated cost is $150,000. Ernest Sibley, Palisade, and J. J. Ferry, Dean St., Englewood, are Archs. Noted Apr. 15 and June 10.

Glen Ridge, N. J.—Wallis & Goodwillie, Arch., 56 West 45th St., New York, have prepared plans for the construction of three-story, 50x100-ft. brick and stone borough hall for the Borough of Glen Ridge. The estimated cost is $75,000.

Hoboken, N. J.—Plans are being prepared by Ludlow & Peabody, Arch., 101 Park Ave., New York, for the construction of a group of buildings for Stevens Institute.

Newark, N. J.—Plans are being prepared by E. F. Guilbert, Arch., City Hall, for the construction of a five-story building for the Fawcett Drawing & Girls' Industrial School. The estimated cost is $187,000. Noted Dec. 3.

Newark, N. J.—The Board of Education contemplates the construction of a school at Washington and Linden St. The estimated cost is $300,000.

Roselle Park, N. J.—(Elizabeth post office)—D. C. Newman Collins, 29 Broadway, New York, is preparing plans for the construction of a three-story high school. The estimated cost is $65,000. W. A. Bembridge is Pres., Bd. of Education.

Toms River, N. J.—The Board of Chosen Freeholders of Ocean County plans to construct additions to the courthouse at Toms River. Estimated cost, $40,000.

Trenton, N. J.—Plans have been prepared for the construction of a fireproof hotel, for Benedict C. Kuser, to replace the Trenton House. The estimated cost is $500,000.

Gettysburg, Penn.—The Trustees of the Pennsylvania College plan to construct a building for the preparatory department. Estimated cost, $50,000. William Anthony Granville is Pres.

Allentown, Penn.—Preliminary plans are being prepared by Louis E. Jallade, Arch., 37 Liberty St., New York, for the construction of a six-story brick building for the Y. M. C. A. The estimated cost is $100,000. Noted Apr. 8.

✚Harrisburg, Penn.—The general contract for the construction of a 2½-story dormitory for Harrisburg Academy has been awarded to AUGUST WILDMAN, Harrisburg. The estimated cost is $40,000. Zantzinger, Borie & Medary, 139 South 15th St., Philadelphia, is Arch.

Harrisburg, Penn.—Bids will be received about June 26 by D. D. Hummelbaugh, Chn., Bd. of Education, 123 Chestnut St., for the construction of a two-story school. Estimated cost, $95,000. C. Howard Lloyd, Telegraph Bldg., is Arch. Noted Apr. 29.

✚Marshalsea, Penn.—(Bridgeville post office)—The contract for the construction of an asylum for men at the city poor farm has been awarded to THOMAS REILLY, 5872 Ellsworth St., Pittsburgh, at $251,900. J. McKelvey is Dir. of Dept. of Charities. Noted Mar. 25.

Muncy, Penn.—Bids will be received until noon, June 30, by Frank Smith, Secy. of Comn., Harrisburg, for the construction of four cottages and an administration building for the industrial home at Muncy. Horace Trumbauer, Land Title Bldg., Philadelphia, is Arch.

Natrona, Penn.—Bids will soon be received by P. M. Kennedy, Natrona, for the construction of a two-story school for Harrison Township. The estimated cost is $50,000. W. G. Eckles, New Castle, is Arch. Contracts will be awarded about Aug. 1. Noted June 17.

✚New Castle, Penn.—The Board of Education has awarded the general contract for the construction of a school in the Seventh Ward to W. H. CHAMBERS & SON, New Castle, at $65,242. Noted Mar. 4.

Parkesburg, Penn.—Bids will soon be received by the Board of Education for the construction of a two-story school. The estimated cost is $50,000. Clyde S. Adams, 1509 Arch St., Philadelphia, is Arch.

✚Philadelphia, Penn.—MURPHY & CO., 263 South 10th St., Philadelphia, has been awarded the contract for the construction of a parochial school for St. Catherine's Church. The estimated cost is $50,000. Ballinger & Perrott, 1701 Arch St., is Arch. and Engr.

✚Philadelphia, Penn.—The contract for the construction of new wings to the John Hay School at Wheaton and Marshall St., has been awarded to McCLOSKEY & BAHLES, Hale Bldg., Philadelphia, at $81,825. Noted June 17.

Philadelphia, Penn.—Plans are being prepared by J. Horace Cook, Supt. of School Bldgs., for the construction of an elementary school at 65th Ave. and Lime Kiln Pike, East Germantown. The estimated cost is $400,000.

Philadelphia, Penn.—Samuel J. Henderson has purchased a site at Ninth and Sansom St. upon which to construct an eight- or 10-story building.

Philadelphia, Penn.—Bids will soon be received by Clinton & Russell, Arch., 32 Nassau St., New York, N. Y., for the construction of a five-story, 130x160-ft. apartment house on 41st St. and Baltimore Ave. The estimated cost is $200,000. Noted Jan. 28.

✚Pittsburgh, Penn.—The contract for the construction of a six-story club building at Seventh St. and Duquesne Way for the B. P. O. E. Lodge No. 11 has been awarded to ROSE & FISHER, Dickinson Ave., Ben Avon, Allegheny post office. Noted Apr. 1.

Pittsburgh, Penn.—John T. Comes, Arch., Renshaw Bldg., is preparing plans for the construction of a two-story church for St. Agnes Parish. The estimated cost is $80,000.

✚Pittsburgh, Penn.—The general contract for the construction of the Frick Arcade Bldg., at Fifth Ave., Grant St., Oliver Ave. and Cherry Way, for Henry Clay Frick has been awarded to the GEORGE A. FULLER CONSTRUCTION CO., 111 Broadway, New York, N. Y. The entire cost is estimated at $2,500,000. Noted Apr. 8 and May 13.

Renovo, Penn.—Bids will be received until July 1 by the Board of Education of the Renovo School District for the construction of a high school. Woodnutt & Schmohl, 150 West Fourth St., Williamsport, is Arch.

Sayre, Penn.—Gibbs & Waltz, Arch., Ithaca, N. Y., is preparing plans for the construction of a two-story, 36x135-ft. addition to the Robert Packer Hospital at Sayre. The estimated cost is $50,000.

South Bethlehem, Penn.—The Societies of the Church of the Holy Ghost will construct a church and orphanage. The estimated cost is $50,000.

✚South Bethlehem, Penn.—The contract for the construction of a three-story brick high school has been awarded to ROBERT S. RATHBUN, Allentown, at $131,516. Noted Mar. 18 and May 6.

Wilmington, Del.—Bids will be received about June 25 by Hoffman & Co., Arch., Finance Bldg., Philadelphia, Penn., for the construction of a three-story theater for R. Topkis & Sons, Wilmington. The estimated cost is $125,000. Noted June 10.

Baltimore, Md.—Isaac E. Emerson, plans to construct a 10-story apartment house on Eutaw Pl. near Druid Hill Park.

Washington, D. C.—(Official)—Plans are being prepared by Milburn, Heister & Co., Arch., Union Savings Bank Bldg., for the construction of a nine-story, 120x196-ft. brick building on Pennsylvania Ave. for the Federal City Construction Co. The building will be occupied by the Southern Railway Co. Estimated cost, $750,000.

✚Washington, D. C.—W. A. KIMMEL has been awarded the contract for the construction of a Masonic Temple at Tenth and U St., N. W. The estimated cost is $185,000. H. T. Haller is Arch.

✚Washington, D. C.—The general contract for the construction of a 1½-story, 51x118-ft. church for St. Andrew's Congregation has been awarded to W. E. MOONEY, Evans Bldg., Washington. The estimated cost is $60,000.

Roanoke, Va.—Bids will be received about June 25 by H. M. Miller, Arch., for the construction of a one-story, 100x 200-ft. auditorium for the city. Estimated cost, $40,000.

Beckley, W. Va.—Bids will be received about July 1 by A. F. Wysong, Arch., Princeton, W. Va., for the construction of a four-story hotel for the Beckley Hotel Co. The estimated cost is $40,000.

Clarksburg, W. Va.—S. M. Mason is having plans prepared for the construction of a four-story, 40x75-ft. brick hospital. The estimated cost is $75,000.

Durham, N. C.—Plans are being prepared by Milburn & Heister, Arch., Union Savings Bank Bldg., Washington, D. C., for the construction of a two-story school. The estimated cost si $60,000.

Albany, Ga.—The general contract will be awarded about July 1 by A. Ten Eyck Brown, Arch., 607 Forsyth Bldg., Atlanta, for the construction of a municipal auditorium. Estimated cost, $45,000.

Palatka, Fla.—Edwards & Saywood, Arch., 633 Candler Bldg., Atlanta, Ga., is preparing plans for the construction of a five-story Masonic Temple. The estimated cost is $50,000.

Selma, Ala.—The business men plan to construct a ten-story, 30x100-ft. office building on Broad St. The estimated cost is $75,000. H. Stewart Gibbs, Atlanta, Ga., is interested.

New Orleans, La.—Plans have been prepared by Odenwals & Owens, Arch., for the construction of a reinforced-concrete clubhouse at Spanish Fort Park for Willis J. Roussel, New Orleans. The estimated cost is $100,000.

Memphis, Tenn.—Plans are being prepared by Victor Dunkerley and John Gaisford, Archs, for the construction of an addition to the Goodwyn Institute. The estimated cost is $125,000.

Covington, Ky.—An election will be held in November to vote on the question of issuing $150,000 in bonds, the proceeds of which will be used for the construction of a high school. Noted Dec. 3.

Louisville, Ky.—Plans are being prepared by Joseph & Joseph, Arch., for the construction of a brick and steel building for the Western Union Telegraph Co. The estimated cost is $50,000. Charles Smith is Louisville Mgr.

Louisville, Ky.—Bids will be received about July 15 by D. X. Murphy & Bro., for the construction of an 11-story addition to the Tyler Hotel. The estimated cost is $200,000. Noted Dec. 17.

Akron, Ohio—The Building Committee of the local Order of Elks will award contracts about June 28 for the construction of a lodge building. Estimated cost, $75,000. G. F. Burkhart, is Chn. of Bldg. Com.

Canton, Ohio—The First Congregational Church plans to construct a church on Tuscarawas St., W. Estimated cost, $50,000. C. W. Recard, is Pastor.

Cincinnati, Ohio—John W. Murphy, Pres., of the Academy of Medicine, will select a commission to arrange for the construction of a building on Seventh, Eighth or Ninth St. The estimated cost is $250,000.

Cincinnati, Ohio—Bids will soon be received by Garber & Woodward, Arch., 2803 Union Central Bldg., for the construction of a one-story, 75x75-ft. building for the New Thought Temple. Estimated cost, $75,000. William E. Hutton, 2508 Melrose Ave., is Chn. Bldg. Com. Noted May 27.

✚Cleveland, Ohio—The general contract for the construction of a two-story market house at Euclid Ave. and East 46th St. has been awarded to the F. B. MARKS CONSTRUCTION CO. The estimated cost is $200,000. Noted May 13.

Cleveland, Ohio—Plans have been prepared by Nicola Petti, Arch., 709 Williamson Bldg., for the construction of a motion-picture theater, bank and publishing building at East 14th and Central Ave. for O. G. Melaragno and Ferdinando Melaragno. The estimated cost is $60,000. Noted Mar. 25.

Cleveland, Ohio—The Bell Telephone Co., Telephone Bldg., plans the construction of a telephone exchange building. Estimated cost, $300,000. Allard Smith is Gen. Mgr.

Cleveland, Ohio—Contracts will be awarded about July 10 by Franz C. Warner, Arch., Hippodrome Bldg., for the construction of a four-story, 100x130-ft. building for the Dental Department at the Western Reserve University. The estimated cost is $100,000. Noted May 13.

✚Cleveland, Ohio—The contract for the construction of a two-story school at Superior Ave. and East 41st St., for the Immaculate Conception Church, has been awarded to C. A. CARSON CO., 6523 Euclid Ave. The estimated cost is $40,000. H. A. Walsh, 255 Lennox Bldg., is Arch. Noted May 6.

Cleveland, Ohio—William Hirsch, Arch., 1302 Swetland Bldg., is preparing plans for the construction of three buildings for the Ohio State Telephone Co. The estimated cost is $150,000. Noted Mar. 18.

Cleveland, Ohio—Bids will soon be received by Edwin J. Schneider, Arch., 606 Cuyahoga Bldg., for the construction of a three-story auditorium and gymnasium at 1939 West 54th St. for St. Stephen's Parish. The estimated cost is $85,000. Noted June 3.

Lakewood, Ohio—Plans are being prepared by Harlan M. Clark, Arch., 407 New England Bldg., Cleveland, for the construction of a two-story building. The estimated cost is $200,000.

Richmond, Ohio—Plans are being prepared by Paul T. Cahill, Arch., Euclid Bldg., Cleveland, for the construction of a two-story school. The estimated cost is $40,000. G. M. Howard is Clk., Bd. of Education.

Willoughby, Ohio—The Andrews Institute plans to construct an addition to its building. The estimated cost is $50,000.

✚Evansville, Ind.—The contract for the construction of a six-story, 54x144-ft., brick building for the Old State National Bank, has been awarded to the SCARBOROUGH-DAVIES CO., Evansville, at $225,000. Noted Mar. 25.

Indianapolis, Ind.—Plans are being prepared by Frederick W. Wallick, Arch., 1056 Lemcke Annex, for the construction of a four- or five-story coliseum at New York and Meridian St. for the Coliseum Hotel Corporation. The estimated cost is $400,000. A. S. Fletcher, 316 North Meridian St., is Mgr.

LaFayette, Ind.—The Board of Trustees of Purdue University has approved plans for the construction of a $50,000 building to be used by the Department of Veterinary Science.

Muncie, Ind.—C. H. Houck, Arch., is preparing plans for the construction of a two-story dormitory at the county infirmary. An appropriation of $45,000 was recently made by the Commissioners for this purpose.

✚Detroit, Mich.—JOHN FINN & CO., 234 Fort St., Detroit, at about $50,000 has been awarded the contract for the construction of a four-story addition to St. Mary's Hospital on Mullett St. near Hastings St.

Detroit, Mich.—Irwin & Leighton, 126 North 12th St., Philadelphia, Penn., at $587,400, submitted the lowest bid for the construction of the Municipal Court Bldg. George H. Fenkell, City Hall, is Comr. Noted Apr. 22 and May 20.

✚Detroit, Mich.—F. N. COOPER, 301 Penobscot Bldg., has been awarded the contract for the construction of a school at Fort St. and North Waterman Ave. The estimated cost is $115,000. G. A. Gadd is Secy., Bd. of Education. Noted Feb. 4.

Port Huron, Mich.—An election will soon be held to vote on the question of issuing $100,000 in bonds. The proceeds will be used for the construction of a school. Noted May 13.

Port Huron, Mich.—The Women's Benefit Association of the Maccabees plans to construct a building on the site of the Henry Howard homestead on Military St. The estimated cost is $150,000. Miss Bina M. West, Port Huron, is Supreme Commander of the Order.

✚Berwyn, Ill.—BUTLER & CO., 30 North La Salle St., Chicago, has been awarded the contract for the construction of a two-story dormitory for the John Worthy School at 22d St. and Harlem Ave. Estimated cost, $75,000. Charles W. Kallal, 1012 City Hall, is City Arch.

Bloomington, Ill.—George H. Miller, Arch., 404 Evans Bldg., is preparing plans for the construction of a three-story building for the Knights of Pythias. Estimated cost, $50,000.

✚Champaign, Ill.—The contract for the construction of a three-story theater, store and office building for the Mayfield Estate has been awarded to A. W. STOOLMAN, 1101 South Third St., Champaign. Estimated cost, $40,000.

Chicago, Ill.—At an election held June 7 the citizens voted against issuing $2,500,000 in bonds. The proceeds would have been used for the construction of a county jail. Noted Apr. 29 and May 20.

Chicago, Ill.—Carl Barkhausen, Arch., 121 Wisconsin St., Milwaukee, Wis., is preparing plans for the construction of an edifice at 62d and Woodlawn Ave. for the Ninth Church of Christ, Scientist. The estimated cost is $100,000.

Chicago, Ill.—Jasper T. Bright, 111 North Dearborn St., has purchased a site at 55th St. and Maryland Ave. upon which to construct a store and apartment building. The estimated cost is $85,000.

Chicago, Ill.—The citizens, at an election held June 7, voted in favor of the question of issuing $1,000,000 in bonds for the construction of buildings at the county poor farm and $200,000 in bonds for the completion of the courthouse.

Danville, Ill.—Plans are being prepared by L. F. Stuebe, Arch., 415 Adams Bldg., for the construction of a four-story Masonic Temple. The estimated cost is $150,000. James Sutton is Secy. of Masonic Lodge. Noted Dec. 3.

✚Decatur, Ill.—The general contract for the construction of a two-story school, including a gymnasium and auditorium, has been awarded to BAKER BROS., Decatur. The estimated cost is $65,000. R. Montgomery is Pres., Bd. of Education.

Galesburg, Ill.—Plans are being prepared by James B. Dibelka, State Arch., 130 North Fifth Ave., Chicago, for the construction of an armory. The estimated cost is $50,000.

Jerseyville, Ill.—Plans are being prepared by Aaron T. Simmons, 401 First National Bank, Bloomington, for the construction of a two-story high school for the Township School District. The estimated cost is $50,000. Noted Apr. 22.

Maywood, Ill.—E. E. Roberts, 105 North Clark St., Chicago, is preparing plans for the construction of a two-story high school. The estimated cost is $80,000.

Monmouth, Ill.—The State Senate, Springfield, has passed a bill appropriating $50,000 for the construction of an armory.

✚Ottawa, Ill.—J. L. SIMMONS CO., 4239 West Madison St., Chicago, has been awarded the general contract for the construction of a two-story, brick high school. Estimated cost, $200,000. C. H. Kingman is Secy., Bd. of Education. Noted Apr. 1.

Springfield, Ill.—The citizens of School District No. 186 voted in favor of the question of issuing $400,000 in bonds. The proceeds will be used for the construction of a high school.

Urbana, Ill.—A. W. Stoolman, Champaign, at $203,291, submitted the lowest bid for the construction of the Educational, Ceramics and Vivarium buildings at the University of Illinois. E. J. James is Pres. of the university.

✚Lake Geneva, Wis.—The general contract for the construction of a building for the Northwestern Military & Naval Academy has been awarded to MAX E. C. TIMMER, 5415 North Ashland Ave., Chicago, Ill. Estimated cost, $100,000. Marshall & Fox, 38 South Dearborn St., Chicago, Ill., is Arch.

Milwaukee, Wis.—Bids will be received until June 28 by Kirchoff & Rose, Arch., Majestic Bldg., for the construction of a four-story, 200x150-ft. brick and concrete theater, store and office building at Grand Ave. and Sixth St. for the Palace Theater Co. Estimated cost, $400,000. Herman Fehr, Majestic Bldg., is Gen. Mgr. Noted May 6 and 20.

Montello, Wis.—The Board of Supervisors of Marquette County contemplates the construction of a courthouse and jail, including the sheriff's residence. The estimated cost is $50,000. Charles Gay is County Clk.

Waukesha, Wis.—(Official)—The Board of Education has neither selected nor dismissed an architect for the construction of a high school in the Sixth Ward as mentioned in the issue of June 10. Recommendations have been made to the City Council for an appropriation for the high school and central heating plant. G. B. Harris is Pres., Bd. of Education. Noted Mar. 11 and June 10.

Ft. Dodge, Iowa—An election will be held July 2 to vote on the question of issuing $150,000 in bonds. The proceeds will be used for the construction of a school.

✚Linn Grove, Iowa—The general contract for the construction of a two-story brick school has been awarded to T. PARKS, Iowa City, at $42,000. H. C. Moller is County Supt. Noted May 20.

Manchester, Iowa—The Board of Supervisors has called an election to be held Sept. 9 to vote on the question of issuing $50,000 in bonds. The proceeds will be used for the construction of a county hospital.

Mason City, Iowa—At an election held recently the citizens voted in favor of the question of issuing $300,000 in bonds. The proceeds will be used for the construction of a high school. Noted May 27 and June 10.

✚Pella, Iowa—The contract for the construction of a high school has been awarded to G. C. & W. F. KUCHARO & CO., Des Moines, at $40,500. G. K. Thomassen is Pres. and D. G. Gosselin is Secy., Bd. of Education. Noted Jan. 7.

Woodward, Iowa—Bids will soon be received by the State Board of Control for the construction of buildings at the State Colony for Epileptics. The entire cost is estimated at $500,000.

Minneapolis, Minn.—Bids will be received until July 15 by Chapman & Magney, Arch., 509 Essex Bldg., for the construction of a building at the Minnesota College. The estimated cost is $60,000. Noted Dec. 10.

Minneapolis, Minn.—(Official)—Bids will be received about July 19 for the construction of the West Side High School. The estimated cost is $400,000. G. F. Womrath is Executive School Agt.

St Paul, Minn.—Preliminary plans for the construction of a building at Cedar and Central St. for the Minnesota State Historical Society have been submitted to the State Board of Control. Estimated cost, $500,000. C. H. Johnston, Capitol Bank Bldg., is State Arch. Noted Nov. 26 and Apr. 29.

Atchison, Kan.—The Board of Trustees of Midland College plans to construct a gymnasium to cost about $42,000. R. B. Peery is Pres.

Hays, Kan.—C. A. Smith, Arch., Salina, has prepared plans for the construction of a hospital to cost about $100,000.

Minneapolis, Kan.—Contracts will be awarded about Jul 15 for the construction of a two-story, 76x100-ft. school. Estimated cost, $42,000, Owen & Payson, 713 Scarritt Bldg., Kansas City, Mo., is Arch. Noted May 6 and June 17.

✚Topeka, Kan.—The contract for the construction of a four-story fireproof building for the Palace Clothing Co., has been awarded to J. M. LEEPER. The estimated cost is $50,000.

Beatrice, Nebr.—Joseph W. Salmon, Arch., 416 First National Bank, Lincoln, is preparing preliminary plans for the construction of a school and auditorium for the Institute for Feeble Minded. Leo Mathews, State House, Lincoln, is Secy., Bd. of Control.

Omaha, Neb.—The Directors of St. Catherine's Hospital plan to construct an addition to cost about $40,000.

Omaha, Neb.—Preliminary plans are being prepared by W. E. Stockholm, Arch., 426 Range Bldg., for the construction of a gymnasium and lodge building for the Omaha Aerie of Eagles, 1410 Harney St. Estimated cost, $50,000.

Omaha, Neb.—Plans are being prepared by Burd F. Miller, Arch., for the construction of a four-story building at 15th and Jones St., for the Goodrich Drug Co. The estimated cost is $50,000.

Wisner, Neb.—At a recent election the citizens voted in favor of issuing $40,000 in bonds, the proceeds of which will be used for the construction of a school in District No. 30. A. H. Morse, West Blk., is Secy.

Milbank, S. D.—Bids will be received July 2 by E. M. Harber, County Audr., for the construction of a courthouse at Milbank. C. E. Bell, Security Bank Bldg., Minneapolis, Minn., is Arch. Noted May 20.

Grand Forks, N. D.—Bids will be received until July 6 by the Board of Education for the construction of a school. The estimated cost is $200,000.

Havre, Mont.—Plans have been prepared and work will soon begin on the construction of a church and school for the Catholic Congregation. The estimated cost is $60,000.

✚Havre, Mont.—(Official)—OLSON & JOHNSON, Great Falls, at $101,630, has been awarded the contract for the ronstruction of a court house and jail for Hill County. John H. Devine is County Clk. and Recdr. Noted May 13 and June 10.

Lewistown, Mont.—P. C. Dahljelm, Means Bldg., will construct a six-story, 100x160-ft. brick hotel. The estimated cost is $250,000.

Kansas City, Mo.—Bids are being received for the construction of a one-story hotel at 1114 Baltimore Ave. for the Baltimore Avenue Investment Co. J. H. Martling is Arch.

St. Joseph, Mo.—(Official)—Bids will be received until June 29 by the Secretary of the School Board for the construction of the Hosea School. The estimated cost is $60,000. Eckel & Aldrich, Forsee-Corby Bldg., is Arch. Noted May 27 and June 10.

St. Joseph, Mo.—Walter Boschen, Tottle-Lemond Bldg., is preparing plans for the construction of a school at South 12th St. The estimated cost is $45,000. A. J. Young is Secy., Bd. of Education.

✚St. Louis, Mo.—J. GODFREY & CO., St. Louis, have been awarded the contract for the construction of a four-story dormitory at 4949 Forest Park Blvd. for Washington University. Estimated cost, $40,000.

St. Louis, Mo.—The Northern Investment Co. plans to construct a four-story, 155x180-ft. building on 12th and Poplar St. The building will be occupied by the Scudders-Gale Grocery Co., Eighth and Spruce St.

Austin, Tex.—At a recent election the citizens voted in favor of the question of issuing $250,000 in bonds. The proceeds will be used for the construction of public schools. Noted May 13.

Austin, Tex.—Governor James E. Ferguson has vetoed the appropriation of $415,000, which the Legislature recently made for repairing the State Capitol.

✚Dallas, Tex.—HUGHES-O'ROURKE CO., has been awarded the contract for the construction of a three-story building at Young St. and Park Ave. for the Dallas Labor Temple. The estimated cost is $50,000. Noted Mar. 11.

✚Dallas, Tex.—The contract for remodeling the bank building of the Federal Reserve Bank has been awarded to H. J. CURTIS. Estimated cost, $100,000. Noted May 6.

Ft. Worth, Tex.—The Polytechnic Y. M. B. L. plans to construct a high school to cost about $45,000. C. A. Gilliam and S. J. Callaway are members of the School Bd. and L. H. Tandy is Chn. of Bldg. Com.

Galveston, Tex.—Bids will be received until 1 p.m., July 5, by L. S. Green, Arch., 1111 American National Insurance Bldg., Galveston, Tex., for the construction of a six-story office building.

Orange, Tex.—(Official)—An election will be held July 20 to vote on the question of issuing $150,000 in bonds, the proceeds of which will be used for the construction of schools. K. A. Mitchell is Cecy. of Comn. Noted June 10.

Oklahoma, Okla.—The Manhattan Construction Co., Muskogee, at $1,316,653, submitted the lowest bid for the construction of the Oklahoma State Capitol. R. L. Williams is Chn. and Ira Mitchell is Secy. of the Capitol Comn. Noted Dec. 31 and May 20.

Supulpa, Okla.—(Official)—At a recent election the citizens voted against the question of issuing $150,000 in bonds, the proceeds of which was to have been used for the construction of a high school. Noted June 10.

✚Colorado Springs, Colo.—The contract for the construction of a hospital and laundry at the Modern Woodmen Sanatorium has been awarded to DANNEVIK & CURRY, Colorado Springs, at about $66,000. MacLaren & Thomas is Arch. Noted May 27.

Albuquerque, N. M.—Plans are being revised by Shattuck & Hussey, Arch., 19 South La Salle St., Chicago, Ill., for the construction of a four-story Y. M. C. A. building. The estimated cost is $75,000. Edward Christy, Albuquerque, is Assoc. Arch. Noted May 6.

✚Tyrone, N. M.—The contract for the construction of a reinforced-concrete hospital has been awarded to JENNINGS & WOOD, El Paso. The estimated cost is $65,000.

Bellingham, Wash.—The citizens voted in favor of the question of issuing $95,000 in bonds, the proceeds to be used for the construction of an addition to the North Side High School. Noted May 27.

Mt. Vernon, Wash.—(Official)—The citizens recently voted against the question of issuing bonds for the construction of a high school. The project has been indefinately postponed. Stephen & Stephen, New York Blk., Seattle, is Arch. Noted Apr. 22.

The Dalles, Ore.—The Oregon Washington R.R. & Navigation Co. plans to construct terminals at The Dalles and Pilot Rock. The estimated cost is $400,000. J. D. Farrell, Portland, is Pres.

Berkeley, Calif.—The University of California plans to expend about $1,000,000 for buildings. The amount includes $250,000 for the construction of a chemistry building, $350,000 for an agricultural building and $400,000 for enlarging the library. John Galen Howard is Arch. of University and Benjamin Ide Wheeler is Pres.

✚Los Angeles, Calif.—The contract for the construction of a two-story school on Clifford St. has been awarded to SOMERS-LUND CO. Estimated cost, $40,000.

Los Angeles, Calif.—Bids are being received for the construction of a group of three buildings for the Los Angeles High School at the Country Club Drive between Wilshire Blvd. and Pico St. The estimated cost is $500,000. John C. Austin, 1125 Baker-Detwiler Bldg., is Arch. Noted June 3.

Los Angeles, Calif.—The Pacific Mutual Life Insurance Co., Sixth and Olive St., contemplates the construction of a 12-story addition to the office building on Sixth St. W. J. Dodd, 321 Marsh-Strong Bldg., is Arch.

✚Los Angeles, Calif.—The contract for the construction of a school on Macy St. has been awarded to the ALTA PLANING MILL CO., 830 McGarry St., at $40,370. Albert C. Martin is Arch.

Los Angeles, Calif.—The Los Angeles Planing Mill Co., 1812 Industrial St., at $95,987, was the lowest bidder on the general contract for the construction of a two-story school and gymnasium at Vernon Ave. and First St. Hunt & Burns, Laughlin Bldg., is Arch. Noted May 20 and June 3.

✚Los Angeles, Calif.—The JOHN SIMPSON CO., Baker-Detwiler Bldg., at $58,559, has been awarded the contract for the construction of a school on Ann St.

✚Los Angeles, Calif.—A. GRANT, Builders Exchange, at $41,533, has been awarded the general contract for the construction of a two-story, brick and concrete school on Budling Ave. south of 59th St. Alfred Rea and Charles E. Garstang, Black Bldg., are Archs. Noted June 17.

Los Angeles, Calif.—The Cresmer Mfg. Co., at $50,500, was the lowest bidder on the general contract for the construction of a brick school at South Park Ave. Walker & Vawter is Arch. Noted June 3.

Oakland, Calif.—The Merritt Hospital plans to construct a two-story addition to the hospital at Hawthorne and Webster St. Estimated cost, $60,000. Walter J. Matthews is Arch.

✚Owensmouth, Calif.—C. W. KENT & SONS, Glendale, at $62,200, has been awarded the contract for the construction of the two-story Owensmouth High School. Dennis & Hewitt, 618 Fay Bldg., Los Angeles, is Arch. Noted May 27 and June 17.

San Bernardino, Calif.—An election will soon be held to vote on the question of issuing $175,000 in bonds. The proceeds will be used for the construction of a city hall and for the purchasing of the site.

✚San Francisco, Calif.—The Board of Public Works has awarded the contract for the construction of a Juvenile Court and Detention Home to the PACIFIC CONSTRUCTION CO., 16 California St., San Francisco, at $97,771. Noted May 27.

San Francisco, Calif.—The McCreery Estate Co. will construct a 100x550-ft. produce market at Eighth and Market St.

San Francisco, Calif.—Plans have been prepared for the construction of a 100x550-ft. retail produce market to be known as the Central Park Market, at Eighth and Market St.

Susanville, Calif.—At a recent election the citizens voted in favor of issuing $100,000 in bonds. The proceeds will be used for the construction of a courthouse and county hospital. Noted Feb. 11 and May 20.

✚Brantford, Ont.—SCHULTZ BROS. have been awarded the contract for the construction of a department store for W. C. Livingston. The estimated cost is $63,000.

The Builders Iron Foundry, Providence, R. I., has recently received contracts for supplying Venturi meters for the measurement of cold water, as follows: Three 36-in. Venturi meter tubes and one 20-in. Venturi meter tube, equipped with Type M register-indicator-recorders, for the City of Ottawa, Ont.; one 24-in. high pressure Venturi meter tube with Type M register-indicator-recorders to the Remington Arms Co., Bridgeport, Conn.; twelve 4-in. Venturi meter tubes with Type M indicator-recorders, to the Haverhill Electric Co., Haverhill, Mass.; one 4-in. Venturi meter tube and one 2-in. Venturi meter tube equipped with one Type M register-indicator-recorder, to the Metropolitan Life Insurance Co., Wilton, N. Y.; also for two 6-in. Venturi meter tubes with Type M register-indicator-recorders. One 4-in. Venturi meter tube with U-tube Manometer for the measurement of air has been ordered by the City of Milwaukee.

George C. Wilson has been appointed manager of the office of the Independent Pneumatic Tool Co. at Chicago. F. H. Charbono has been transferred to the Boston office.

The Standard Engineering Co., Farmers Bank Bldg., Pittsburgh, Penn., has recently been organized by M. R. Moxley and F. H. Burdick. The firm will specialize in the erection of steel coal tipples and other structures.

The Builders Iron Foundry, Providence, R. I., has recently received an order from the City of Aberdeen, Wash., for a 12-in. meter tube and a 20-in. meter tube for water works service.

We have been advised that the **Holbrook, Cabot & Rollins Corporation,** and Mr. George B. Fry, 331 Madison Ave., have moved their offices to the Vanderbilt Concourse, 52 Vanderbilt Ave., New York, N. Y.

Charles H. Preston, Jr., M. Am. Soc. C. E., Consult. Engr., Waterbury, Conn., who for the past two years has been engaged in preliminary investigations into the feasibility of a huge water conservation scheme for 35 manufacturing corporations in the Naugatuck Valley, has completed the investigation and is about to render a report on the project to the commission appointed by the manufacturers. The scheme involves the storage of 18,000,000,000 gal.

Willy Lamot of Antwerp, but temporarily located at Shardhighs, Halstead, Essex, England, has, with several Belgian business men, created an organization having for its object the introduction into Belgium, as soon as the war is over, of American products and manufactures; also to employ as agents and representatives a number of Belgian manufacturers and business men who have been partly ruined, but still possess enough capital and can give the necessary guarantees as to good faith as agents, dealers, and the like. It is suggested that any letters or circulars which manufacturers desire to send, be sent in duplicate, with an interval of about a week between the mailing of them.

WATER-WORKS IMPROVEMENT, PARIS, ILL.

✚Bids were received May 18 by the City Council, Paris, Ill., for water-works improvement, consisting of four earth dams, a diversion channel, a wet well and an intake, and two sewers. Bids were received on four alternatives. The bidders on Alternative A, the desired project, were: (A) HICKEY BROS., St. Louis, Mo. (awarded contract); (B) Arrow Engineering Co., St. Louis; (C) M. Hays & Sons, Janesville, Wis.; (D) P. M. Johnson & Co., St. Elmo; (E) L. K. Sherman Co., Chicago; (F) Robert Curdie, John Strubel and G. D. Helmick; (G) A. J. Yawger & Co., Indianapolis, Ind.; (H) Harrington Bros., St. Louis; (I) M. C. Conners & Co., Chicago; (J) Alan J. Parrish and the Walsh Construction Co. The item bids were as follows:

	A	B	C	D	E	F	G	H	I	J
4100 cu.yd. excavation for cut-off and spillway	$0.30	$0.2245	$0.50	$0.50	$ .60	$0.30	$0.30	$0.30	$0.30	$0.55
800 cu.yd. excavation on dam site	0.30	0.3232	0.50	0.30	0.30	0.30	0.30	0.21	0.30	0.55
150 cu.yd. rock excavation	1.00	2.22	2.00	1.00	2.00	2.25	0.90	1.50	3.00	2.00
5 cu.yd. grouting	12.60	11.19½	12.00	3.25	15.00	15.00	10.00	12.00	8.75	7.00
48,400 cu.yd. earth fill	0.23	0.2239	0.295	0.24	0.28	0.28	0.25	0.21	0.30	0.23½
1880 cu.yd. concrete in spillway	6.35	10.785	5.90	9.00	8.00	6.75	6.00	7.25	8.25	7.10
540 cu.yd. concrete in cut-off wall	6.50	11.19	7.00	9.00	9.00	6.90	5.00	6.40	6.30	7.10
59 ft. 36-in. vitrified pipe in place	3.00	2.98	4.75	4.50	5.00	2.50	2.00	3.00	3.70	2.00
1 36-in. sluice gate	500.00	392.70	250.00	250.00	300.00	250.00	240.00	325.00	250.00	375.00
90 squares seeding banks (100 sq.yd.)	2.00	5.61	0.20	2.50	0.40	1.00	0.60	0.50	0.25	0.25
Cleaning and grubbing (lump sum)	350.00	112.20	250.00	250.00	100.00	200.00	100.00	100.00	100.00	100.00
100 cu.yd. earth excavation	0.30	0.2243	0.50	0.30	0.40	0.30	0.30	0.25	0.40	0.55
6400 cu.yd. earth fill	0.25	0.2243	0.34	0.24	0.28	0.28	0.225	0.25	0.30	0.25
20 squares seeding banks	2.00	5.61	0.20	2.50	0.40	1.00	0.60	0.50	0.25	0.25
50,000 cu.yd. earth excavation	0.18	0.2242	0.21	0.21	0.20	0.30	0.235	0.22	0.20	0.25½
3200 cu.yd. rock excavation	0.60	1.122	1.50	0.85	1.50	2.25	0.90	1.20	1.10	1.10
800 cu.yd. earth fill in ravine	0.18	0.2238	0.20	0.30	0.23	0.20	0.20	0.25	0.30	0.28
105 cu.yd. concrete bridge	15.00	22.25	12.00	12.00	15.00	11.00	18.00	14.00	......	10.75
Earth fill on bridge (lump sum)	100.00	259.00	400.00	75.00	100.00	25.00	25.00	50.00	150.00	300.00
2700 ft. 15-in. sewer 0 to 5 ft. deep	1.00	0.897	0.90	1.00	0.95	0.60	0.60	0.50	0.61	0.70
700 ft. 15-in. sewer 5 to 10 ft. deep	1.25	1.122	1.25	1.25	1.25	0.80	0.75	0.60	0.81	1.00
11 manholes, 0 to 5 ft. deep	35.00	44.88	30.00	45.00	35.00	30.00	30.00	25.00	15.00	40.00
4 manholes, 5 to 10 ft. deep	50.00	55.00	50.00	50.00	40.00	35.00	40.00	40.00	19.00	50.00
5 cu.yd. concrete filling	10.00	10.99	12.00	10.00	6.00	6.00	5.50	7.00	10.00	8.00
10 cu.yd. concrete	12.00	10.99	15.00	20.00	14.00	15.00	6.50	10.00	12.00	10.50
160 ft. pipe line	6.50	4.71	1.75	3.00	5.00	11.00	6.00	3.00	3.50	5.00
1 quarter bend	30.00	19.88	15.00	25.00	4.00	18.00	10.00	20.00	20.00	15.00
45 cu.yd. excavation in wet well	3.00	3.365	1.00	6.00	3.00	3.50	3.50	2.00	4.00	1.00
2 cu.yd. rock excavation	5.00	11.22	4.00	10.00	3.00	5.00	5.00	5.00	10.00	2.00
Iron ladder	15.00	39.25	25.00	50.00	45.00	14.00	0.30	10.00	15.00	15.00
Extended totals	$49,412	$64,099	$56,483	$58,578	$60,857	$62,687	$50,281	$50,698	$56,123	$56,135

Contracts to Be Let

Bids received until June 29, 1915.

Water-Works, Pump Station, Reservoir and Mains

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council, at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard Time, of the 29th day of June, 1915, and then publicly opened and read, for the construction of a Water-Works for the Village.

The work to be done includes the construction of a pump station, 200,000-gallon reinforced-concrete reservoir, and approximately 8 miles of water mains, 4" to 8" in size.

Bids will be made on the work as a whole.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of the proposal, or by a bond with surety satisfactory to the Village Council.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Copies of the plans, proposal forms, specifications and forms of bonds and contract can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Ten ($10.00) Dollars with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded upon the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned. Copies of the specifications alone may be obtained upon depositing Two ($2.00) Dollars.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bids which it deems most favorable to the Village of Rittman, Ohio.

By order of the Village Council.

VANCE HICKIN, Clerk.

Bids received until July 1, 1915.

Proposals for Street Paving

Lebanon, Penn., June 15, 1915.

Sealed proposals will be received by the Mayor and Council of the City of Lebanon, Pa., until 5 o'clock P.M. on the 1st day of July, 1915, for furnishing all materials and doing all work necessary for the complete construction of about 4,000 square yards of street paving on 8th Street between the N. side of the tracks of the Philadelphia & Reading Railroad Co. and the N. side of Lehman Street. Separate proposals for the paving of 9th Street from the S. side of Chestnut Street to near the S. rail of the Philadelphia & Reading Railroad Co.'s tracks, comprising about 12,400 square yards of pavement, and a separate proposal on Lehman Street from the E. side of 4th Street to the W. side of 9th Street, comprising about 8,300 square yards of pavement. The above quantities are approximate only.

Specifications, forms of proposals, envelopes, etc., may be obtained from the office of the City Engineer. A certified check on a solvent bank must accompany each bid. Three hundred and sixty dollars for the 8th Street, Eleven hundred dollars for the 9th Street and Seven hundred and fifty dollars for the Lehman Street bid. All checks must be drawn in favor of the City of Lebanon, Pa. The payments for the cost of paving and curbing the said highways shall be from amounts to be collected by the City Treasurer from property owners whose land fronts or abuts on said highways upon the basis authorized, and that the City of Lebanon shall under no circumstances be held responsible for the payment of any part of the cost of said improvements except as to the cost of paving intersections of said streets and alleys and the paving or curbing in front of properties exempt by law from the paying of said improvements.

The right to reject any or all bids or parts of bids is hereby reserved. Address communications to

T. R. CROWELL, City Engineer.

Attest: DAN M. SHARP, City Clerk.

Bids received until June 29, 1915.

Water-Works Pumping Equipment

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council, at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard Time, of the 29th day of June, 1915, and then publicly opened and read, for Water-Works Pumping Equipment.

The work to be done includes a 50 H.P. horizontal gas engine, a triplex pump of 400 gallons per minute capacity, 2 air compressors, motor driven multi-stage centrifugal pump, of 200 gallons per minute capacity, and other necessary pumping equipment.

Bids will be made on the work as a whole.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of proposal, or by a bond with surety satisfactory to the Village Council.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Copies of the plans, proposal forms, specifications and forms of bonds and contract can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Five ($5.00) Dollars with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded upon the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned. Copies of the specifications alone may be obtained upon depositing Two ($2.00) Dollars.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bids which it deems most favorable to the Village of Rittman, Ohio.

By order of the Village Council.

VANCE HICKIN, Clerk.

Bids received until July 7, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. on Wednesday, the 7th day of July, 1915, for the repair of highways in the following counties:

Albany (two contracts—resurfacing); Broome (one contract); Cayuga (two contracts—Resurfacing and Surface Treatment); Columbia (4 contracts—Surface Treatment); Delaware (one contract—Surface Treatment); Dutchess (one contract—Resurfacing); Erie (one contract—Resurfacing); Franklin (one contract—Surface Treatment); Greene (one contract—Surface Treatment); Herkimer (one contract—Resurfacing); Madison (one contract—Resurfacing); Monroe (one contract—Resurfacing); Oneida (5 contracts—Resurfacing and Surface Treatment); Ontario (two contracts—Resurfacing and Surface Treatment); Orange (one contract—Surface Treatment); Rensselaer (one contract—Resurfacing); Rockland (two contracts—Resurfacing); Saratoga (one contract—Resurfacing); St. Lawrence (two contracts—surface treatment); Schenectady (one contract—Surface Treatment); Suffolk (one contract—Surface Treatment); Westchester (one contract—Surface Treatment).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose divisions the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.

I. J. MORRIS, Secretary.

Bids received until Feb. 1, 1915.

Almshouse Building

Bridgeport, Conn.

Sealed proposals will be received by the undersigned until 12:00 o'clock noon, Monday, Feb. 1st, 1915, for the erection of Almshouse Building for the City of Bridgeport, Conn. Separate bids will be received on the following: Item No. 1, General Construction of building, including the electrical work, Item No. 2, Mechanical Equipment.

Each bid must be accompanied by a certified check for 2½% of the amount of the bid. All checks to be made payable to the City of Bridgeport. Checks will be returned to unsuccessful bidders as soon as possible after awarding the contracts. The successful contractors will be required to give satisfactory bond guaranteeing the faithful performance of each contract aggregating in amount to 50% of the amount of the contract.

The Board of Charities reserves the right to reject any or all bids.

One set of drawings and specifications may be obtained upon application to the undersigned upon payment of $25.00. This deposit to be forfeited if drawings and specifications are not returned in good order at the expiration of ten days from date of receiving same.

BOARD OF CONTRACT & SUPPLY,
Room No. 28, City Hall, Bridgeport, Conn.

⁂

Bids received until Jan. 20, 1915.

Fire Hydrants, etc.

Sweetwater, Texas.

The City of Sweetwater, Texas, will consider proposals at 2 P.M. of January 20, 1915, for the purchase of the following materials:

50 fire hydrants, 6" inlet, one 4" outlet, two 2½" outlets, six foot barrel, automatic drain and working pressure of 125 lb. per sq. inch.

60 iron body, hub ends, gate valves in sizes ranging from 4" to 12" with working pressure of 125 lb. per sq. inch.

½ dozen blowoff valves for 12" line with working pressure of 60 lb. per sq. inch.

½ dozen automatic air escapes for same line.

1500 18" extension service boxes.

1500 water meters.

1500 Mueller corporation cocks in sizes from ½" to 1".

1500 wiped joint 18" goosenecks connections from ½" to 1".

Above are approximate quantities required and the City reserves the right to purchase more or less as desired, or to reject all proposals.

Dealers in these materials are invited to submit data and prices on or before the above mentioned date.

GEO. T. WILSON, Mayor.

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Bids received until Jan. 21, 1915.

Motor for Laundry

Poughkeepsie, N. Y.

Sealed proposals for Motor for Laundry at the Hudson River State Hospital, Poughkeepsie, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 2:30 P.M., Jan. 21, 1915, when they will be publicly opened and read. Proposals shall be enclosed in envelopes furnished by the State Architect, sealed and endorsed, and shall be accompanied by a certified check in the sum of One hundred fifty Dollars. The contractor to whom the award is made will be required to furnish a surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract, and in accordance with the terms of specification No. 2144. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Hudson River State Hospital, Poughkeepsie, N. Y., at the New York office of the Department of Architecture, Room No. 1224, Woolworth Building; at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposals may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher.

LEWIS M. FARRINGTON,
Assistant Secretary.

Dated, Albany, N. Y., December 30, 1914.

Bids received until Jan. 14, 1915.

Superstructures of Highway Bridges

THE SANITARY DISTRICT OF CHICAGO TO CONTRACTORS

Sealed proposals indorsed "PROPOSALS FOR SUPERSTRUCTURES OF HIGHWAY BRIDGES ACROSS THE CALUMET-SAG CHANNEL" will be received by the Clerk of The Sanitary District of Chicago at the office of said District, Room 700, No. 910 South Michigan Avenue, Chicago, Illinois, until 12 M., standard time on Thursday, JANUARY 14, 1915, and will be publicly opened by the Board of Trustees of said Sanitary District at a meeting to be held on that day or at the first meeting thereafter.

The work for which such tenders are invited consists of the furnishing, fabrication and delivery of all metal work for the superstructures of the following bridges:

DIVISION A: A STEEL HIGHWAY BRIDGE across the Calumet-Sag Channel of The Sanitary District of Chicago on the line of WEST EIGHTY-SECOND STREET, situated in the Township of Palos, County of Cook, State of Illinois, and DIVISION B: A STEEL HIGHWAY BRIDGE across the Calumet Sag Channel of The Sanitary District of Chicago on the line of BURR OAK AVENUE, situated in the Township of Worth, County of Cook, State of Illinois.

Proposals may be submitted for the work under either of said Divisions or for the work under both of said Divisions.

A deposit of THREE HUNDRED DOLLARS ($300.00) is required with each proposal for the work under Division A, and of SEVEN HUNDRED DOLLARS ($700.00) with each proposal for the work under Division B, or a total of ONE THOUSAND DOLLARS ($1,000.00) with each proposal for the work under both of said Divisions.

The work under EACH of said Divisions may be awarded under a separate contract or the work under BOTH of said Divisions may be awarded under one contract, as the Sanitary District may elect.

All proposals must be made upon blank forms of proposal furnished by said Sanitary District, and shall be made in accordance with and to conform to all the terms and conditions set forth in "Requirements for Bidding and Instructions to Bidders" attached thereto.

Form of proposal, contract, specifications, and plans may be obtained upon application at the office of said Sanitary District. A deposit of Five Dollars ($5.00) will be required for each set of plans and specifications taken out. Said sum of Five Dollars ($5.00) so deposited, will be refunded by said Sanitary District upon the return of said plans and specifications to said Sanitary District, in good condition, provided same are returned within thirty (30) days after the date on which said proposals are opened.

The Board of Trustees of said Sanitary District reserves the right to reject any or all proposals.

THE SANITARY DISTRICT OF CHICAGO,
By THOMAS A. SMYTH,
Attest: President of its Board of Trustees.
JOHN McGILLEN, Clerk.
Chicago, December 28, 1914.

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Bids received until Jan. 21, 1915.

Underground Steam Connections

Collins, N. Y.

Sealed proposals for Underground Steam Connections, etc., for the existing buildings at the Gowanda State Homeopathic Hospital, Collins, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until January 21, 1915, at 2:30 p.m., when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and endorsed, and shall be accompanied by a certified check in the sum of Three hundred Dollars. The contractor to whom the award is made will be required to furnish a surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract, and in accordance with the terms of specification No. 2188. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Gowanda State Homeopathic Hospital, Collins, N. Y., at the New York Office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank form proposals may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher.

LEWIS M. FARRINGTON,
Assistant Secretary.

Dated, Albany, N. Y., December 30, 1914.

Bids received until Jan. 20, 1915.

Gravity Conduit

Sweetwater, Texas.

The City of Sweetwater, Texas, will open bids at 2 P.M. on January 20, 1915, for the construction of a 12" diameter cast iron gravity conduit from Lake Trammell to Sweetwater, a distance of 6¾ miles. Engineer's estimate of cost is $16,000.00 not including pipe which has been purchased by the City.

Plans and specifications are on file in the office of the City Secretary. A deposit of $15.00 will be required to guarantee the return of same in good condition.

The City reserves the right to reject any or all bids.

W. H. BARTLETT, City Secretary.

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Bids received until Jan. 20, 1915.

Stand Pipe

Sweetwater, Texas.

The City of Sweetwater will consider proposals at 2 P.M. of January 20, 1915, for furnishing and erecting a 250,000 gallon capacity cylindrical steel stand pipe, 28' in diameter and 60' high. Concrete base will be constructed by the City. Manufacturers are invited to submit plans, specifications and prices on or before the above date.

GEO. T. WILSON, Mayor.

U. S. ENGINEER OFFICE, Cincinnati, O., Dec. 26, 1914.—Sealed proposals for constructing Lock and Dam No. Ohio River, near Maysville, Ky., will be received at this offic until 2 p.m. (Central Time), January 26, 1915, and then pul licly opened. Information on application. H. JERVEY, L Col., Engrs.

PROPOSALS FOR CONSTRUCTING CONCRETE STOREHOUSE, Office Const. Quartermaster, U. S. A., Fort Warren, Mass., December 18, 1914.—Sealed proposals in triplicate will be received at this office until 12 o'clock noon, January 1 1915, and then opened for furnishing all labor and materials for the construction of a Concrete Storehouse at Fort Strong, Mass. Full information furnished upon application. Deposit, certified check, $5.00 required for plans. CAPT. H. T. MATTHEWS, Q.H.C., Const. Quartermaster.

U. S. ENGINEER OFFICE, CHICAGO, ILL., Dec. 19, 1914.—Sealed proposals for reconstructing with piles and timber, part of East Pier at Michigan City Harbor, Ind., will be received at this office until 10 A.M., Jan. 19, 1915, and then publicly opened. Information on application. W. V. JUDSON, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, Wheeling, W. Va., December 30, 1914.—Sealed proposals for furnishing and erecting steel lock gates for Dam No. 15, Ohio River, will be received at this office until 11 a.m. (Eastern time), January 30, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

U. S. ENGINEER OFFICE, First District, New York City, Room 710, Army Building, 39 Whitehall Street, New York, N. Y., December 22, 1914.—Sealed proposals for Dredging in Hudson River Channel, N. Y., will be received at this office until 12 M., January 22, 1915, and then publicly opened. Information on application. W. M. BLACK, Col. Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 34, technical school and 12 years' broad experience, desires position, in or near New York preferred. P. W. 635, Eng. News.

GRADUATE MECHANICAL ENGINEER; 25; with 3 years' broad experience handling men and selling building specialty; references. P. W. 702, Eng. News, Chicago.

MECHANICAL ENGINEER, 20 years' experience financial, executive, selling and advertising work, open for engagement. P. W. 674, Eng. News.

MECHANICAL ENGINEER desires position with company doing work in Latin-America, railroad, mine or construction. Nine years' experience designing and superintendency. Speaks Spanish fluently. P. W. 675, Eng. News, Chicago.

Civil Engineers

CIVIL ENGINEER, twelve years' experience, desires position on civil, railroad or municipal work. P. W. 485, Eng. News, Chicago.

ENGINEER, 14 years' experience; surveys on railroad location and construction, irrigation, drainage, United States Geological, subdivisions, flood prevention and sewers. 1844 Millard Ave., Chicago.

CIVIL ENGINEER, age 34, graduate, 12 years' experience general survey and construction work on Eastern railroads, desires position. P. W. 658, Eng. News.

SOUTH AMERICAN CIVIL ENGINEER, trained, and with twelve years' practical experience in this country, wishes to become connected with a contracting or manufacturing firm desiring representation in Argentina or Chile. Have good business and family connections in Santiago and Valparaiso. P. W. 672, Eng. News, Chicago.

CIVIL ENGINEER, eight years' experience on heavy construction; city and street work. Graduate of leading technical school. P. W. 684, Eng. News.

CIVIL ENGINEER, 26, technical graduate, 5 years' experience in railroad maintenance and municipal engineering and construction. Good references. P. W. 686, Eng. News, Chicago.

CIVIL ENGINEER, 24, university graduate, with two years' varied building construction experience, will accept anything reasonable; efficient; well recommended. P. W. 690, Eng. News.

CIVIL ENGINEER; good technical education; six years' experience in field, drafting and design, timber, steel and concrete structures (specializing in reinforced concrete), tracks, yards and earthwork, on heavy railroad construction and Panama Canal. P. W. 689, Eng. News.

CIVIL ENGINEER; technical graduate with business experience; 11 years' engineering experience in general and coal mine surveying, railroad construction, structural detailing and special track design. Would make an able assistant to a consulting engineer. P. W. 691, Eng. News.

CIVIL ENGINEER, technical graduate, with seven years' experience in field and office, desires responsible position. P. W. 692, Eng. News.

Bridge and Structural

CHIEF DRAFTSMAN, charge 60 men, desires change; age 35; strong personal force; proved executive ability; 14 years' comprehensive experience. P. W. 520, Eng. News.

STRUCTURAL DRAFTSMAN; 6 years' experience checking and detailing shop drawings for buildings, bridges and industrial plants. P. W. 631, Eng. News.

STRUCTURAL ENGINEER; Quebec bridge experience; can design detail, check or take charge of work. P. W. 693, Eng. News.

CHIEF DRAFTSMAN, charge 25 men, desires position; fully abreast of modern methods; proven executive ability; 15 years' varied experience; East preferred. P. W. 662, Eng. News.

STRUCTURAL ENGINEER; technical graduate; good all around steel man; also thorough knowledge of reinforced concrete. P. W. 694, Eng. News.

STRUCTURAL STEEL DRAFTSMAN; thoroughly experienced in designing detailing and checking; excellent reference; wishes position in New York or vicinity. P. W. 695, Eng. News.

STRUCTURAL ENGINEER; designer, detailer and checker; five years' good experience; technical graduate. P. W. 696, Eng. News.

BRIDGE AND STRUCTURAL ENGINEER; responsible experience with large bridge company in Canada. P. W. 697, Eng. News.

GRADUATE ENGINEER; designer bridge and structural work, reinforced concrete, railway and transmission line structures; general contracting and building. Experience in office and field. Open for engagement. P. W. 683, Eng. News.

STRUCTURAL ENGINEER; age, 33; university C. E.; eight years' experience designing steel and reinforced concrete structures. P. W. 705, Eng. News.

ERECTING ENGINEER AND SUPERINTENDENT of erecting bridges and steel structures, age 27, married, experienced erector of all types of movable bridges, cantilever, etc. Experienced on heavy foundations, pins and abutments, now employed. P. W. 673, Eng. News, Chicago.

STRUCTURAL DRAFTSMAN, age 24, having some gasoline engine experience also speaks and writes modern Greek fluently. P. W. 676, Eng. News.

Surveyors

INSTRUMENTMAN, 6 years' experience on location and construction. Age 28; speak Spanish. P. W. 647, Eng. News, Chicago.

AS CONCRETE INSPECTOR or rodman wanted by young man, 27 years, six years' experience on construction work. Good references. P. W. 681, Eng. News.

Draftsmen

DRAFTSMAN, designer; steel, general construction, 15 years; experience in charge, immediately available, city. P. W. 669, Eng. News.

Superintendents, Etc.

SUPERINTENDENT of building construction of broad experience, available January 1. References. Anywhere. P. W. 646, Eng. News.

ENGINEER; six years on railroad construction, bridges, buildings, dams, as designer, detailer, resident engineer, superintendent; opening wanted where ability, energy and results will lead to permanent opening. P. W. 663, Eng. News, Chicago.

SUPERINTENDENT, ESTIMATOR, 15 years' experience, executive ability, desires responsible position; go anywhere. P. W. 700, Eng. News, Chicago.

AGE, 26; college graduate; 8 years' experience in field and office along mining and steel works construction lines; location immaterial; best references. P. W. 704, Eng. News.

ESTIMATOR TO GENERAL CONTRACTOR; reliable, industrious; graduate C. E.; over 10 years' experience buildings and general engineering, private and public work; good designer and draftsman; reinforced concrete and fireproofing specialist; excellent knowledge of quantities on masonry, carpentry and allied building trades; will be open for engagement Jan. 15. P. W. 701, Eng. News.

CONSULTING ENGINEER AND SALESMAN; 5 years' traveling experience, introducing and contracting for construction materials, among state, city and private architects, engineers and contractors throughout Eastern half of the United States; open for similar engagement Jan. 15. P. W. 706, Eng. News.

GENERAL FOREMAN, 15 years' experience, 10 years on building and repairing of dams and powerhouses, first class on plant layout derricks, orange peel and dragline bucket work; anywhere after Jan. 15. References. P. W. 678, Eng. News, Chicago.

CONSTRUCTION ENGINEER, available Feb. 1; 45, married, absolutely temperate; 15 years' experience on large work; excavation, railroad building, all kinds of concrete and building construction, mill-wrighting, handling and placing heavy machinery. Anywhere. Best of references. P. W. 677, Eng. News, Chicago.

ENGINEER or GENERAL FOREMAN; 4 years in Mexico on hydraulic dam and railroad construction; 3 years on canal and railroad location; at present employed, desires to locate in South America; speaks Spanish. P. W. 680, Eng. News.

ENGINEER with eight years' field experience on municipal work, irrigation, state highway and railroad location and construction, will be open for position the first of the year. P. W. 640, Eng. News.

MIDDLE AGED MAN, 15 years' practical experience, general contracting, desires responsible position as superintendent and estimator. P. W. 685, Eng. News.

POSITIONS OPEN

YOUNG MAN with good technical education and knowledge of stenography wanted in contractor's office. $50 month. Apply 38 Park Row, N. Y. Room, 1103.

A NO. 1 RADIAL BRICK and reinforced concrete stack designer and estimator. State experience and salary desired. P. 679, Eng News.

Civil-Service Opportunities

Competitive examinations for the civil-service positions named below will be held on or up to the dates given. For detailed information, write the United States Civil Service Commission, Washington, D. C., or other addresses specified.

JUNIOR ENGINEER—On March 6, 1915, examinations will be held in Illinois for Junior Engineer in State Highway Commission. Residence in Illinois not necessary. Starting salary $75 a month and necessary expenses. Minimum age, 21 years. Applications must be filed before Feb. 27, 1915. For details write State Civil Service Commission, Springfield, Illinois.

SANITARY ENGINEER (Male)—$2500; examination Feb. 2; for vacancy in the Public Health Service and positions as they occur requiring similar qualifications; write to the United States Civil Service Commission, Washington, D. C., for Circular No. 75 and Application Forms Nos. 304 and 2095.

STRUCTURAL STEEL DRAFTSMAN (Male)—$4 per day; examination Feb. 3-4; for vacancy at the U. S. Naval Station at Newport, R. I., and for positions requiring similar qualifications; write to the United States Civil Service Commission, Washington, D. C., for Circular No. 71 and Application Form No. 1312.

TOPOGRAPHIC AID, TEMPORARY (Male)—$40-$75 per month; examination Feb. 3; for temporary employment under the Geological Survey during the field season; write to the United States Civil Service Commission, Washington, D. C., for Circular No. 79 and Application Form No. 1312.

JUNIOR TOPOGRAPHER (Male)—$720-$1200; examination Feb. 4-5; for vacancy in the Geological Survey; write to the United States Civil Service Commission, Washington, D. C., for Circular No. 78 and Application Form No. 1312.

CIVIL ENGINEER STUDENT (Male)—$720; examination Feb. 3; for vacancy in the Office of Public Roads, Department of Agriculture or other positions requiring similar qualifications; write to the United States Civil Service Commission, Washington, D. C., for Circular No. 72 and Application Form No. 1312.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registratoin fee on demand any time within the first six months when no position is secured.

ENGINEERING MEN in every line for available positions. Applicants and employers write, The Toledo Engineering Agency, Toledo, Ohio.

WANTED

Agents and Salesmen

WANTED; SELLING HOUSE—A profitable opportunity is open for first class selling houses in New York and Chicago having live organizations, to secure very remunerative contracts for the Middle and Western States. Exclusive selling rights will be given for handling high grade machinery with an assured market. No letters answered from those without rating unless substantiated by references showing necessary ability to secure large contracts with steam power users. W. 688, Eng. News.

MISCELLANEOUS

STUDENTS wanted in all schools and colleges to sell the "Gilson Slide Rule." Liberal proposition. Slide Rule and instructions, 50c. Clair Gilson, Niles, Mich.

CHARTS FOR REINFORCED-CONCRETE BEAM DESIGN according to report of Joint Committee (Nov. 20, 1912). Rational and economical. Price, 40 cents. C. Siquot, 6 East German St., Baltimore, Md.

BUSINESS OPPORTUNITIES

WANTED—To sublet about 500,000 cu.yd. dragline excavation to reliable party who is in position to do work at once. B. O. 656, Eng. News, Chicago.

STRUCTURAL STEEL ENGINEER will connect with practicing engineer or architect on partnership basis. B. O. 703, Eng. News.

ENGINEER, ten years' general construction experience, wants partner with capital for building concrete and brick roads in Ohio. B. O. 682, Eng. News.

A VERY PROFITABLE INVESTMENT can be made in a recently established company having a cash surplus, engaged in manufacturing mechanical apparatus amply protected by patents. Orders show exceptionally large profits and with a view to extending their field of operations the company desires to add to its organization a qualified business man who can invest a substantial amount, preferably one who can act as treasurer and assist in the office management; but a responsible position can be offered a young man having an engineering training with the necessary capital to make a good connection. Proposition is closely held and will deal only with principals desiring a live interest and square treatment. Please indicate qualifications in first letter. B. O. 687, Eng. News.

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

N

ADDRESSES

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW CO., Wm. B., Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
HYATT, C. W., 93 E. Oneida St., Baldwinsville, N. Y.
INGERSOLL, H. G., 76 William St., New York, N. Y.—Much of this equipment can be seen at work, vicinity N. Y.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
MARYLAND Equipment & Supply Co., Baltimore, Md.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SHERWOOD, E. C., 50 Church St., New York, N. Y.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., **39 Cortlandt** St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition. Theo. Smith & Sons Co., Jersey City, N. J.

Steam driven, 3 Laidlaw-Dunn-Gordon duplex 2-stage and 5 Norwalk tandem 2-stage.—NEW RIVER.

1120 cu.ft. Ingersoll-Rand XB-2 like new—belt driven; 179 cu.ft. Ingersoll NF-I—10x10x10.—MARYLAND.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

150 H.P. horizontal tubular, Union, Atlas, Erie City, Keeler and West Point. Pressure up to 125 lbs.—NEW RIVER.

40, 50, 60 and 80 H.P. loco. type on skids.—PIPE & C. S. CO.

75 H.P. loco. type 100 lb. pressure allowed.—INGERSOLL.

BUCKETS

One four leaf 1 yd. Orange peel.—PIPE & C. S. CO.

5—¾ cu. yd. standard clam shells.—STALLEY.

1—1 yd. Williams single line clam shell.—BECKWITH.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

¾ yd. Hayward Orange Peel; ¾ yd. and ½ yd. Hayward Clam Shell.—MARYLAND.

2—½ yd. steel hoisting buckets.—HYATT.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed. —GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

⅞ yd. orange peel Smith.—INGERSOLL.

CABLEWAYS

400' for sewer work. Carson-Lidgerwood eng.—INGERSOLL.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

CARS

[36" Gauge]

40—4 yd. Western dump.—INGERSOLL.

[24" Gauge]

30 Koppel 36 cu.ft. Steel Cars.—MARYLAND.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

DERRICKS

1 Steel stiff leg, 70' boom; 1 steel guy, 70' boom, 25 tons cap.; 1 steel traveling, 45' boom.—GIVIN.

45 & 55 ft. Boom Terry & Tench Stiff Legs; 90 ft. Boom A. H. & D. Co. Guy; 45 ft. Boom All Steel Traveling Derrick—Mundy 3 drum engine and Boiler and steam swinger complete. —MARYLAND.

Trav., 25' spread, 60' boom DD Mundy hoist.—INGERSOLL.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

1—5 H. P. Mietz & Weiss.—PIPE & C. S. CO.

FEED WATER HEATERS

Several types, capacities up to 1200 HP.—NEW RIVER.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 6 Arnott Hammer.—HYATT.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33" diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

12 Lidgerwood, Lambert and others. Also one 5 lever Stroudsburg 7x10 cableway engine. PIPE & C. S. CO.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

1—7½ H.P. single drum electric hoist.—BECKWITH.

SEVENTY-FIVE hoists for immediate delivery.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

Gurley Lt. Mt. Transit V circ. with guard; reversion tel. level; ex. diag. eye piece; stadia; Ainsworth Solar; Cost $240. Good cond., repair perfect. $175.—R. F. GRAY, Lusk, Wyo.

1 "Sterling" Architects Wye level.—HYATT.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS.

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

Baldwin, 14x24, 4-driver, S. T., new this year.—DALLETT

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

11x16 Vulcan and 10x16 Porter 4 driver S. T.—MARYLAND.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

9x14 Porter and 10x16 Baldwin.—BRADEN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

9x14—10x16 cyl. Porter-Vulcan contractors' type.—MARYLAND.

1—Baldwin 10x16" 16 ton dinkey, sale or rent.—SHERWOOD.

1—18 ton Porter; 1—18 ton American.—INGERSOLL.

[24" Gauge]

6x10 Porter, 6x10 Baldwin, 7x12 Vulcan, 7x12 Baldwin, all 4 driver saddle tank.—MARYLAND.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50′ boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21′ boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20′ boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

Browning 15 ton No. 8—8 wheel type—45′ boom; Browning 10 ton No. 1—4 wheel type—40′ boom.—MARYLAND.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE.

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 Continuous Foote with 10 H.P. d.c. motor direct connected; 3—¾ yd. and 2—½ yd. Ransomes with engines—on skids. Two No. 2½ Smiths with engines—on wheels.—PIPE & C. S. CO.

Haines gravity, ½ yd.—INGERSOLL.

MOTORS, ELECTRIC

1—30 H.P. General Electric 220 v. direct current.—SHERWOOD.

PILING, SHEET STEEL

5000 pieces Lackawanna and Carnegie.—GRIMSHAW.

[Wanted]

50 lin.ft. good Lackawanna, in pieces, about 25′ long.—CHATFIELD & CHATFIELD, Inc., 94 Benedict St., Waterbury, Conn.

PIPE

All sizes. ½" to 18" with perfect threads and couplings, also larger sizes. Pipe cut to sketch. PIPE & C. S. CO.

PIPE MACHINES

Saunders, Williams, Stover; from ¾ to 8".—PIPE & C. S. CO.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

PUMPS

1 Cameron 3⅛x2x4 Steam pump.—SAMPSON.

1 No. 8, 1 No. 9, 1 No. 10 Cameron.—MARINE.

2 Davidson Simplex 9x9x11.—MARINE.

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE.

1 No. 486 Emerson, 4" suc., 3" dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

2 Worthington 1,500,000 gal. Horizontal, Duplex Power, 14" diameter, 10" stroke.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

RAILS

24" and 20" industrial rail and turntables.—PIPE & C. S. CO

30, 40, 45, 56, 60 and 70 lb. Relaying Rail.—MARYLAND.

16 and 20 lb.—24" Gauge Portable Track.—MARYLAND.

100 tons 40 to 50 lb. rails, ties, etc.—INGERSOLL.

ROAD ROLLERS

10-ton macadam roller, at a bargain; condition fine.—F. S. 666, Eng. News.

[Wanted]

Tandem paving roller. Send description and price to W. 667, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

SPRINKLER

500 gal. sanitary auto. street flushing mach.—INGERSOLL.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "0" traction, modern, high number.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

No. 0 Thew traction, ⅝ yd. dipper, 15 tons, heavy boom type. First class condition. Will make price low for quick cash sale. —L. F. SEYFERT'S SONS, INC., 437 North Third St., Phila., Pa.

1—Model D 1909 Vulcan, in good repair; will do excellent work on dirt; shop No. 1427.—TOLEDO STONE & GLASS SAND CO., 221 Ohio Bldg., Toledo, Ohio.

Bucyrus 14-B—¾ yd. Traction 1914; Marion-Osgood MO-18—¾ yd. Traction 1914; Marion Model 31 Traction—1914; Thew Model A-No. 1 Traction shop No. 739; Thew Model No. 0 Traction shop No. 470—cheap.—MARYLAND.

2—70 ton Bucyrus 2½ yd. dippers.—INGERSOLL.

TRAVELING CRANES

1 15-ton electric 36′ 6" span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

TURBINES

2 Houston 44" Vertical, with beveled gears, shafting, etc. —WATER & LIGHT COMMISSION, Fergus Falls, Minn.

FOR SALE

Air Reheaters
Blowers and Fans
Buckets
Cars
Car Tipple
Rock Drills
Elevators
Tripods
Drill Columns
Electric Locomotives
Grout Machines
Man Locks
Pile Hammer
Pumps
Saw
Steel Pontoon
Spiral Pipe
Wrought Iron Pipe
Drill Steels

Apply to

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.

Firm building good engineering specialties and desiring to acquire

Export or Eastern Business

can make advantageous New York connection with party having technical ability, selling experience, and a complete office equipment.

Address W. 621, Engineering News.

DEAN STEAM PUMP

8—16—10—18 Complex Condensing Duplex Pumping Engine.
5⅛—8—7 Condenser. 3—2—3 Duplex Boiler Feed Pump.
48" Horizontal Return Tubular Boiler.

For sale, in good condition.

Apply Superintendent, Mt. Auburn Cemetery, Cambridge, Mass.

FOR SALE

Nine scows, various dimensions, derricks, pile driver leads, 600 tons Carnegie steel sheeting, wood piling, heavy bridge and dock timber, engines and boilers, miscellaneous contractors' equipment, ten steel bridges, 2-52′, 2-48′, 2-45′, 2-37′, 2-31′.

Address, EDWARD GRAY

Foot of Orleans St., Detroit, Mich.

At Auction Sale

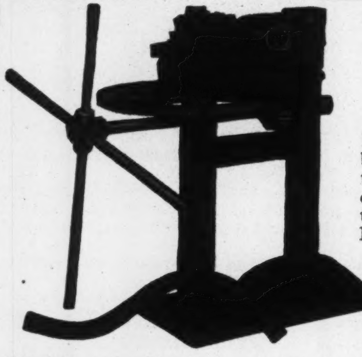
Bridge and Structural Plant of the Lane Bridge Company, Painted Post, Steuben County, N. Y., sold to the highest bidder by order of Bankruptcy Court, on

JANUARY 23, 1915

Main building 80'x160', nearly new. Erie, D. L. & W. and New York Central Railroads. Entire holdings, including plant, machinery, erection tools, stock of structural steel and supplies.

For further information, address the Trustees,

A. F. Williams
G. D. Case } **Painted Post, N. Y.**



"WALLACE" Pipe Bender

Improved Style No. 5-A

Piping of steel, iron, brass, copper, etc., up to 2 inches diameter can be bent cold by this efficient machine. Reasonable in price. Send for our 16-page catalogue.

WALLACE SUPPLY CO.,
MFRS.

418 Orleans St., Chicago **2316 Woolworth Bldg., New York City**

CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York. Western Union & Lieber Codes Used.
Cable Address, Pawnee Havana. Havana Office, Zulueta 36 D.

THE SNARE AND TRIEST COMPANY
Woolworth Building, 233 Broadway **New York**

WHAT ARE YOU BUILDING?

Don't guess. Let us get you a large, clean core of the foundation of your bridge or dam site. Examine it in daylight.

THE J. A. BRENNAN DRILLING CO.
Pittsburgh, Pa

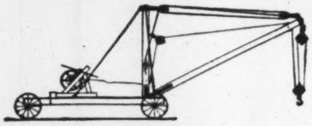
Contractors for Diamond Drilling.
We make a specialty of prospecting bituminous coal.

WESTERN

Earth and Stone Handling Machinery

Air Dump Cars—Hand Dump Cars—Spreader Cars—Scrapers—Road Machinery—Portable Rock Crushers—Dump Wagons—Elevating Graders. Wagon Loaders and Ditchers. **Glad to send Catalogs.**

Western Wheeled Scraper Co., Farnsworth Ave. Aurora, Ill.



A Labor Saver

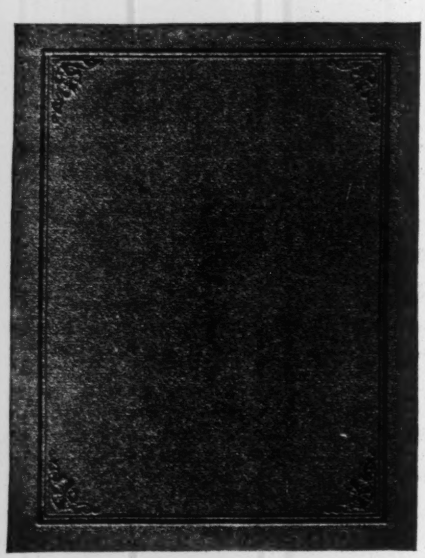
Derricks—Cableways

John T. Horton

Specialist in Hoisting Equipment

90 West St., New York

"BUY THE BINDER"



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ENGINEERING NEWS, 10th AVE. at 36th ST., NEW YORK

Contracts to Be Let

Bids received until Jan. 30, 1915.

Laundry Building, Power House, etc.

Letchworth Village, Thiells, N. Y.

Sealed proposals for Laundry Building, Construction, Heating, Plumbing, Electric Work and Laundry Machinery; for the Power House Construction, Heating Plant and Underground Piping, Plumbing and Drainage and Electric Work at the Letchworth Village, Thiells, N. Y., will be received by the Hon. Frank A. Vanderlip, President, Board of Managers, Letchworth Village, 55 Wall Street, Room 215, New York City, until 11 A.M. on Saturday, January 30, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of 5% of the amount of bid for Construction, Heating, Plumbing and Electric Work of the Laundry Building, in the sum of $450 for Laundry Machinery, in the sum of $1300 for the Construction of Power House, in the sum of 5% of the amount of bid of Heating Plant, Underground Piping, in the sum of $60 for Plumbing and Drainage, in the sum of $25 for the Electric Work. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specification Nos. 1838, 2109, 2110, 2111, 2139, 2162, 2168, 2186, 2169 and 2170. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at Letchworth Village, Thiells, N. Y.; at the New York office of the Department of Architecture, Rooom 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice and upon the deposit of a certified check in the sum of $10.00, made payable to the State of New York, for each division of the work, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

⁂

Bids received until Jan. 21, 1915.

Building at State Hospital

Binghamton, N. Y.

Sealed proposals for Construction, Heating, Plumbing and Electric work for new building for Chronic Patients; for New Boiler, Stack, etc., at the Binghamton State Hospital, Binghamton, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until two-thirty p.m., Jan. 21st, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and endorsed, and shall be accompanied by a certified check in the sum of 5% of the amount of bid for Construction work; in the sum of $1250 for Heating work; in the sum of $500 for Plumbing work; in the sum of $250 for Electric work, and in the sum of 5% of the amount of bid for New Boiler, Stacks, etc. The contractors to whom awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty (30) days after official notice of award of contract, and in accordance with the terms of Specifications Nos. 2100, 2114, 2115, 2116 and 2191. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Binghamton State Hospital, at the New York Office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice, and upon the deposit of certified check in the sum of $10.00 made payable to the State of New York, for each division of the work, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher.

Dated Albany, N. Y., December 23, 1914.

LEWIS M. FARRINGTON,
Assistant Secretary.

Bids received until Feb. 23, 1915.

Columbia River Interstate Bridge

Portland, Oregon.

Sealed proposals will be received by the Columbia River Interstate Bridge Commission on February 23, 1915, at two P.M., in room 201 of Multnomah County Court House, Portland, Oregon, for the furnishing of all materials and performing of all work for the construction of the Columbia River Interstate Bridge and Approaches. The bridge and approaches are for highway and street car traffic and comprise about 5000 linear feet of steel structure and 12,000 linear feet of embankment; including about 9500 tons of steel, about 1,000,000 cubic yards of embankment, and about 29,000 cubic yards of concrete. Contracts will be let under several sections to one or more bidders for a part or for the whole of the work.

Proposals and bids shall be subject to all requirements of the specifications, plans, contract, contractors' bonds, and proposal forms; and shall be made upon blank forms provided in the specifications. The bidder to whom a contract may be awarded shall promptly execute a formal contract and shall furnish a penal bond with good and sufficient sureties satisfactory to the Commissioners in an amount equal to the total contract price, for the faithful performance of said contract and all provisions thereof.

To all bids there shall be attached a certified check of the bidder, certified to by a responsible bank, made payable to Wm. N. Marshall, Secretary, of an amount of ten per cent. of the total bidding price, and the bidder who has a contract awarded to him and who fails promptly and properly to execute said contract, or bond, shall forfeit said check. The said check shall be taken and considered as liquidated damages and not a penalty for failure of such bidder to execute said contract and bond. Upon the execution of said contract and bond by the successful bidder, the said check shall be returned to him. The checks of unsuccessful bidders shall be returned to them after the contract and bond with the successful bidder are duly executed.

The contract will be awarded to the lowest responsible bidder, but the Commission reserves the right to reject any and all bids. Multnomah County provides five-sevenths and Clarke County two-sevenths of the funds for payments.

Plans and specifications are on file in the office of the County Clerk of Multnomah County, Oregon, in the office of the County Clerk of Clarke County, Washington, and in the office of State Commissioner of Highways at Salem, Oregon. Copies of the plans and specifications may be secured from the Secretary of the Interstate Bridge Commission at Vancouver, Washington, or from the Consulting Engineers, Waddell & Harrington, at Kansas City, Missouri, by depositing twenty-five dollars. The amount of the deposit will be refunded upon the return of the plans in good order accompanied by a bid; or one-half the amount of the deposit will be refunded upon the return of the plans in good order without a bid.

WM. N. MARSHALL, Secretary.

⁂

Bids received until Jan. 20, 1915.

Gravity Conduit

Sweetwater, Texas.

The City of Sweetwater, Texas, will open bids at 2 P.M. on January 20, 1915, for the construction of a 12" diameter cast iron gravity conduit from Lake Trammell to Sweetwater, a distance of 6¾ miles. Engineer's estimate of cost is $16,000.00 not including pipe which has been purchased by the City.

Plans and specifications are on file in the office of the City Secretary. A deposit of $15.00 will be required to guarantee the return of same in good condition.

The City reserves the right to reject any or all bids.

W. H. BARTLETT, City Secretary.

Bids received until Feb. 2, 1915.

Alterations to Electric Plant

Bath, N. Y.

Sealed proposals for alterations to Electric Plant at the New York State Soldiers & Sailors Home, Bath, N. Y., will be received by Hon. Joseph A. Goulden, President, Board of Trustees, New York State Soldiers & Sailors Home, Bath, N. Y., until February 2, 1915, at eleven o'clock A.M. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of 5% of the amount of bid. The contractor to whom the award is made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 2063. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Soldiers & Sailors Home, Bath, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of Ten Dollars, made payable to the State of New York, which check will be returned when plans and specifications are returned in good condition to Lewis F. Pilcher, State Architect.

WILLIAM H. NICHOLS, Secretary.

Dated Bath, N. Y., January 6, 1915.

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Bids received until Jan. 19, 1915.

Earth Levee

Augusta, Ga.

SEALED PROPOSALS, addressed to the City Council of Augusta, Georgia, will be received by the River and Canal Commission at its office, 747 Broad Street, Augusta, Georgia, at 12 o'clock Tuesday, January 19th, for furnishing all labor and outfit and constructing section No. 4 of the earth levee at Augusta, Georgia, requiring 250,000 cubic yards of earth fill and 30,000 cubic yards of excavation. This will be scraper or wagon work.

Also at the same time and place bids will be received for the construction of:

960 lineal feet of reinforced concrete box sewer 7 feet by four and one-half feet.
420 lineal feet of 48-inch brick sewer.
530 lineal feet of 42-inch brick sewer.
760 lineal feet of 36-inch brick sewer.
330 lineal feet of 24-inch pipe sewer.

Certified check for $300.00 will be required with each bid.

The City reserves the right to reject any and all bids.

A bond will be required from the successful bidder.

Plans and specifications can be had on application to the undersigned.

NISBET WINGFIELD, Chief Engineer,
747 Broad St., Augusta, Ga.

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Bids received until Jan. 29, 1915.

Street Signs

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Friday, January 29th, 1915, at 12 o'clock, Noon, for furnishing all labor and materials and making complete and delivering, ready to put in place, F.O.B. cars, Wilkes-Barre, Penn., two hundred (200) more or less four-way street signs together with all necessary fittings and four hundred (400) more or less single street signs, such as are fastened to buildings. Each proposal to be accompanied by a certified bank check of the bidder in the sum of $100.00 conditioned upon the fulfillment of the contract by the bidder to whom the same is awarded in accordance to the terms of the contract to be entered into. Bids not accompanied by checks will not be considered. Proposals to be endorsed, "Proposals for Street Signs" and addressed to Fred H. Gates, City Clerk. The City Council reserves the right to reject any or all bids received.

CHARLES N. LOVELAND, Superintendent,
Department of Streets and Public Improvements.

Bids received until Jan. 19, 1915.

Bridge Construction

STATE OF MARYLAND STATE ROADS COMMISSION

SEALED PROPOSALS AS FOLLOWS:

Contract No. Bc-17 Secs. 7 and 8—BALTIMORE CITY

One (1) reinforced concrete bridge (16-30′ and 1-32′) spans, girder construction. One (1) reinforced concrete bridge (7-15′) spans, girder construction.	Across the main branch of Patapsco River between Baltimore and Anne Arundel Counties.

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 19th day of January, 1915, at which time and place they will be publicly opened and read.

Bids must be made upon the blank form contained in the book of specifications. Specifications and plans will be furnished by the Commission upon application and cash payment of $1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Thousand ($5,000) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 7th day of January, 1915.

O. E. WELLER, Chairman.

WM. L. MARCY, Secretary.

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Bids received until Jan. 20, 1915.

Fire Hydrants, etc.

Sweetwater, Texas.

The City of Sweetwater, Texas, will consider proposals at 2 P.M. of January 20, 1915, for the purchase of the following materials:

50 fire hydrants, 6″ inlet, one 4″ outlet, two 2½″ outlets, six foot barrel, automatic drain and working pressure of 125 lb. per sq. inch.
60 iron body, hub ends, gate valves in sizes ranging from 4″ to 12″ with working pressure of 125 lb. per sq. inch.
½ dozen blowoff valves for 12″ line with working pressure of 60 lb. per sq. inch.
½ dozen automatic air escapes for same line.
1500 18″ extension service boxes.
1500 water meters.
1500 Mueller corporation cocks in sizes from ½″ to 1″.
1500 wiped joint 18″ goosenecks connections from ½″ to 1″.

Above are approximate quantities required and the City reserves the right to purchase more or less as desired, or to reject all proposals.

Dealers in these materials are invited to submit data and prices on or before the above mentioned date.

GEO. T. WILSON, Mayor.

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Bids received until Feb. 19, 1915.

Pumping Station and Equipment

Quincy, Illinois, January, 1915.

Sealed bids will be received until 2 o'clock P.M., February 19th, 1915, at office of Edmund T. Perkins Engineering Company, First Nat'l. Bk. Bldg., Chicago, for furnishing all materials, machinery and labor for erection and installation of an electric pumping station for the South Quincy Drainage and Levee District, Adams County, Illinois. Pumping Station requires construction of Pump House, Substation, Suction and Discharge Bays, laying of about 180 feet of C. I. pipe, hauling and erection of all machinery and wiring for electric machinery and lighting.

Bids for the pumping machinery will be received either as a whole or for each part. The plans call for 2 centrifugal pumps, equipped with chain drive and necessary auxiliaries, a 5 ton traveling crane and 2—200 H.P. motors and auxiliaries and 3—150 K.A. Transformers.

For further information address the Edmund T. Perkins Engineering Company.

The Commissioners reserve the right to reject any or all bids.

WALTER P. MARTINDALE, Secretary.

Bids received until Feb. 2, 1915.

Southerly Portion of Sec. 18—Main Sewer

PASSAIC VALLEY SEWERAGE COMMISSIONERS.

Paterson, N. J.

Notice is hereby given that the Passaic Valley Sewerage Commissioners have designated Tuesday, the second day of February, nineteen hundred and fifteen, at two o'clock in the afternoon, as the time when they will meet at their usual place of meeting, **Essex Building, Clinton Street, Newark, New Jersey, to receive proposals, in writing, for the construction of the SOUTHERLY PORTION OF SECTION 18 of the MAIN INTERCEPTING SEWER**, in the City of Paterson, in the County of Passaic, in New Jersey.

Particulars that may enable Contractors to judge of the character of the work are given below:

PROPOSALS WILL BE RECEIVED FOR THE CONSTRUCTION OF THE SOUTHERLY PORTION OF SECTION 18, IN PATERSON, ALONG ALTERNATE ROUTES, WHICH FOR IDENTIFICATION HAVE BEEN STYLED, AS FOLLOWS: (1) RIVER BANK ROUTE; (2) TUNNEL ROUTE.

All bids will be compared on the basis of the Engineer's Estimate of Quantities of the work to be done, as follows:

ESTIMATE OF QUANTITIES.

(1). RIVER BANK ROUTE:

Item	Description	Quantity
Item 1.	Earth Excavation and Refilling, in trench, for 65-inch concrete sewer	2,308 Linear Feet.
Item 2.	Excavation in earth, rock or earth and rock together, and refilling, in tunnel, for 65-inch concrete sewer	1,040 Linear Feet.
Item 3.	Rock excavation, in trench	100 Cubic Yards.
Item 4.	Concrete Masonry, with Portland cement mortar, in place, in trench	2,000 Cubic Yards.
Item 5.	Concrete Masonry, with Portland cement mortar, in place, in tunnel	1,200 Cubic Yards.
Item 6.	Brick Masonry, in manholes and elsewhere, laid with Portland cement mortar, including all appurtenant work	100 Cubic Yards.
Item 7.	Steel for concrete reinforcement, in place	1,000 Pounds.
Item 8.	Rip rap, in place	2,000 Long Tons.
Item 9.	Special steel and timber sheeting and shoring between Sta. 17+25 and Sta. 18+05, including all support and protection of N. Y. S. & W. R.R. bridge, etc.	Lump Sum.

(2) TUNNEL ROUTE:

Item	Description	Quantity
Item 1.	Earth excavation and refilling, in trench, for 65-inch concrete sewer	**695 Linear Feet.**
Item 2.	Excavation in earth, rock, or earth and rock together and refilling, in tunnel, for 65-inch concrete sewer	2,700 Linear Feet.
Item 3.	Rock excavation, in trench	100 Cubic Yards.
Item 4.	Concrete Masonry, with Portland cement mortar, in place, in trench	600 Cubic Yards.
Item 5.	Concrete Masonry, with Portland cement mortar, in place, in tunnel	3,100 Cubic Yards.
Item 6.	Brick Masonry, in manholes and elsewhere, laid with Portland cement mortar, including all appurtenant work	100 Cubic Yards.
Item 7.	Steel for concrete reinforcement	2,000 Pounds.

Drawings, form of contract and specifications, and blank form for proposals may be obtained at the Commissioners' office from William M. Brown, Chief Engineer.

The Commissioners reserve the right to reject any or all bids.

PASSAIC VALLEY SEWERAGE COMMISSIONERS.
JOHN S. GIBSON, Clerk.
January 5, 1915.

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Bids received until Jan. 18, 1915.

Furnishing Hardware

Albany, N. Y.

Sealed proposals for furnishing the finishing hardware for Armory and Stable for Troop B, 1st Cavalry, N. G. N. Y., Albany, N. Y., will be received by Col. Franklin W. Ward, Secretary, Board of Armory Commissioners, 174 State Street, Albany, N. Y., until 4 o'clock P.M., on Monday, January 18th, when they will be publicly opened and read. The right is reserved to reject any or all bids. Copies of the specifications, together with blank forms and envelopes for proposals can be obtained upon reasonable notice, at the Department of Architecture, Capitol, Albany, N. Y., and may be seen at the New York Office of the Department of Architecture, Room 1224, Woolworth Building, New York City.

Bids received until Jan. 20, 1915.

Paving—Contracts Nos. 102—3—4—5

OFFICE OF THE PAVING COMMISSION.

Baltimore, Maryland

SEPARATE SEALED PROPOSALS, executed in duplicate, addressed to the Board of Awards **care of** the City Register, will be received by him at his office in the City Hall until 11:00 A.M. Wednesday, January 20th, 1915, to grade, curb and pave with Sheet Asphalt, Vitrified Block and Granite Block, all on a concrete base, the streets listed in the following contracts:

VITRIFIED BLOCK & GRANITE BLOCK PAVING CONTRACT NO. 102.

	from	to
Franklin St.	Fremont Ave.	Penna. Ave.
Druid Hill Ave.	Paca St.	McMechen St.
George St.	Myrtle Ave.	Penna. Ave.

Vitrified Block—21,000 sq.yds.
Granite Block— 6,720 " "
Certified Check—$1,800

SHEET ASPHALT, VITRIFIED BLOCK AND GRANITE BLOCK PAVING CONTRACT NO. 103.

Fremont Ave.	Lexington St.	Penna. Ave.
George St.	Fremont Ave.	Myrtle Ave.
Biddle St.	Shields Place	Brevard St.
Druid Hill Ave.	Eutaw St.	Paca St.
Druid Hill Ave.	McMechen St.	North Ave.

Sheet Asphalt— 36,800 sq.yds.
Vitrified Block—11,750 " "
Granite Block— 11,250 " "
Wood Block— 800 " "
Certified Check—$4,000

SHEET ASPHALT, VITRIFIED BLOCK AND GRANITE BLOCK PAVING CONTRACT NO. 104.

Carey St.	Pratt St.	North Ave.
Edmondson Ave.	Fulton Ave.	Gilmor St.
Edmondson Ave.	Calhoun St.	Fremont Ave.

Sheet Asphalt— 34,550 sq.yds.
Vitrified Block—15,800 " "
Granite Block— 2,330 " "
Wood Block— 1,650 " "
Certified Check—$3,300

SHEET ASPHALT, VITRIFIED BLOCK AND GRANITE BLOCK PAVING CONTRACT NO. 105.

Greene St.	Lexington St.	Franklin St.
Read St.	Cathedral St.	Calvert St.
Dolphin St.	Fremont Ave.	Brevard St.
Lanvale St.	Druid Hill Ave.	Madison Ave.
Mosher St.	Arlington Ave.	Division St.

Sheet Asphalt— 20,500 sq.yds.
Vitrified Block—13,000 " "
Granite Block— 4,560 " "
Wood Block— 900 " "
Certified Check—$2,500

The figures above represent the approximate quantities of the principal items appearing in the contracts.

Specifications and proposal sheets can be obtained upon application to the office of the Paving Commission, City Hall. A deposit of $5.00 will be required for a specification covering each contract. This will not be refunded unless a bid is filed.

Plans and profiles are on file for the information of bidders in the office of the Consulting Engineer.

The Board of Awards reserves the right to reject any and all bids. A certified check of the bidder on a clearing house bank, drawn to the order of the Mayor and City Council of Baltimore to the amount as recited above, must accompany each bid.

The successful bidder will be required to furnish bond and to comply with the City Charter respecting contracts.

By order of the Paving Commission.

R. KEITH COMPTON,
Chairman and Consulting Engineer.
J. MYERS HEDIAN, Secretary.
Approved: JOHN HUBERT,
Acting Pres. Board of Awards.

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Bids received until Jan. 27, 1915.

Southeast End Sewer District

Rockford, Ill., Jan. 9, 1915.

Sealed proposals will be received until 11 o'clock A.M. January 27, 1915, at the office of the President of the Board of Local Improvements of the City of Rockford, Illinois, for the construction of what is known as the Southeast End Sewer District. Approximate quantities as follows: 17,081 ft. of 9-inch sewer pipe, 11,942 ft. 10-inch, 8324 ft. 12-inch, 4181 ft. 15-inch, 1063 ft. 18-inch, 1779 ft. 20-inch, 787 ft. 24-inch, 3641 ft. 27-inch, 1326 ft. 30-inch, 8135 ft. 33-inch, 49 ordinary manholes, 41 combination manholes, 33 lampholes, and 10 flushtanks.

Plans and specifications will be furnished upon application to the City Engineer of the City of Rockford.

W. W. BENNETT,
President of the Board of Local Improvements.

Bids received until Feb. 15, 1915.

Electric Hoists

DEPARTMENT OF WHARVES, DOCKS AND FERRIES,
555 Bourse Building,
Philadelphia, January 7, 1915.

Sealed proposals endorsed "Bids for Electric Hoists at Southwark Piers, in the Delaware River, between Catharine and Christian Streets," and addressed to the undersigned at the office above mentioned, will be received until 12 o'clock noon, Monday, February 15, 1915, and then publicly opened.

Plans, specifications and blank forms upon which bids must be made can be obtained at the office above mentioned.

The bidders' attention is called to the fact that either one or two 50 H.P. Electric Winches with remote control will be purchased, and that bids are solicited and payment for the above mentioned work is to be made out of the Loan of $11,300,000 voted for at an election held November 3, 1914, when the same has been appropriated by City Councils.

No bid will be considered unless accompanied by a certificate from the City Solicitor to the effect that the provisions of an Ordinance requiring proposal bonds on all bids exceeding in amount $500.00, approved May 25, 1860, have been complied with.

The Director reserves to himself the right to reject any or all bids as he may deem best for the interest of the City of Philadelphia.

GEO. W. NORRIS, Director.

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Bids received until Jan. 21, 1915.

Water Softening Plant

Buffalo, N. Y.

Sealed proposals for Water Softening Plant at the Buffalo State Hospital, Buffalo, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 2:30 p.m., January 21st, 1915, when they will be publicly opened and read. Proposals shall be made on blanks and enclosed in an envelope; all furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of Five per cent. (5%) of the amount of bid. Contractor, to whom the award is made, will be required to furnish surety company bond in the sum of fifty per cent. (50%) of the amount of contract within Thirty (30) days after official notice of award of contract, and in accordance with the terms of specification No. 1997. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Buffalo State Hospital, Buffalo, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to, and in the discretion of the State Architect, Lewis F. Pilcher.

E. S. ELWOOD, Secretary.

Dated, Albany, N. Y., January 8, 1915.

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Bids received until Feb. 9, 1915.

Sedimentation Basin

Philadelphia, Pa.

Bids will be received at Room 216 City Hall, Philadelphia, and opened February 9, 1915, at noon, in Room 225 City Hall, Philadelphia, for a Sedimentation Basin at Torresdale filters. Bidders will be required to file a bond for $500, and an additional surety company guarantee with bid. Plans and specifications can be had at Room 701 City Hall. A deposit of $10.00 is required for plans and specifications.

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Bids received until Jan. 20, 1915.

Stand Pipe

Sweetwater, Texas.

The City of Sweetwater will consider proposals at 2 P.M. of January 20, 1915, for furnishing and erecting a 250,000 gallon capacity cylindrical steel stand pipe, 28′ in diameter and 60′ high. Concrete base will be constructed by the City. Manufacturers are invited to submit plans, specifications and prices on or before the above date.

Bids received until Jan. 21, 1915.

Motor for Laundry

Poughkeepsie, N. Y.

Sealed proposals for Motor for Laundry at the Hudson River State Hospital, Poughkeepsie, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 2:30 P.M., Jan. 21, 1915, when they will be publicly opened and read. Proposals shall be enclosed in envelopes furnished by the State Architect, sealed and endorsed, and shall be accompanied by a certified check in the sum of One hundred fifty Dollars. The contractor to whom the award is made will be required to furnish a surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract, and in accordance with the terms of specification No. 2144. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Hudson River State Hospital, Poughkeepsie, N. Y., at the New York office of the Department of Architecture, Room No. 1224, Woolworth Building; at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposals may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher.

LEWIS M. FARRINGTON,
Assistant Secretary.

Dated, Albany, N. Y., December 30, 1914.

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Bids received until Jan. 29, 1915.

Open Well

Bedford Hills, N. Y.

Sealed proposals for New Large Open Well at the New York State Reformatory for Women, Bedford Hills, N. Y., will be received by Hon. James Wood, President of the Board of Managers, New York State Reformatory for Women, Bedford Hills, N. Y., until 2 P.M., January 29, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of 5% of the amount of bid. Contractors to whom the award is made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 2171. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Reformatory for Women, Bedford Hills, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher.

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TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., January 5, 1915.—Plans and specifications are now approaching completion for a central heating, lighting and power plant, to be erected in this city under the direction of this office. These plans and specifications will be ready for delivery on or after January 15. Bids may be submitted for the entire work or for any one of the following sections: Power plant building complete, with steel stacks; boilers; generating apparatus; pumping equipment; condensers; coal and ash handling apparatus; steam and water piping; switching gear; tunnels; substation apparatus; etc. Prospective bidders should immediately submit to this office applications for plans and specifications, stating the portions of the work upon which they desire to bid. If it appears that the applicant is in a position to bid on all of the work in any one of the sections of the project, or upon the entire work, the plans and specifications will be forwarded. No plans or specifications will be furnished sub-bidders or others not in a position to submit a bid on all of the work comprised in at least one section. The Department will be able to allow only about 15 days for the preparation of estimates. At the time plans and specifications are forwarded to bidders the date for the opening of bids will be stated, and this date will not be extended. O. WENDEROTH, Supervising Architect.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., January 2, 1915.—SEALED PROPOSALS will be opened in this office at 3 p.m., March 6, 1915, for the construction complete (including mechanical equipment, except elevator and approaches) of the United States Post Office and Court House at Lawton, Oklahoma, Three story and basement building; ground-area, 6,700 square feet; fireproof construction; stone and brick facing; tin roof. Drawings and specifications may be obtained after January 23, 1915, from the Custodian of site at Lawton, Oklahoma, or at this office, in the discretion of the Supervising Architect. O. WENDEROTH, Supervising Architect.

Bids received until Feb. 8, 1915.

Ashby Reservoir

FITCHBURG, MASS., WATER WORKS.

Sealed bids for constructing Ashby Reservoir, Fitchburg Water Supply System, will be received by the Board of Water Commissioners at their office, City Hall, Main Street, Fitchburg, Mass., until 2 o'clock P.M., Monday, February 8, 1915. Bids must be upon the blank form of proposal furnished. Each bid must be accompanied by a certified check drawn on a National bank or trust company established in some city in the State of Massachusetts, or the City of New York, for seven thousand five hundred dollars ($7,500). A contract bond in the sum of thirty-five thousand dollars ($35,000) with a surety company will be required. The main features of the construction are an earth dam approx. 1040 ft. long, max. height about 25 ft.; an earth dike approx. 1090 ft. long, max. height about 19 feet; thin reinforced concrete curtain walls for both dam and dike; concrete spillway dams and paved channel; concrete gate-well, gate-house, gate manhole and pipe lines; and about 7,000 linear feet of gravel road construction.

The principal items of work are approximately as follows:

Clearing and grubbing	60 acres
Earth excavation	54,000 cubic yards
Rock excavation	4,700 cubic yards
Concrete masonry	3,000 cubic yards
Steel reinforcing bars	210,000 pounds
Stone paving	55,000 square yards

Required date of completion of contract July 1, 1916. Premium for completion October 1, 1915, five thousand dollars ($5,000). Contract drawings, form of proposal, contract and specifications may be obtained at office of the Water Commissioners in Fitchburg, or at office of Metcalf & Eddy, Engineers, 14 Beacon Street, Boston, Mass., after Jan. 16. A deposit of ten dollars ($10) will be required on plans and specifications. Plans and specifications may also be seen at office of Metcalf & Eddy, Harris Trust Bldg., Chicago, Ill., and at office of "Engineering News," New York City.

THOMAS P. SHELDON,
ARTHUR A. TRAIN,
FRANK H. FOSS,
Board of Water Commissioner

METCALF & EDDY,
Consulting Engineers, Boston, Mass.
January 12, 1915.

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SEALED PROPOSALS will be received at the Office of the Lighthouse Inspector, Philadelphia, Pa., until 2 o'clock p.m., February 1, 1915, and then opened, for repairs and extensions to timber groynes and bulkhead at Cape Henlopen, Delaware. Blank proposals and particulars may be obtained by addressing the above Office.

PROPOSALS FOR MATERIAL FOR THE PUMPING PLANT OF DRY DOCK No. 1, Balboa Terminals.—Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 A.M., February 24, 1915, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 891) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney Central Building, New Orleans, La.; and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala., and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; and Commercial Club, Tacoma, Wash. F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

PROPOSALS FOR VALVES AND ACCESSORIES for Dry Dock No. 1, Balboa Terminals.—Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 11:30 a.m., February 24, 1915, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 892) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala., and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.—F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

Bids received until Feb. 1, 1915.

Storm and Sanitary Sewer Construction

San Antonio, Tex., January 9, 1915.

Sealed bids will be received by the undersigned until 4:00 o'clock p.m., on February 1st, 1915, for the construction and completion of Sanitary Sewers and Storm Water Sewers previously let to Wm. G. Schuwirth Co., in approximate amounts and sizes as follows:

Cherry Street Sanitary Intercepting Sewer, Contract Section No. 20.

Vitrified Sewer Pipe.	Vitrified Segmental Blocks
3060′ of 8″	2730′ of 30″
1040′ of 8″	6090′ of 36″
1040′ of 10″	1065′ of 39″
950′ of 12″	750′ of 45″
1764′ of 15″	2330′ of 48″
458′ of 20″	45′ of 60″

With all necessary inlets, manholes, etc., etc.

Grove Avenue Storm Sewer Contract, Section No. 112.

No. 2 D. S. Vitrified Pipe.	Plain Monolithic Concrete.
900′ of 12″	980′ of 64″
700′ of 15″	740′ of 72″
350′ of 18″	390′ of 74″
	5020′ of 76″

With all necessary inlets, manholes, etc., etc.

Cherry Street Storm Sewer, Contract Section No. 113.

No. 2 D. S. Vitrified Pipe.	Plain Monolithic Concrete.
2800′ of 12″	700′ of 24″
750′ of 15″	430′ of 28″
650′ of 18″	490′ of 36″
	1030′ of 44″
	390′ of 50″
	470′ of 52″
	950′ of 54″
	940′ of 58″
	2380′ of 60″
With all necessary inlets, manholes, etc., etc.	1840′ of 68″
	300′ of 74″
	2050′ of 76″

Separate proposals will be required on each of the three sewers, and shall be and remain, regardless of each of the other, subject to acceptance by the City Council for a period of two weeks after the date for receiving said bids, or not being so accepted shall be deemed to have been rejected.

Separate certified checks or cashier's checks on San Antonio banks, equal to 10% of bid must accompany each proposal, made payable to J. Frank Gallagher, City Treasurer, and construction bond of 25% will be required of the successful bidder.

The City of San Antonio reserves the right to reject any and all bids.

For bidders' blanks, specifications and other information address Hans Helland, City Engineer.

FRED FRIES, City Clerk.

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U. S. ENGINEER OFFICE, First District, New York City, Room 710, Army Building, 39 Whitehall Street, New York, N. Y., December 22, 1914.—Sealed proposals for Dredging in Hudson River Channel, N. Y., will be received at this office until 12 M., January 22, 1915, and then publicly opened. Information on application. W. M. BLACK, Col. Engrs.

U. S. ENGINEER OFFICE, Cincinnati, O., Dec. 26, 1914.—Sealed proposals for constructing Lock and Dam No. 33, Ohio River, near Maysville, Ky., will be received at this office until 2 p.m. (Central Time), January 26, 1915, and then publicly opened. Information on application. H. JERVEY, Lt. Col., Engrs.

PROPOSALS FOR CONSTRUCTING CONCRETE STOREHOUSE, Office Const. Quartermaster, U. S. A., Fort Warren, Mass., December 18, 1914.—Sealed proposals in triplicate will be received at this office until 12 o'clock noon, January 18, 1915, and then opened for furnishing all labor and materials for the construction of a Concrete Storehouse at Fort Strong, Mass. Full information furnished upon application. Deposit, certified check, $5.00 required for plans. CAPT. H. T. MATTHEWS, Q.H.C., Const. Quartermaster.

U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., January 12, 1915.—Sealed proposals for dredging in Harlem River, N. Y., will be received at this office until 12 M., February 11, 1915, and then publicly opened. Information on application. W. M. BLACK, Col. Engrs.

U. S. ENGINEER OFFICE, Wheeling, W. Va., December 30, 1914.—Sealed proposals for furnishing and erecting steel lock gates for Dam No. 15, Ohio River, will be received at this office until 11 a.m. (Eastern time), January 30, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

U. S. ENGINEER OFFICE, CHICAGO, ILL., Dec. 19, 1914.—Sealed proposals for reconstructing with piles and timber, part of East Pier at Michigan City Harbor, Ind., will be received at this office until 10 A.M., Jan. 19, 1915, and then publicly opened. Information on application. W. V. JUDSON, Lt.-Col., Engineers.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

GRADUATE MECHANICAL ENGINEER; 25; with 3 years' broad experience handling men and selling building specialty; references. P. W. 702, Eng. News, Chicago.

MECHANICAL ENGINEER, 20 years' experience financial, executive, selling and advertising work, open for engagement. P. W. 674, Eng. News.

MECHANICAL ENGINEER, 34, technical school and 12 years' broad experience, desires position, in or near New York preferred. P. W. 730, Eng. News.

Civil Engineers

ENGINEER, 14 years' experience; surveys on railroad location and construction, irrigation, drainage, United States Geological, subdivisions, flood prevention and sewers. Flitman, 7 West Harrison, Danville, Ill.

CIVIL ENGINEER, 26, technical graduate, 5 years' experience in railroad maintenance and municipal engineering and construction. Good references. P. W. 686, Eng. News, Chicago.

CIVIL ENGINEER, 24, university graduate, with two years' varied building construction experience, will accept anything reasonable; efficient; well recommended. P. W. 690, Eng. News.

CIVIL ENGINEER; technical graduate with business experience; 11 years' engineering experience in general and coal mine surveying, railroad construction, structural detailing and special track design. Would make an able assistant to a consulting engineer. P. W. 691, Eng. News.

CIVIL ENGINEER, technical graduate, with seven years' experience in field and office, desires responsible position. P. W. 692, Eng. News.

GRADUATE ENGINEER, 29, four years' experience railroad mainttenance and construction, two years reinforced concrete and structural steel design. P. W. 739, Eng. News.

GRADUATE CIVIL ENGINEER; 6 years' experience, structural drafting railroad work and factory construction. P. W. 723, Eng. News.

CIVIL ENGINEER; graduate, 12 years' practical experience with consulting engineers and utility companies; water works and other utilities; preliminary investigations, design, construction, appraisals. References. P. W. 726, Eng. News.

EXPERIENCED CONSTRUCTION ENGINEER, good executive manager, superintendent, designer, estimator on bridges, concrete, railway construction; position desired with contractor, engineers or controllers of public utilities; technical graduate; salary reasonable. P. W. 711, Eng. News.

CIVIL ENGINEER; graduate, nine years' experience in building construction, designing, estimating and superintending steel and reinforced concrete work desires connection with contractor. P. W. 728, Eng. News.

CIVIL ENGINEER, 1912; one year experience on highway construction; two years on railroad work. Will start at reasonable salary if good opportunity for advancement is offered. P. W. 729, Eng. News.

CIVIL ENGINEER; 10 years' experience, field and office, desires position; structural or reinforced concrete design and estimates; railroad or municipal. P. W. 670, Eng. News, Chicago.

GRADUATE ENGINEER, 26, married; one year construction, nine months municipal, three years structural; desire position with engineer or contractor. P. W. 716, Eng. News.

CIVIL ENGINEER; good technical education; six years' experience in field, drafting and design, timber, steel and concrete structures (specializing in reinforced concrete), tracks, yards and earthwork, on heavy railroad construction and Panama Canal. P. W. 737, Eng. News.

CIVIL ENGINEER, four years' experience structural steel and reinforced concrete; position with city or county engineer desired; experience desired rather than large salary. P. W. 714, Eng. News, Chicago.

CIVIL ENGINEER, 12 years' experience on large electric-power houses, reservoirs, foundation and railroad construction; moderate salary. P. W. 715, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER, 26, experienced in pavement construction, and structural detailing and design, desires position. P. W. 717, Eng. News.

ENGINEER, 37, with 12 years' experience in design, construction and economies of hydro-electric and water-front developments, also fireproof buildings, desires position of trust and adequate renumeration. P. W. 707, Eng. News, Chicago.

Bridge and Structural

CHIEF DRAFTSMAN, charge 60 men, desires change; age 35; strong personal force; proved executive ability; 14 years' comprehensive experience. P. W. 520, Eng. News.

GRADUATE ENGINEER; designer bridge and structural work, reinforced concrete, railway and transmission line structures; general contracting and building. Experience in office and field. Open for engagement. P. W. 683, Eng. News.

STRUCTURAL DRAFTSMAN, age 24, having some gasoline engine experience also speaks and writes modern Greek fluently. P. W. 676, Eng. News.

STRUCTURAL ENGINEER; Quebec bridge experience; can design detail, check or take charge of work. P. W. 731, Eng. News.

STRUCTURAL ENGINEER; technical graduate; good all around steel man; also thorough knowledge of reinforced concrete. P. W. 732, Eng. News.

STRUCTURAL STEEL DRAFTSMAN; thoroughly experienced in designing detailing and checking; excellent reference; wishes position in New York or vicinity. P. W. 733, Eng. News.

STRUCTURAL ENGINEER; designer, detailer and checker; five years' good experience; technical graduate. P. W. 734, Eng. News.

BRIDGE AND STRUCTURAL ENGINEER; responsible experience with large bridge company in Canada. P. W. 735, Eng. News.

Surveyors

INSTRUMENTMAN, field draftsman or position with contractor; five years' experience railway work, also street railway construction experience; three years estimating, timekeeping and inspecting; A-1 references; location immaterial. P. W. 718, Eng. News, Chicago.

INSTRUMENTMAN, topographer, map draftsman; thorough experience, own instruments; first class. P. W. 720, Eng. News, Chicago.

FIELDMAN, computator, accurate draftsman, fair letterer, graduate engineer, 14 years' steady experience in precise instrument work; large tracts and farm surveys, stadia, triangulation and general field and office work; one year municipal; would like to get on municipal or general engineering work, but will accept any position for which I am qualified with reliable firm having future prospects; salary reasonable; good reference; 35 years old. P. W. 721, Eng. News.

Draftsmen

DRAFTSMAN, designer; steel, general construction, 15 years; experience in charge, immediately available, city. P. W. 669, Eng. News.

Lady desires position as draftsman in engineer's office; salary moderate; location anywhere. P. W. 736, Eng. News, Chicago.

FIRST CLASS structural checker and squadman, twelve years' experience; bridges, buildings, industrial plants, with steel mills and construction companies. Good executive, first class reference. Available, February first or before. P. W. 738, Eng. News.

DRAFTSMAN, designer with broad experience in mechanical and structural lines. Best references. Will go anywhere. P. W. 724, Eng. News.

CONTRACTOR'S ESTIMATOR requires position quick, reliable and accurate. P. W. 741, Eng. News.

Superintendents, Etc.

SUPERINTENDENT of building construction of broad experience, available January 1. References. Anywhere. P. W. 646, Eng. News.

SUPERINTENDENT, ESTIMATOR, 15 years' experience, executive ability, desires responsible position; go anywhere. P. W. 700, Eng. News, Chicago.

AGE, 26; college graduate; 8 years' experience in field and office along mining and steel works construction lines; location immaterial; best references. P. W. 704, Eng. News.

ESTIMATOR TO GENERAL CONTRACTOR; reliable, industrious; graduate C. E.; over 10 years' experience buildings and general engineering, private and public work; good designer and draftsman; reinforced concrete and fireproofing specialist; excellent knowledge of quantities on masonry, carpentry and allied building trades; will be open for engagement Jan. 15. P. W. 701, Eng. News.

GENERAL FOREMAN, 15 years' experience, 10 years on building and repairing of dams and powerhouses, first class on plant layout derricks, orange peel and dragline bucket work; anywhere after Jan. 15. References. P. W. 678, Eng. News, Chicago.

ENGINEER or GENERAL FOREMAN; 4 years in Mexico on hydraulic dam and railroad construction; 3 years on canal and railroad location; at present employed, desires to locate in South America; speaks Spanish. P. W. 680, Eng. News.

MIDDLE AGED MAN, 15 years' practical experience, general contracting, desires responsible position as superintendent and estimator. P. W. 685, Eng. News.

SALES ENGINEER, college graduate, seven years' engineering experience, mechanical and structural steel, wants to get into the selling end on salary or to take agency. P. W. 710, Eng. News, Chicago.

AS CONSTRUCTION FOREMAN or general foreman, Latin-American experience; six years conversant Spanish, Portuguese, English; best references; go anywhere; age 26. P. W. 722, Eng. News.

PRACTICAL CONCRETE SUPERINTENDENT; fifteen years' experience in New York City, all kinds of concrete work, cement paving and cinder concrete fireproofing; experienced with foreign laborers. Good solicitor and estimator. Anywhere. P. W. 725, Eng. News.

SALES ENGINEER; nine years' experience, desires Cleveland connection with building material company. P. W. 727, Eng. News.

CONTRACTORS SUPERINTENDENT; graduate engineer; 4½ years' experience in reinforced concrete and general construction; Baltimore or Philadelphia interview. P. W. 713, Eng. News.

POSITIONS OPEN

YOUNG MAN with good technical education and knowledge of stenography wanted in contractor's office. $50 month. Apply 38 Park Row, N. Y. Room, 1103.

CHIEF DRAFTSMAN, first class, to take charge of department; must have ample experience in making shop drawings for interior marble work, be able to handle force properly and keep actual cost of drawings within estimated allowance. P. 708, Eng. News.

STRUCTURAL DRAFTSMEN—Two detailers, and a chief draftsman capable to assist in designing steel structures; state age, experience, salary expected, married or single. Anthracite Bridge Co., Scranton, Pa.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registratoin fee on demand any time within the first six months when no position is secured.

ENGINEERING MEN in every line for available positions. Applicants and employers write, The Toledo Engineering Agency, Toledo, Ohio.

WANTED

COPIES of Dec. 24, 1914, issue of "Engineering News"; will pay 15c. each and postage. Address Subscription Department, "Engineering News."

Agents and Salesmen

A GRADUATE CIVIL ENGINEER wishes to communicate with reliable manufacturers of high-grade building products wishing to be represented in Montreal. W. 719, Eng. News.

BELGIAN RECONSTRUCTION EXPERT actually head of well established concrete building firm in Brussels wishes to enter into negotiations with reliable contracting firm in view of rebuilding destroyed Belgian cities; A-1 references asked and given. Answer P. O. Drawer 435, Stockholm I, Sweden.

RUSSIAN, technical man, leaving for Russia, wants to represent some American manufacturer or look after his interest there; wide experience and acquaintance in engineering and business world of Russia; five years' American experience in engineering lines; best of references. W. 712, Eng. News.

BUSINESS OPPORTUNITIES

ENGINEER, ten years' general construction experience, wants partner with capital for building concrete and brick roads in Ohio. B. O. 682, Eng. News.

ENGINEER, mechanical and structural experience, with small capital, wants connection with established engineering, contracting or manufacturing firm as partner; Milwaukee or Chicago location preferred. B. O. 709, Eng. News, Chicago.

ENGINEER of established reputation on Pacific Coast desires partner with capital to form corporation for general engineering and contracting; previous experience or technical knowledge and ability as a business getter required; New York City interview. B. O. 742, Eng. News.

FOR SALE

NINE BOUND VOLUMES OF "ENGINEERING NEWS," in first-class condition, from July, 1901, to Dec., 1905, Vols. 46 to 54, inclusive. John W. Ash, 528 Temple Court Bldg., Chattanooga, Tenn.

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

N

ADDRESSES

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CARPENTER & ANDERSON, Union Trust Bldg., Detroit.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW CO., Wm. B., Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
HYATT, C. W., 93 E. Oneida St., Baldwinsville, N. Y.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition. Theo. Smith & Sons Co., Jersey City, N. J.

Steam driven, 3 Laidlaw-Dunn-Gordon duplex 2-stage and 5 Norwalk tandem 2-stage.—NEW RIVER.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

150 H.P. horizontal tubular, Union, Atlas, Erie City, Keeler and West Point. Pressure up to 125 lbs.—NEW RIVER.

40, 50, 60 and 80 H.P. loco. type on skids.—PIPE & C. S. CO.

BUCKETS

One four leaf 1 yd. Orange peel.—PIPE & C. S. CO.

5—¾ cu. yd. standard clam shells.—STALLEY.

1—1 yd. Williams single line clam shell.—BECKWITH.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

2—½ yd. steel hoisting buckets.—HYATT.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

DERRICKS

1 Steel stiff leg, 70' boom; 1 steel guy, 70' boom, 25 tons cap.; 1 steel traveling, 45' boom.—GIVIN.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

1—5 H. P. Mietz & Weiss.—PIPE & C. S. CO.

EXCAVATORS

1 Monighan Drag Line with one and two-yd. bucket in Detroit, Mich.—CARPENTER.

FEED WATER HEATERS

Several types, capacities up to 1200 HP.—NEW RIVER.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

GRAVEL PLANT

[Wanted]

Ladder or dipper dredge—steam shovel—for gravel plant. State price and full particulars. W. 740, Eng. News.

HAMMER

1 No. 6 Arnott Hammer.—HYATT.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33" diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

12 Lidgerwood, Lambert and others. Also one 5 lever Stroudsburg 7x10 cableway engine. PIPE & C. S. CO.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

1—7½ H.P. single drum electric hoist.—BECKWITH.

ONE HUNDRED NINETEEN hoists. Immediate delivery. 3- drum, 7x10, 8¼x10, 9x10, Skeleton or boiler.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

Gurley Lt. Mt. Transit V circ. with guard; reversion tel. level; ex. diag. eye piece; stadia; Ainsworth Solar; Cost $240. Good cond., repair perfect. $175.—R. F. GRAY, Lusk, Wyo.

1 "Sterling" Architects Wye level.—HYATT.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

Baldwin, 14x24, 4-driver, S. T., new this year.—DALLETT

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

9x14 Porter and 10x16 Baldwin.—BRADEN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

[Wanted]

Small, March 1st delivery.—DRILLING CONTRACTING CO., INC., 35 State St., Albany, N. Y.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE.

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day: rare bargain.—LINES FLYNN.

1 Continuous Foote with 10 H.P. d.c. motor direct connected; 3—¾ yd. and 2—½ yd. Ransomes with engines—on skids. Two No. 2½ Smiths with engines—on wheels.—PIPE & C. S. CO.

PILING, SHEET STEEL

5000 pieces Lackawanna and Carnegie.—GRIMSHAW.

[Wanted]

50 lin.ft. good Lackawanna, in pieces, about 25' long.—CHATFIELD & CHATFIELD, Inc., 94 Benedict St., Waterbury, Conn.

PIPE

All sizes. ½" to 18" with perfect threads and couplings. also larger sizes. Pipe cut to sketch. PIPE & C. S. CO.

Contracts to Be Let

Bids received until Feb. 23, 1915.

Columbia River Interstate Bridge

Portland, Oregon.

Sealed proposals will be received by the Columbia River Interstate Bridge Commission on February 23, 1915, at two P.M., in room 201 of Multnomah County Court House, Portland, Oregon, for the furnishing of all materials and performing of all work for the construction of the Columbia River Interstate Bridge and Approaches. The bridge and approaches are for highway and street car traffic and comprise about 5000 linear feet of steel structure and 12,000 linear feet of embankment; including about 9500 tons of steel, about 1,000,000 cubic yards of embankment, and about 29,000 cubic yards of concrete. Contracts will be let under several sections to one or more bidders for a part or for the whole of the work.

Proposals and bids shall be subject to all requirements of the specifications, plans, contract, contractors' bonds, and proposal forms; and shall be made upon blank forms provided in the specifications. The bidder to whom a contract may be awarded shall promptly execute a formal contract and shall furnish a penal bond with good and sufficient sureties satisfactory to the Commissioners in an amount equal to the total contract price, for the faithful performance of said contract and all provisions thereof.

To all bids there shall be attached a certified check of the bidder, certified to by a responsible bank, made payable to Wm. N. Marshall, Secretary, of an amount of ten per cent. of the total bidding price, and the bidder who has a contract awarded to him and who fails promptly and properly to execute said contract, or bond, shall forfeit said check. The said check shall be taken and considered as liquidated damages and not a penalty for failure of such bidder to execute said contract and bond. Upon the execution of said contract and bond by the successful bidder, the said check shall be returned to him. The checks of unsuccessful bidders shall be returned to them after the contract and bond with the successful bidder are duly executed.

The contract will be awarded to the lowest responsible bidder, but the Commission reserves the right to reject any and all bids. Multnomah County provides five-sevenths and Clarke County two-sevenths of the funds for payments.

Plans and specifications are on file in the office of the County Clerk of Multnomah County, Oregon, in the office of the County Clerk of Clarke County, Washington, and in the office of State Commissioner of Highways at Salem, Oregon. Copies of the plans and specifications may be secured from the Secretary of the Interstate Bridge Commission at Vancouver, Washington, or from the Consulting Engineers, Waddell & Harrington, at Kansas City, Missouri, by depositing twenty-five dollars. The amount of the deposit will be refunded upon the return of the plans in good order accompanied by a bid; or one-half the amount of the deposit will be refunded upon the return of the plans in good order without a bid.

WM. N. MARSHALL, Secretary.

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TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., January 5, 1915.—Plans and specifications are now approaching completion for a central heating, lighting and power plant, to be erected in this city under the direction of this office. These plans and specifications will be ready for delivery on or after January 15. Bids may be submitted for the entire work or for any one of the following sections: Power plant building complete, with steel stacks; boilers; generating apparatus; pumping equipment; condensers; coal and ash handling apparatus; steam and water piping; switching gear; tunnels; substation apparatus; etc. Prospective bidders should immediately submit to this office applications for plans and specifications, stating the portions of the work upon which they desire to bid. If it appears that the applicant is in a position to bid on all of the work in any one of the sections of the project, or upon the entire work, the plans and specifications will be forwarded. No plans or specifications will be furnished sub-bidders or others not in a position to submit a bid on all of the work comprised in at least one section. The Department will be able to allow only about 15 days for the preparation of estimates. At the time plans and specifications are forwarded to bidders the date for the opening of bids will be stated, and this date will not be extended. O. WENDEROTH, Supervising Architect.

Bids received until Feb. 2, 1915.

Southerly Portion of Sec. 18—Main Sewer

PASSAIC VALLEY SEWERAGE COMMISSIONERS.

Paterson, N. J.

Notice is hereby given that the Passaic Valley Sewerage Commissioners have designated **Tuesday, the second day of February, nineteen hundred and fifteen, at two o'clock** in the afternoon, as the time when they will meet at their usual place of meeting, Essex Building, Clinton Street, Newark, New Jersey, to receive proposals, in writing, for the construction of the SOUTHERLY PORTION OF SECTION 18 of the MAIN INTERCEPTING SEWER, in the City of Paterson, in the County of Passaic, in New Jersey.

Particulars that may enable Contractors to judge of the character of the work are given below:

PROPOSALS WILL BE RECEIVED FOR THE CONSTRUCTION OF THE SOUTHERLY PORTION OF SECTION 18, IN PATERSON, ALONG ALTERNATE ROUTES, WHICH FOR IDENTIFICATION HAVE BEEN STYLED, AS FOLLOWS: (1) RIVER BANK ROUTE; (2) TUNNEL ROUTE.

All bids will be compared on the basis of the Engineer's Estimate of Quantities of the work to be done, as follows:

ESTIMATE OF QUANTITIES.

(1). RIVER BANK ROUTE:

Item 1.—Earth Excavation and Refilling, in trench, for 65-inch concrete sewer	2,308	Linear Feet.
Item 2.—Excavation in earth, rock or earth and rock together, and refilling, in tunnel, for 65-inch concrete sewer	1,040	Linear Feet.
Item 3.—Rock excavation, in trench	100	Cubic Yards.
Item 4.—Concrete Masonry, with Portland cement mortar, in place, in trench	2,000	Cubic Yards.
Item 5.—Concrete Masonry, with Portland cement mortar, in place, in tunnel	1,200	Cubic Yards.
Item 6.—Brick Masonry, in manholes and elsewhere, laid with Portland cement mortar, including all appurtenant work	100	Cubic Yards.
Item 7.—Steel for concrete reinforcement, in place	1,000	Pounds.
Item 8.—Rip rap, in place	2,000	Long Tons.
Item 9.—Special steel and timber sheeting and shoring between Sta. 17+25 and Sta. 18+05, including all support and protection of N. Y. S. & W. R.R. bridge, etc.		Lump Sum.

(2) TUNNEL ROUTE:

Item 1.—Earth excavation and refilling, in trench, for 65-inch concrete sewer	695	Linear Feet.
Item 2.—Excavation in earth, rock, or earth and rock together and refilling, in tunnel, for 65-inch concrete sewer	2,700	Linear Feet.
Item 3.—Rock excavation, in trench	100	Cubic Yards.
Item 4.—Concrete Masonry, with Portland cement mortar, in place, in trench	600	Cubic Yards.
Item 5.—Concrete Masonry, with Portland cement mortar, in place, in tunnel	3,100	Cubic Yards.
Item 6.—Brick Masonry, in manholes and elsewhere, laid with Portland cement mortar, including all appurtenant work	100	Cubic Yards.
Item 7.—Steel for concrete reinforcement	2,000	Pounds.

Drawings, form of contract and specifications, and blank form for proposals may be obtained at the Commissioners' office from William M. Brown, Chief Engineer.

The Commissioners reserve the right to reject any or all bids.

PASSAIC VALLEY SEWERAGE COMMISSIONERS.
JOHN S. GIBSON, Clerk.
January 5, 1915.

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OFFICE, COMMISSIONERS, District of Columbia, Washington, January 14, 1915.—Sealed proposals will be received at the office of the Secretary of the Board of Commissioners, Room 509, District Building, until 2 o'clock P.M., on Thursday, February 11th, 1915, for reconstructing wharves at municipal fish wharf and market, located on Water street southwest between 11th and 12th streets. Forms of proposals, specifications and necessary information may be obtained from Chief Clerk, Engineer Department, Room 427, District Building, Washington, D. C. A deposit of five dollars ($5.00) for plans will be required. O. P. NEWMAN, F. L. SIDDONS, C. W. KUTZ, Commissioners, D. C.

Bids received until Feb. 2, 1915.

Alterations to Electric Plant

Bath, N. Y.

Sealed proposals for alterations to Electric Plant at the New York State Soldiers & Sailors Home, Bath, N. Y., will be received by Hon. Joseph A. Goulden, President, Board of Trustees, New York State Soldiers & Sailors Home, Bath, N. Y., until February 2, 1915, at eleven o'clock A.M. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of 5% of the amount of bid. The contractor to whom the award is made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 2063. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Soldiers & Sailors Home, Bath, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of Ten Dollars, made payable to the State of New York, which check will be returned when plans and specifications are returned in good condition to Lewis F. Pilcher, State Architect.

WILLIAM H. NICHOLS, Secretary.

Dated Bath, N. Y., January 6, 1915.

* * *

Bids received until Jan. 29, 1915.

Open Well

Bedford Hills, N. Y.

Sealed proposals for New Large Open Well at the New York State Reformatory for Women, Bedford Hills, N. Y., will be received by Hon. James Wood, President of the Board of Managers, New York State Reformatory for Women, Bedford Hills, N. Y., until 2 P.M., January 29, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of 5% of the amount of bid. Contractors to whom the award is made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 2171. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Reformatory for Women, Bedford Hills, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher.

* * *

Bids received until Feb. 19, 1915.

Pumping Station and Equipment

Quincy, Illinois, January, 1915.

Sealed bids will be received until 2 o'clock P.M., February 19th, 1915, at office of Edmund T. Perkins Engineering Company, First Nat'l. Bk. Bldg., Chicago, for furnishing all materials, machinery and labor for erection and installation of an electric pumping station for the South Quincy Drainage and Levee District, Adams County, Illinois. Pumping Station requires construction of Pump House, Substation, Suction and Discharge Bays, laying of about 180 feet of C. I. pipe, hauling and erection of all machinery and wiring for electric machinery and lighting.

Bids for the pumping machinery will be received either as a whole or for each part. The plans call for 2 centrifugal pumps, equipped with chain drive and necessary auxiliaries, a 5 ton traveling crane and 2—200 H.P. motors and auxiliaries and 3—150 K.A. Transformers.

For further information address the Edmund T. Perkins Engineering Company.

The Commissioners reserve the right to reject any or all bids.

WALTER P. MARTINDALE, Secretary.

Bids received until Feb. 4, 1915.

Main Sewer

DEPARTMENT OF PUBLIC WORKS
Office, 216 City Hall

Philadelphia, January 14, 1915.

Sealed Proposals, endorsed "Bids for Main Sewer" and addressed to the undersigned, at Room 216 City Hall, will be received until 12 o'clock, noon, on Thursday, February 4, 1915, for

Schedule A. Gunners Run relief sewer in Indiana street from 3rd street to 12th street. 10 feet diameter brick sewer. Appropriation $200,000.

Plans for the above work will be exhibited in the office of Bureau of Surveys, Philadelphia.

Specifications and blank forms upon which bids must be made, will be furnished upon applications to the Chief Engineer, Room 416 City Hall.

Bidders must be skilled and regularly engaged in the class of work bid for.

Bids will be opened and read in Room 225 City Hall, at noon, on date above mentioned.

No bid will be considered unless accompanied by a certificate from the City Solicitor, that the provisions of an ordiance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81, West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city.

M. L. COOKE, Director.

* * *

Bids received until Feb. 20, 1915.

Twenty-Inch Water Main

Middletown, N. Y.

Sealed proposals indorsed "Proposals for laying twenty inch cast iron water main" will be received at the office of the Commissioner of Public Safety at the City Hall, Middletown, N. Y., until 4 P.M. on Saturday, February 20th, 1915, when they will be publicly opened and read.

Proposals shall be accompanied by a certified check payable to the order of the Treasurer of the City of Middletown, N. Y., in the sum of Five Hundred Dollars. Approximate quantities are as follows:

A. Chopping, clearing and draining.
B. 2,510 lin.ft. of trenching and refilling.
C. 1,600 lin.ft. of deep trenching and refilling.
D. 1,890 lin.ft. of grading and embankment over pipe.
E. 6,000 lin.ft. of laying, jointing and caulking 20" pipe.
F. All testing pipes under pressure.

The right is reserved to reject any or all proposals or bids. Bond in the amount of not less than 50% of the contract price will be required for the proper performance of the contract. Plans and specifications can be obtained at the office of the Commissioner of Public Safety, No. 15 City Hall, Middletown, N. Y.

J. C. DEGNAN,
Commissioner of Public Safety.

* * *

Bids received until Jan. 29, 1915.

Street Signs

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Friday, January 29th, 1915, at 12 o'clock, Noon, for furnishing all labor and materials and making complete and delivering, ready to put in place, F.O.B. cars, Wilkes-Barre, Penn., two hundred (200) more or less four-way street signs together with all necessary fittings and four hundred (400) more or less single street signs, such as are fastened to buildings. Each proposal to be accompanied by a certified bank check of the bidder in the sum of $100.00 conditioned upon the fulfillment of the contract by the bidder to whom the same is awarded in accordance to the terms of the contract to be entered into. Bids not accompanied by checks will not be considered. Proposals to be endorsed, "Proposals for Street Signs" and addressed to Fred H. Gates, City Clerk. The City Council reserves the right to reject any or all bids received.

CHARLES N. LOVELAND, Superintendent,
Department of Streets and Public Improvements.

Bids received until Feb. 15, 1915.

Concrete Reservoir

Tampa, Fla.

Sealed proposals will be received, until twelve o'clock noon, February 15th, 1915, at the office of the Tampa Water Works Company, Tampa, Florida, addressed to Chester R. McFarland, General Manager, for a reinforced concrete reservoir about 206 feet long by about 125 feet wide by about 20 feet deep, in accordance with plans and specifications to be furnished by the said Company. A deposit of twenty-five dollars will be required for a copy of the above mentioned plans and specifications. Each bid must be accompanied by a certified check for twenty-five hundred dollars ($2,500), on a National Bank of Tampa, Fla., or Philadelphia, Pa., and made payable to the order of the Tampa Water Works Co. The successful bidder will be required to file with the Tampa Water Works Co., to insure the faithful performance of the contract, a surety bond acceptable to the Water Works Co. for fifty per cent. of the contract price. The Tampa Water Works Co. reserves the right to reject any or all bids.

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Bids received until Feb. 9, 1915.

Sedimentation Basin

Philadelphia, Pa.

Bids will be received at Room 216 City Hall, Philadelphia, and opened February 9, 1915, at noon, in Room 225 City Hall, Philadelphia, for a Sedimentation Basin at Torresdale filters. Bidders will be required to file a bond for $500, and an additional surety company guarantee with bid. Plans and specifications can be had at Room 701 City Hall. A deposit of $10.00 is required for plans and specifications.

⁂

Bids received until Feb. 11, 1915.

Sewer and Paving Work

Cambridge, Ohio.

Sealed Bids will be received by the undersigned until 12 o'clock noon Feb. 11, 1915, for the construction of Sewer and Street Paving (Brick) Work. Estimated amount of work approx. $47,000.00. Specifications and Blanks on request accompanied by 20 cents to cover postage and mailing.

J. B. CLARK,
Director of Public Service.

⁂

U. S. ENGINEER OFFICE, 305 Southern Building, Washington, D. C., Jan. 18, 1915.—Sealed proposals for substitution of through span for deck span in the Pennsylvania Avenue Bridge across Anacostia River, Washington, D. C., will be received at this office until Feb. 17, 1915, and then publicly opened. Information on application. H. C. NEWCOMER, Lt. Col., Engrs.

U. S. ENGR. OFFICE, Boston, Mass., Jan. 18, 1915.—Sealed proposals for dredging in Chelsea Creek, Boston Harbor, Mass., will be received here until 12 M., Feb. 18, 1915, and then publicly opened. Information on application. W. E. CRAIGHILL, Lieut. Col., Engrs.

Bids received until Jan. 30, 1915.

Laundry Building, Power House, etc.

Letchworth Village, Thiells, N. Y.

Sealed proposals for Laundry Building, Construction, Heating, Plumbing, Electric Work and Laundry Machinery; for the Power House Construction, Heating Plant and Underground Piping, Plumbing and Drainage and Electric Work at the Letchworth Village, Thiells, N. Y., will be received by the Hon. Frank A. Vanderlip, President, Board of Managers, Letchworth Village, 55 Wall Street, Room 215, New York City, until 11 A.M. on Saturday, January 30, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of 5% of the amount of bid for Construction, Heating, Plumbing and Electric Work of the Laundry Building, in the sum of $450 for Laundry Machinery, in the sum of $1300 for the Construction of Power House, in the sum of 5% of the amount of bid of Heating Plant, Underground Piping, in the sum of $60 for Plumbing and Drainage, in the sum of $25 for the Electric Work. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specification Nos. 1838, 2109, 2110, 2111, 2139, 2162, 2168, 2186, 2169 and 2170. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at Letchworth Village, Thiells, N. Y.; at the New York office of the Department of Architecture, Rooom 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice and upon the deposit of a certified check in the sum of $10.00, made payable to the State of New York, for each division of the work, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

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U. S. ENGINEER OFFICE, Cincinnati, O., Dec. 26, 1914.—Sealed proposals for constructing Lock and Dam No. 33, Ohio River, near Maysville, Ky., will be received at this office until 2 p.m. (Central Time), January 26, 1915, and then publicly opened. Information on application. H. JERVEY, Lt. Col., Engrs.

U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., January 12, 1915.—Sealed proposals for dredging in Harlem River, N. Y., will be received at this office until 12 M., February 11, 1915, and then publicly opened. Information on application. W. M. BLACK, Col. Engrs.

U. S. ENGINEER OFFICE, Wheeling, W. Va., December 30, 1914.—Sealed proposals for furnishing and erecting steel lock gates for Dam No. 15, Ohio River, will be received at this office until 11 a.m. (Eastern time), January 30, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similar literature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 20 years' experience financial, executive, selling and advertising work, open for engagement. P. W. 674, Eng. News.

MECHANICAL ENGINEER, 34, technical school and 12 years' broad experience, desires position, in or near New York preferred. P. W. 730, Eng. News.

Civil Engineers

ENGINEER, 14 years' experience; surveys on railroad location and construction, irrigation, drainage, United States Geological, subdivisions, flood prevention and sewers. Flitman, 7 West Harrison, Danville, Ill.

CIVIL ENGINEER, 26, technical graduate, 5 years' experience in railroad maintenance and municipal engineering and construction. Good references. P. W. 686, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; 6 years' experience, structural drafting railroad work and factory construction. P. W. 723, Eng. News.

CIVIL ENGINEER; technical graduate with business experience; 11 years' engineering experience in general and coal mine surveying, railroad construction, structural detailing and special track design. Would make an able assistant to a consulting engineer. P. W. 691, Eng. News.

CIVIL ENGINEER; graduate, 12 years' practical experience with consulting engineers and utility companies; water works and other utilities; preliminary investigations, design, construction, appraisals. References. P. W. 726, Eng. News.

CIVIL ENGINEER; graduate, nine years' experience in building construction, designing, estimating and superintending steel and reinforced concrete work desires connection with contractor. P. W. 728, Eng. News.

CIVIL ENGINEER, four years' experience structural steel and reinforced concrete; position with city or county engineer desired; experience desired rather than large salary. P. W. 714, Eng. News, Chicago.

CIVIL ENGINEER, 12 years' experience on large electric-power houses, reservoirs, foundation and railroad construction; moderate salary. P. W. 715, Eng. News, Chicago.

CIVIL ENGINEER, 24, university graduate, with two years' varied building construction experience, will accept anything reasonable; efficient; well recommended. P. W. 764, Eng. News.

CIVIL ENGINEER! good technical education; six years' experience in field, drafting and design, timber, steel and concrete structures (specializing in reinforced concrete); tracks, yards and earthwork; on heavy railroad construction and Panama Canal. P. W. 766, Eng. News.

1913 GRADUATE wants job in office or field where he can get experience. One year in bridge office; six months in field on reinforced concrete. Go anywhere. P. W. 763, Eng. News.

GRADUATE CIVIL ENGINEER, four years' of varied experience, in office and field also in the tropics desires position in any capacity irrespective of salary and location. Can handle men. P. W. 753, Eng. News.

Bridge and Structural

CHIEF DRAFTSMAN, charge 60 men, desires change; age 35; strong personal force; proved executive ability; 14 years' comprehensive experience. P. W. 520, Eng. News.

GRADUATE ENGINEER; designer bridge and structural work, reinforced concrete, railway and transmission line structures; general contracting and building. Experience in office and field. Open for engagement. P. W. 683, Eng. News.

STRUCTURAL ENGINEER; age. 33; university C. E.; eight years' experience designing steel and reinforced concrete structures. P. W. 750, Eng. News.

BRIDGE AND STRUCTURAL ENGINEER with long experience holding responsible positions wishes to change location. P. W. 751, Eng. News.

STRUCTURAL ENGINEER; Quebec bridge experience; can design detail, check or take charge of work. P. W. 757, Eng. News.

STRUCTURAL ENGINEER; technical graduate; good all around steel man; also thorough knowledge of reinforced concrete. P. W. 758, Eng. News.

STRUCTURAL STEEL DRAFTSMAN; thoroughly experienced in designing detailing and checking; excellent reference; wishes position in New York or vicinity. P. W. 759, Eng. News.

STRUCTURAL ENGINEER; designer, detailer and checker; five years' good experience; technical graduate. P. W. 760, Eng. News.

BRIDGE AND STRUCTURAL ENGINEER; responsible experience with large bridge company in Canada. P. W. 761, Eng. News.

Surveyors

INSTRUMENTMAN, topographer, map draftsman; thorough experience, own instruments; first class. P. W. 720, Eng. News, Chicago.

FIELDMAN, computator, accurate draftsman, fair letterer, graduate engineer, 14 years' steady experience in precise instrument work; large tracts and farm surveys, stadia, triangulation and general field and office work; one year municipal; would like to get on municipal or general engineering work, but will accept any position for which I am qualified with reliable firm having future prospects; salary reasonable; good reference; 35 years old. P. W. 721, Eng. News.

RODMAN or CONCRETE INSPECTOR—Age 22; married, slight experience on civil and mining corps. Three years on building construction. Now employed. P. W. 746, Eng. News.

INSTRUMENT MAN, age 26, six years' experience in field, office and construction work. Position in the East preferred. P. W. 748, Eng. News.

Draftsmen

FIRST CLASS structural checker and squadman, twelve years' experience; bridges, buildings, industrial plants, with steel mills and construction companies. Good executive, first class reference. Available, February first or before. P. W. 738, Eng. News.

EXPERT DRAFTSMAN and designer, steel work and machinery 15 years, local position wanted. P. W. 754, Eng. News.

DRAFTSMAN, 5 years' experience, structural, detailing, designing, checking, technical; steady or temporary. P. W. 762, Eng. News.

Superintendents, Etc.

SUPERINTENDENT of building construction of broad experience, available January 1. References. Anywhere. P. W. 646, Eng. News.

SALES ENGINEER, college graduate, seven years' engineering experience, mechanical and structural steel, wants to get into the selling end on salary or to take agency. P. W. 710, Eng. News, Chicago.

AS CONSTRUCTION FOREMAN or general foreman, Latin-American experience; six years conversant Spanish, Portuguese, English; best references; go anywhere; age 26. P. W. 722, Eng. News.

SALES ENGINEER; nine years' experience, desires Cleveland connection with building material company. P. W. 727, Eng. News.

CONTRACTORS SUPERINTENDENT; graduate engineer; 4½ years' experience in reinforced concrete and general construction; Baltimore or Philadelphia interview. P. W. 713, Eng. News.

EXPERIENCED TIMEKEEPER and office man desires position at once. Will go anywhere. Best of references. Box 163, Richmond, Va.

PRODUCTION AND EFFICIENCY ENGINEER or superintendent. Engineer with good record in organizing, systematizing, and cost reduction in design and manufacture desires position where these abilities may be applied. High technical training and first class designer. Experienced in all departments. Location immaterial. P. W. 747, Eng. News.

CONTRACTORS SUPERINTENDENT; graduate engineer; six years' experience, dredging, land reclamation, river and harbor improvements, canal and railroad construction. References. P. W. 745, Eng. News.

SECRETARY—Office man, stenographer, secretary, with good command of Spanish, wants position with company operating in Central or South America. Six years' experience on construction, railroad, and steel work. P. W. 744, Eng. News.

WANT TO FINANCE my assets consisting of good general knowledge of building construction, ability to write crisp, snappy English, personality and ambition. Canadian, 31, technical graduate. P. W. 741, Eng. News.

COMMERCIAL PHOTOGRAPHER, with technical education, experienced on construction work, machinery, etc., desires position as official photographer in central states. Box 202, 1421 Arch St., Philadelphia, Penn.

CONSULTING ENGINEER and SALESMAN; 5 years' traveling experience designing, introducing, selling and contracting for construction materials, among state, city and private architects, engieers and contractors throughout eastern half of the United States; open for engagement. P. W. 768, Eng. News.

FIRST CLASS CARPENTER or concrete boss desires change. First class references if required. Locality immaterial. P. W. 752, Eng. News.

GRADUATE ENGINEER, 26, experienced in street and highway work, also structural detailing and design. P. W. 765, Eng. News.

ESTIMATOR, general building construction, graduate civil engineer, 10 years' experience, reliable, hustler, wants change, New York location. P. W. 769, Eng. News.

POSITIONS OPEN

WANTED, salesman to handle high grade building specialty. Acquaintance with architects and contractors very essential. State experience and age. P. 742, Eng. News, Chicago.

MAN to take charge of party in land subdivision; must be capable of making all computations and finished map; one who can furnish own surveying outfit preferred; state age, experience, references and salary expected. P. 749, Eng. News.

ONE FIRST CLASS, all around building superintendent. Must have experience in handling large office building work as well as general industrial work. Nothing but strictly sober men of large experience need apply. P. 755, Eng. News, Chicago.

YOUNG MAN of building experience and good education as assistant building superintendent. Must have had actual building experience and be strictly sober. P. 756, Eng. News, Chicago.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

SUPERINTENDENT for malleable iron plant, also general foreman for large motor shop, building motors and generators. Only high grade men need apply. The Toledo Engineering Agency, Toledo, Ohio.

ENGINEER of established reputation on Pacific Coast desires partner with capital to form corporation for general engineering and contracting; previous experience or technical knowledge and ability as a business getter required; New York City interview. B. O. 742, Eng. News.

FOR SALE

NINE BOUND VOLUMES OF "ENGINEERING NEWS," in first-class condition, from July, 1901, to Dec., 1905, Vols. 46 to 54, inclusive. John W. Ash, 528 Temple Court Bldg., Chattanooga, Tenn.

BRANDIS TRANSIT, tape, rods, universal drafting machine, reference books, bound volumes Eng. News, etc. First class condition. F. S. 743, Eng. News.

NEATLY BOUND volumes, Engineering News, 1902, 1903, 1904. George Champe, 610 Nasby Building, Toledo, Ohio.

ENGINEERING NEWS, 1892 to 1907; 1899 to 1904 inclusive, bound in cloth, half morocco. F. R. Davis. Goffstown, N. H.

WANTED

BELGIAN RECONSTRUCTION EXPERT actually head of well established concrete building firm in Brussels wishes to enter into negotiations with reliable contracting firm in view of rebuilding destroyed Belgian cities; A-1 references asked and given. Answer P. O. Drawer 435, Stockholm I, Sweden.

YOUNG MAN desires typewriting, stenographic or other work evenings. Familiar with structural terms. W. 767, Eng. News.

Agents and Salesmen

A GRADUATE CIVIL ENGINEER wishes to communicate with reliable manufacturers of high-grade building products wishing to be represented in Montreal. W. 719, Eng. News.

BUSINESS OPPORTUNITIES

ENGINEER, mechanical and structural experience, with small capital, wants connection with established engineering, contracting or manufacturing firm, as partner; Milwaukee or Chicago location preferred. B. O. 709, Eng. News, Chicago.

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

N

ADDRESSES

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.

BRADEN, James C., 26 Cortlandt St., N. Y. City.

CARPENTER & ANDERSON, Union Trust Bldg., Detroit.

CONTRACTORS' Service Co., 50 Church St., N. Y. City.

DALLETT & CO., Harrison Bldg., Phila., Pa.

DOUGLAS, Geo. B., 29 Broadway, New York.

GIVIN Co., Herbert, 30 Church St., N. Y. City.

GRIMSHAW CO., Wm. B., Drexel Bldg., Phila., Pa.

HITNER'S Sons Co., Henry A., Philadelphia, Pa.

HOISTING Engine Sales Co., 120 West 32d St., New York.

HYATT, C. W., 93 E. Oneida St., Baldwinsville, N. Y.

LINES FLYNN Co., Inc., 30 Church St., N. Y. City.

MARINE Metal and Supply Co., 167 South St., N. Y. City.

NEW RIVER Co., The, Macdonald, W. Va.

PARKER-Washington Co., Cham. of Com., Chicago, Ill.

PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.

SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.

SOUTHERN Iron & Equipment Co., Atlanta, Ga.

STALLEY, G. T., Box 390, Cleveland, Ohio.

WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition. Theo. Smith & Sons Co., Jersey City, N. J.

Steam driven, 3 Laidlaw-Dunn-Gordon duplex 2-stage and 5 Norwalk tandem 2-stage.—NEW RIVER.

2 Ingersoll-Sargent, 807 cu. ft. per min.—PARKER.

BARGES

[Wanted]

Deck barge about 34'x80'x6' steel or wood, in first class condition. Mail full particulars and location to HENRY BICKEL CO., Louisville, Ky.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

150 H.P. horizontal tubular, Union, Atlas, Erie City, Keeler and West Point. Pressure up to 125 lbs.—NEW RIVER.

40, 50, 60 and 80 H.P. loco. type on skids.—PIPE & C. S. CO.

1 80-hp. and 1 100-hp. Erie City Economics.—PARKER.

BUCKETS

One four leaf 1 yd. Orange peel.—PIPE & C. S. CO.

5—¾ cu. yd. standard clam shells.—STALLEY.

1—1 yd. Williams single line clam shell.—BECKWITH.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

2—½ yd. steel hoisting buckets.—HYATT.

1 1¼-cu. yd. Hayward Orange Peel and 1 1½ cu.yd. McMyler Clamshell.—PARKER.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed —GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

2 No. 4 Gates, Style 25 and 1 No. 5 Gates, Screens and Elevator.—PARKER.

DERRICKS

1 Steel stiff leg, 70' boom; 1 steel guy, 70' boom, 25 tons cap.; 1 steel traveling, 45' boom.—GIVIN.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

1—5 H. P. Mietz & Weiss.—PIPE & C. S. CO.

ENGINES, STEAM

1 Troy Vert. Engine cent. crank 17 hp.; 1 Atlas Horizontal Engine cent. crank 30 hp.; 1 Nagle Horizontal Engine Cent. crank 40 hp.—PARKER.

EXCAVATORS

1 Monighan Drag Line with one and two-yd. bucket in Detroit, Mich.—CARPENTER.

FEED WATER HEATERS

Several types, capacities up to 1200 HP.—NEW RIVER.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

GENERATORS

1 Siemens & Halske Generator, 125-v. 90-amp.—PARKER.

HAMMER

1 No. 6 Arnott Hammer.—HYATT.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33" diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

12 Lidgerwood, Lambert and others. Also one 5 lever Stroudsburg 7x10 cableway engine. PIPE & C. S. CO.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

1—7½ H.P. single drum electric hoist.—BECKWITH.

ONE HUNDRED FIFTY hoists. Immediate delivery. 3- drum, 7x10, 8¼x10, 9x10, Skeleton or boiler.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

1 "Sterling" Architects Wye level.—HYATT.

$115 Gurley Y Level, nearly new—$80. $165 Gurley No. 20 Explorers' Transit, nearly new—$118. Guaranteed. 99 others. Rentals, repairs, supplies. ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., **20-ton, 12x18, saddle tank.**—DOUGLAS.

50 locomotives, **Switch, Mogul, Consolidation, Ten Wheel** and Saddle Tank types.—SOUTHERN.

Baldwin, 14x24, 4-driver, S. T., new this year.—DALLETT

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

9x14 Porter and 10x16 Baldwin.—BRADEN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 Continuous Foote with 10 H.P. d.c. motor direct connected; 3—¾ yd. and 2—½ yd. Ransomes with engines—on skids. Two No. 2½ Smiths with engines—on wheels.—PIPE & C. S. CO.

2 No. 5 and 1 2½ Smith Concrete Mixers.—PARKER.

PILING, SHEET STEEL

5000 pieces Lackawanna and Carnegie.—GRIMSHAW.

[Wanted]

50 lin.ft. good Lackawanna, in pieces, about 25' long.—CHATFIELD & CHATFIELD, Inc., 94 Benedict St., Waterbury, Conn.

PIPE

All sizes. ½" to 18" with perfect threads and couplings also larger sizes. Pipe cut to sketch. PIPE & C. S. CO.

PIPE MACHINES

Saunders, Williams, Stover; from ¾ to 8".—PIPE & C. S. CO

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

1 No. 8, 1 No. 9, 1 No. 10 Cameron.—MARINE.

2 Davidson Simplex 9x9x11.—MARINE.

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE.

1 No. 486 Emerson, 4" suc., 3" dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

2 Worthington 1,500,000 gal. Horizontal, Duplex Power, 14" diameter, 10" stroke.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

3 Underwriters fire pumps cheap.—WHITNEY.

RAILS

24" and 20" industrial rail and turntables.—PIPE & C. S. CO

ROAD ROLLERS

Tandem paving in A1 condition. Write F. S. 666, Eng. News.

[Wanted]

10-ton macadam. Price must be right. Send description to W. 667, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "0" traction, modern, high number.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

STEEL SHEETING

124 pcs. 15' 15" 33 lb. and 782 pcs. 22' 15" 33 lb. channels with Nye locks in Detroit and Grand Rapids.—CARPENTER.

TRAVELING CRANES

1 15-ton electric 36' 6" span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

TURBINES

2 Houston 44" Vertical, with beveled gears, shafting, etc. —WATER & LIGHT COMMISSION, Fergus Falls, Minn.

Geneva, N. Y.—Bids will be received about Feb. 1 by H. Sweeney & Son for the construction of a 50x150-ft. theater. Estimated cost, $50,000 Leon Lempert & Son, Rochester, is Arch.

Kingston, N. Y.—Plans are being prepared by Gerald Betz for the construction of a two-story, 109x150-ft. theater for Lew Fisher Estimated cost, $60,000

+★Lockport, N. Y.—(Official)—The contract for the improvement of the Lockport Union School has been awarded to H J Menzelberger, Phillipsburg, N. J., at $54,589. Noted Nov. 5.

New York, N. Y.—(Borough of Brooklyn)—Plans have been prepared by Parfitt Bros., Arch., 26 Court St., for the construction of a seven-story store and loft building at Fulton and Bond St , for Jason S. Bailey, 615 Washington St., Boston, Mass Estimated cost is $100,000.

New York, N. Y.—(Borough of Brooklyn)—Slee & Bryson, 154 Montague St., are preparing plans for the construction of a four-story, 60x100-ft. apartment house, on Prospect Pl., near New York Ave., for W. B. Greenman, 350 Fulton St. Estimated cost, $60,000

New York, N. Y.—(Borough of Bronx)—Plans are being prepared by Harry T. Howell, 148th St. and Third Ave., for the construction of two five-story, 50x90-ft. and 50x88-ft. apartment houses at Home St. and Vyse Ave., for the Vyse Building Co , 967 East 165th St. The estimated cost is $117,000.

New York, N. Y.—(Borough of Bronx)—Moore & Landsiedel, Arch., 148th St. and Third Ave., are preparing plans for the construction of a five-story, 112x95-ft. apartment house on Albany, Crescent and Bailey Ave., for Michael J. Martin, 1123 Broadway. Estimated cost, $75,000.

New York, N. Y.—(Borough of Bronx)—Plans have been prepared by M. W. Del Gaudio, 401 East Tremont Ave., for the construction of a five-story, 69x79-ft. apartment house at Crescent and Hughes Ave., for the Fargo Construction Co., 2409 Beaumont Ave Estimated cost is $40,000.

New York, N. Y.—(Borough of Manhattan)—Brokaw Bros., Astor Pl. and Fourth Ave., plan to construct an 11-story building on Broadway between 41st and 42d St.

New York, N. Y.—(Borough of Manhattan)—Plans are being prepared by Warren & Wetmore, Arch., for the construction of an 11-story, 75x100-ft. building at Fifth Ave. and 37th St. for the Murray Hill Investing Co. Estimated cost, $300,000.

New York, N. Y.—(Borough of Richmond)—Plans are being prepared by Frederick S. Metcalf, Arch., 143 North Ave., Plainfield, N. J., for the construction of a two-story, 130x190-ft. parochial school at West New Brighton, S. I., for the Church of the Sacred Heart. Rev. W. C. Poole is Pastor. Estimated cost, $100,000.

Belleville, N. J.—The following bids were received Jan. 19 by the Board of Education for constructing the proposed school at Washington Ave. and Holmes St.: Essex Construction Co., Newark, $92,990; L. J. Rice, New York, $98,000; E. M. Waldron & Co., $94,035; Frederick Fatzler & Co., Inc., Newark, $95,987; John J. Egan & Co., Jersey City, $99,800 Noted Jan. 7.

Hackettstown, N. J.—The following bids were received by the Board of Education Jan. 21, for the construction of the proposed school: Butz & Clader, Allentown, Penn., $57,991; W. A. Richman, Moorestown, N. J., $59,000; Thomas Smith & Sons, $59,800; Lawrence J. Rice, New York, N. Y., $59,850; W. A. Stein & Co., Allentown, Penn., $60,345; A P. Clark Co., Montclair, N. J., $63,088; H. T. Winzelberger, Phillipsburg, N. J., $63,145; Nallo Bros., Netcong, N. J., $63,800; A. M. Barrows Construction Co., New York, N. Y., $64,794; W. C. Eilenberger, $65,000; E. T. Albott Co., New York, N. Y., $68,900; George W. Smith, Hackettstown, N. J., $12,350; Charles Cowen Co., New York, N. Y., $79,650; Tabbott Kleinert, $81,986. Noted Jan. 14.

Kearney, N. J.—Plans are being prepared by Henry Baechlin, Arch., 665 Broad St., Newark, for the construction of a Masonic Temple for Copestone Lodge No. 147, F. and A. M. Estimated cost, $65,000.

New Brunswick, N. J.—Bids will be received until Feb. 15 by the Board of Education for the construction of a two-story, 180x190-ft. high school at Lexington and Delaware Ave. Estimated cost, $165,000. Alexander Merchant, 363 George St., is Arch. Noted Dec. 3.

Trenton, N. J.—Bids will be received for the construction of a two-story building at the Home for Indigents. Estimated cost, $50,000. M. Haupt is Arch.

Braddock, Penn.—Bids will be received until Feb. 1 by Charles W. Milligan, Arch., Wood and Ross St., Wilkinsburg, for constructing a four-story, 40x150-ft. addition to the Braddock General Hospital. Estimated cost, $75,000.

+Easton, Penn.—The contract for the construction of a building for St. Joseph's Catholic Church, South Side, has been awarded to A. A. BECHTEL. Estimated cost, $80,000.

Philadelphia, Penn.—Bids will be received about Mar. 1 for the construction of a four-story, 128x159-ft. apartment house at 41st and Baltimore Ave. Estimated cost, $200,000. Clinton & Russell, New York, N. Y., is Arch.

+Philadelphia, Penn.—The Department of Public Works has awarded the contract for constructing a one-story, 40x120-ft. home for nurses, a 60x64-ft. observation building and a 60x270-ft. scarlet fever ward, at Second and Luzerne St., to P. J. HURLEY 1233 Cherry St., at $53,928, $74,585 and $27,000, respectively.

Wilmington, Del.—Bids will be received about Mar. 1 by the Board of Education for the construction of a three-story, 88x182-ft. school. Estimated cost, $140,000. A. Edward Rhodes, 9 Masonic Temple, is Arch. Noted Jan. 21

Charlotte, N. C.—E. Reid Russell, Asheville, N. C., plans to reconstruct the building at 18 West Fifth St., recently destroyed by fire with a loss of $75,000.

Vivian, La.—The lowest bid received for constructing a high school for Caddo Parish was that of Jones & Harrington, Hot Springs, Ark., at $64,895. Edward F. Neild, Shreveport, is Arch. Noted Dec. 24.

Akron, Ohio—Plans are being prepared by M. E. Harpster, Arch., for the construction of an armory. The estimated cost is $60,000.

Canton, Ohio—(Official)—George F. Hammond, Arch., 4220 Prospect St., Cleveland, writes that bids will be received about Mar. 1 for the construction of the Central High School. Noted Jan. 21.

Cleveland, Ohio—(Official)—Bids will be received about Mar. 1 by Richard Irvin, Arch. and Engr., Union Bank Bldg., Pittsburgh, Penn., for the construction of the Daylight Bldg., for Harry J. Schlosser, Erie, Penn. Estimated cost, $100,000. Noted Jan. 21.

Steubenville, Ohio—Harry Low and Frank Demetros plan to construct a three-story, 49x180-ft. theater at Market and Fifth St. The estimated cost is $50,000.

+Greencastle, Ind.—(Official)—G. R. Grose, Pres., De Pauw University, writes that R. P. DAGGETT & Co., Indianapolis, has been awarded the contract for the construction of the $100,000 gymnasium. Noted Oct. 8, Dec. 3 and Jan. 21.

Indianapolis, Ind.—(Official)—McMahon, Ernest & Co., State Life Bldg., will soon construct a 10-story, 66x90-ft. hotel at Washington and Senate Ave. Estimated cost, $250,000. Wilbur T. Mills & Co., Columbus, Ohio, is Arch.

Indianapolis, Ind.—The Washington & Meridian Realty Co., recently incorporated, plans to construct a 10-story, 34x120-ft. building at Washington and Meridian St. The estimated cost is $255,000. Vonnegut & Bohn, 610 Indiana Trust Bldg., is Arch.

Detroit, Mich.—Tentative plans have been prepared by Edward C. Van Leyen and Edward A. Schilling, Archs., 1115 Union Trust Bldg., for the construction of a clubhouse at Cass Ave. and Lafayette Blvd., for the Detroit Lodge of Elks. The estimated cost is $250,000.

Chicago, Ill.—Press reports state that a site has been secured on 12th St. for the proposed Marshall Field Museum of Natural History. Construction will be begun in the spring. The estimated cost is $5,000,000. Stanley Field is Pres., Museum Com.

Madison, Wis.—(Official)—The lowest bid received for the construction of the Soils Bldg. for the University of Wisconsin was that of T. C. McCarthy, at $49,249. M. E. McCaffrey is Secy. of University. Noted Dec. 24.

+Oshkosh, Wis.—The general contract for the construction of the three-story high school has been awarded to C. R. MEYER & SONS CO., at $114,837. Noted Oct. 22, Dec. 31 and Jan. 21.

Racine, Wis.—Bids will be received until Feb. 2 by Guilbert & Funston, Engrs., for the construction of the four-story, 80x160-ft. Y. M. C. A. building. The estimated cost is $100,000. Noted Sept. 3 and Oct. 8.

Brooklyn, Iowa—(Official)—Bids will be received about Mar. 1 by Reimer & Herdin, Arch., Marshalltown, for the construction of a hotel. Estimated cost, $38,000. Noted Jan. 14.

Cedar Rapids, Iowa—L. W. Anderson, Masonic Temple Bldg., is interested in a company now being organized to construct a fireproof hotel. Estimated cost, $500,000.

East Des Moines, Iowa—(Des Moines post office)—The Chicago, Rock Island & Pacific Ry. contemplates the construction of a terminal. The estimated cost is $1,000,000. C. A. Morse, Chicago, Ill., is Ch. Engr.

Sioux City, Iowa—The Directors of Morningside College plan to construct a building replacing the conservatory of music, recently destroyed by fire. Estimated cost, $45,000. Alfred E. Craig, D. D., is Pres.

St. Louis, Mo.—The Woodmen of the World plan the construction of a three-story, 100x150-ft. building. The estimated cost is $125,000. Albert F. H. Seelig is Arch.

Austin, Tex.—(Official)—The construction of a building for the First Methodist Church will not be started for about a year. Estimated cost, $100,000. H. W. Knickerbocker is Pastor. Noted Jan. 7.

Fort Worth, Tex.—The Commissioners' Court of Tarrant County has retained Sanguinet & Staats, Arch., to prepare plans for the construction of a jail. Estimated cost, $300,000. Noted Nov. 19.

Denver, Colo.—Liebhardt Bros. have been granted a permit to construct a two-story office building at 16th and Welton St. Estimated cost, $42,000.

+Seattle, Wash.—W. T. BUTLER CONTRACTING CO., Central Bldg., has been awarded the contract for the construction of a five-story, 60x108-ft. addition to the Fischer Bldg. Estimated cost is $85,000. Bebb & Gould, Denny Bldg., is Arch.

Walla Walla, Wash.—(Official)—Osterman & Siebert, Arch., advises us that plans will be ready for figures about Mar. 1 for the construction of a courthouse. Noted Oct. 23 and Nov. 6, 1913, and Jan. 7, 1915.

+Dixon, Calif.—The Board of School Trustees has awarded the contract for the construction of a high school building to BOYD, KERR & McLEAN, San Francisco, at $56,708. Noted Nov. 19.

Fresno, Calif.—Bids will be received until noon, Feb. 1, by W. F. McClure, State Engr., Sacramento, for the construction of the State Normal School. The estimated cost is $350,000.

+Richmond, Calif.—The contract for the construction of the Grant School on Clinton Ave. has been awarded to L. OVERRA. The estimated cost is $50,000.

Sacramento, Calif.—Plans are being prepared by the City Engineers for the construction of the Hall of Justice and jail. The estimated cost is $208,000. Frank C. Miller is City Engr. Noted Nov. 5.

+San Francisco, Calif.—The French Government has awarded the contract for the construction of an exhibit building at the Panama-Pacific International Exposition to the LINDGREN CO., at $88,820.

Contracts to Be Let

Bids received until Feb. 23, 1915.

Columbia River Interstate Bridge

Portland, Oregon.

Sealed proposals will be received by the Columbia River Interstate Bridge Commission on February 23, 1915, at two P.M., in room 201 of Multnomah County Court House, Portland, Oregon, for the furnishing of all materials and performing of all work for the construction of the Columbia River Interstate Bridge and Approaches. The bridge and approaches are for highway and street car traffic and comprise about 5000 linear feet of steel structure and 12,000 linear feet of embankment; including about 9500 tons of steel, about 1,000,000 cubic yards of embankment, and about 29,000 cubic yards of concrete. Contracts will be let under several sections to one or more bidders for a part or for the whole of the work.

Proposals and bids shall be subject to all requirements of the specifications, plans, contract, contractors' bonds, and proposal forms; and shall be made upon blank forms provided in the specifications. The bidder to whom a contract may be awarded shall promptly execute a formal contract and shall furnish a penal bond with good and sufficient sureties satisfactory to the Commissioners in an amount equal to the total contract price, for the faithful performance of said contract and all provisions thereof.

To all bids there shall be attached a certified check of the bidder, certified to by a responsible bank, made payable to Wm. N. Marshall, Secretary, of an amount of ten per cent. of the total bidding price, and the bidder who has a contract awarded to him and who fails promptly and properly to execute said contract, or bond, shall forfeit said check. The said check shall be taken and considered as liquidated damages and not a penalty for failure of such bidder to execute said contract and bond. Upon the execution of said contract and bond by the successful bidder, the said check shall be returned to him. The checks of unsuccessful bidders shall be returned to them after the contract and bond with the successful bidder are duly executed.

The contract will be awarded to the lowest responsible bidder, but the Commission reserves the right to reject any and all bids. Multnomah County provides five-sevenths and Clarke County two-sevenths of the funds for payments.

Plans and specifications are on file in the office of the County Clerk of Multnomah County, Oregon, in the office of the County Clerk of Clarke County, Washington, and in the office of State Commissioner of Highways at Salem, Oregon. Copies of the plans and specifications may be secured from the Secretary of the Interstate Bridge Commission at Vancouver, Washington, or from the Consulting Engineers, Waddell & Harrington, at Kansas City, Missouri, by depositing twenty-five dollars. The amount of the deposit will be refunded upon the return of the plans in good order accompanied by a bid; or one-half the amount of the deposit will be refunded upon the return of the plans in good order without a bid.

WM. N. MARSHALL, Secretary.
County Court House.

⁂

Bids received until Feb. 15, 1915.

Concrete Reservoir

Tampa, Fla.

Sealed proposals will be received, until twelve o'clock noon, February 15th, 1915, at the office of the Tampa Water Works Company, Tampa, Florida, addressed to Chester R. McFarland, General Manager, for a reinforced concrete reservoir about 206 feet long by about 125 feet wide by about 20 feet deep, in accordance with plans and specifications to be furnished by the said Company. A deposit of twenty-five dollars will be required for a copy of the above mentioned plans and specifications. Each bid must be accompanied by a certified check for twenty-five hundred dollars ($2,500), on a National Bank of Tampa, Fla., or Philadelphia, Pa., and made payable to the order of the Tampa Water Works Co. The successful bidder will be required to file with the Tampa Water Works Co., to insure the faithful performance of the contract, a surety bond acceptable to the Water Works Co. for fifty per cent. of the contract price. The Tampa Water Works Co. reserves the right to reject any or all bids.

Bids received until Mar. 2, 1915.

Ashby Reservoir

FITCHBURG, MASS., WATER WORKS.

Sealed bids for constructing Ashby Reservoir, Fitchbu Water Supply System, will be received by the Board of Wat Commissioners at their office, City Hall, Main Street, Fitchburg, Mass., until 2 o'clock P.M., Tuesday, March 2, 191 Bids must be upon the blank form of proposal furnished. Each bid must be accompanied by a certified check drawn o a National bank or trust company established in some cit in the State of Massachusetts, or the City of New York, for seven thousand five hundred dollars ($7,500). A contract bond in the sum of thirty-five thousand dollars ($35,000) with a surety company will be required. The main features of the construction are an earth dam approx. 1040 ft. long, max. height about 25 ft.; an earth dike approx. 1090 ft. long, max. height about 19 feet; thin reinforced concrete curtain walls for both dam and dike; concrete spillway dams and paved channel; concrete gate-well, gate-house, gate manhole and pipe lines; and about 7,000 linear feet of gravel road construction.

The principal items of work are approximately as follows:

Clearing and grubbing	60 acres
Earth excavation	55,200 cubic yards
Rock excavation	6,800 cubic yards
Concrete masonry	3,870 cubic yards
Steel reinforcing bars	179,000 pounds
Stone paving	7,250 square yards

Required date of completion of contract July 1, 1916. Premium for completion October 1, 1915, five thousand dollars ($5,000). Contract drawings, form of proposal, contract and specifications may be obtained at office of the Water Commissioners in Fitchburg, or at office of Metcalf & Eddy, Engineers, 14 Beacon Street, Boston, Mass. A deposit of ten dollars ($10) will be required on plans and specifications. Plans and specifications may also be seen at office of Metcalf & Eddy, Harris Trust Bldg., Chicago, Ill., and at office of "Engineering News," New York City.

THOMAS P. SHELDON,
ARTHUR A. TRAIN,
FRANK H. FOSS,
Board of Water Commissioners.

ERNEST E. LOTHROP,
City Engineer.
METCALF & EDDY,
Consulting Engineers, Boston, Mass.
January 12, 1915.

⁂

Bids received until Feb. 16, 1915.

Sewers

Warren, R. I.

Sealed proposals will be received by the Sewer Commissioners of the town of Warren, R. I., until 2 o'clock P.M., Tuesday, February 16th, 1915, for the construction of about 15,000 feet of sewers 8" to 18" in diameter, sedimentation tanks and two small collection wells and motor houses.

Each proposal for the above work must be accompanied by a certified check for $1000, made payable to the town of Warren, as a guarantee for the execution of the contract and bond, and to be returned after the contract is awarded.

Plans and specifications with blank form of proposal can be obtained at the office of Charles F. Chase, Civil Engineer, 75 Westminster Street, Providence, R. I.

A deposit of $10 will be required for each copy of the plans and specifications, and said deposit will be refunded upon the return of the plans and specifications in good condition within two weeks after receipt of bids.

The successful bidders will be required to furnish a Surety bond for, at least, 30% of the gross amount of the contract.

The Sewer Commissioners reserve the right to reject any or all bids.

Bids shall be endorsed on the outside, "Bid for Sewers, etc.," and sent to the Secretary of the Sewer Commissioners.

WILLIAM H. SMITH,
Secretary of the Sewer Commission.

Bids received until Feb. 2, 1915.

Alterations to Electric Plant

Bath, N. Y.

Sealed proposals for alterations to Electric Plant at the New York State Soldiers & Sailors Home, Bath, N. Y., will be received by Hon. Joseph A. Goulden, President, Board of Trustees, New York State Soldiers & Sailors Home, Bath, N. Y., until February 2, 1915, at eleven o'clock A.M. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of 5% of the amount of bid. The contractor to whom the award is made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 2063. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Soldiers & Sailors Home, Bath, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of Ten Dollars, made payable to the State of New York, which check will be returned when plans and specifications are returned in good condition to Lewis F. Pilcher, State Architect.

WILLIAM H. NICHOLS, Secretary.

Dated Bath, N. Y., January 6, 1915.

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Bids received until Feb. 12, 1915.

New Floors in Cottages

Hudson, N. Y.

Sealed proposals for New Floors in Cottages 1-2-3-4 at the New York State Training School for Girls, Hudson, N. Y., will be received by Miss Mary Hinkley, President of the Board of Managers, New York State Training School for Girls, Hudson, N. Y., until Friday, February 12, 1915, at 2 P.M., when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of 5% of the amount of bid. Contractor to whom the award is made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 2205. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Training School for Girls, Hudson, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher.

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Bids received until Feb. 15, 1915.

Proposals for Paving

Emmetsburg, Iowa.

Sealed proposals will be received by the City Clerk of the City of Emmetsburg until 2 o'clock P. M. on the 15th day of February, 1915, at which time said proposals will be publicly opened by the City Council of the City of Emmetsburg, for the construction of approximately forty thousand (40,000) square yards of pavement, composed of one of the following materials: Bitulithic, Sarcolithic, Mineral Rubber, Asphaltic Concrete, Vitrified Brick, Creosoted Wood Block, or Portland Cement Concrete.

Payment will be made in special assessment bonds on the completion of the work. Certified check for Seven Thousand Five Hundred Dollars ($7500.00) will be required. The right is reserved to reject any and all bids. Attention is directed to the official proposal notice published in the Emmetsburg Democrat, a newspaper of the City of Emmetsburg, Iowa.

Plans and specifications may be seen at the office of the City Clerk of said City, at the Des Moines National Bank, Des Moines, Iowa, and at the office of the Aetna Engineering Bureau, Civil and Sanitary Engineers, 17 N. LaSalle St., Chicago, Ill.

Bids received until Feb. 4, 1915.

Main Sewer

DEPARTMENT OF PUBLIC WORKS
Office, 216 City Hall
Philadelphia, January 14, 1915.

Sealed Proposals, endorsed "Bids for Main Sewer" and addressed to the undersigned, at Room 216 City Hall, will be received until 12 o'clock, noon, on Thursday, February 4, 1915, for

Schedule A. Gunners Run relief sewer in Indiana street from 3rd street to 12th street. 10 feet diameter brick sewer. Appropriation $200,000.

Plans for the above work will be exhibited in the office of Bureau of Surveys, Philadelphia.

Specifications and blank forms upon which bids must be made, will be furnished upon applications to the Chief Engineer, Room [illegible] City Hall.

Bidders must be skilled and regularly engaged in the class of work bid for.

Bids will be opened and read in Room 225 City Hall, at noon on date above mentioned.

No bid will be considered unless accompanied by a certificate from the City Solicitor, that the provisions of an ordiance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81, West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city.

M. L. COOKE, Director.

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Bids received until Feb. 19, 1915.

Pumping Station and Equipment

Quincy, Illinois, January, 1915.

Sealed bids will be received until 2 o'clock P.M., February 19th, 1915, at office of Edmund T. Perkins Engineering Company, First Nat'l. Bk. Bldg., Chicago, for furnishing all materials, machinery and labor for erection and installation of an electric pumping station for the South Quincy Drainage and Levee District, Adams County, Illinois. Pumping Station requires construction of Pump House, Substation, Suction and Discharge Bays, laying of about 180 feet of C. I. pipe, hauling and erection of all machinery and wiring for electric machinery and lighting.

Bids for the pumping machinery will be received either as a whole or for each part. The plans call for 2 centrifugal pumps, equipped with chain drive and necessary auxiliaries, a 5 ton traveling crane and 2—200 H.P. motors and auxiliaries and 3—150 K.A. Transformers.

For further information address the Edmund T. Perkins Engineering Company.

The Commissioners reserve the right to reject any or all bids.

WALTER P. MARTINDALE, Secretary.

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Bids received until Feb. 18, 1915.

Fabius River Drainage District—3

SCOTLAND, KNOX, CLARK AND LEWIS COUNTIES,
STATE OF MISSOURI.

Sealed bids will be received by the Supervisors of the Fabius River Drainage District No. 3 at the office of F. H. McCullough, Edina, Missouri, until 11:00 o'clock A. M., February 18, A.D. 1915, for the construction of channels for the Fabius River Drainage District No. 3. There are about 500,000 cubic yards of channel excavation. The work has been divided into two sections.

For further information inquire of Harman Engineering Co., 144 Fredonia Ave., Peoria, Ill.

Jacob A. Harman, Chief Engineer.

Jan. 20, 1915.

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U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., January 12, 1915.—Sealed proposals for dredging in Harlem River, N. Y., will be received at this office until 12 M., February 11, 1915, and then publicly opened. Information on application. W. M. BLACK, Col. Engrs.

Bids received until Feb. 24, 1915.

Intercepting Sewers

OFFICIAL NOTICE NO. 9.

PUBLISHED BY AUTHORITY OF THE SEWERAGE COMMISSION OF THE CITY OF MILWAUKEE.

Milwaukee, Wis., January 15, 1915.

Sealed proposals for constructing intercepting sewers and connections on both sides of the Milwaukee River in the City of Milwaukee will be received by the Sewerage Commission at its office in the City Hall until 2:00 P.M. on the 24th day of February, A.D. 1915, at which place and time the proposals will be publicly opened and read.

The work to be done is divided into two separate contracts numbered 9 and 10.

Number 9 embraces the construction of an intercepting sewer and branches on the east side of Milwaukee River from a point below the Dam to the intersection of Broadway and Detroit Streets, and requires the construction of approximately:

7927 ft. brick and concrete sewer in open cut from 30" to 51" diameter.
3992 ft. brick and concrete sewer in tunnel from 30" to 51" diameter.
3844 feet terra cotta pipe sewer from 10" to 24" diameter.
1762 feet of manholes and pile and timber foundations.

Number 10 embraces the construction of an intercepting sewer and branches on the west side of Milwaukee River from the Holton Street viaduct to the intersection of West Water and Fowler Streets and requires the construction of approximately:

8480 ft. brick and concrete sewer in open cut from 30" to 48" diameter.
2340 feet terra cotta pipe sewer in open cut from 10" to 18" diameter.
1105 feet of manholes and pile and timber foundations.

All as shown upon the plans and described in the specifications now on file in the office of the Sewerage Commission.

The time allowed for completing each contract shall be two hundred and fifty (250) working days. (Working days meaning such as are particularly described in the contract.)

The liquidated damages for not completing the work within the time agreed shall, for each day's delay, be an amount equal to one-half of one percentum of the aggregate cost of the work embraced in the contract.

Each proposal must be accompanied by a cash deposit of, or, in lieu thereof, by a certified check drawn upon a national or state bank doing business in the City of Milwaukee, to the order of the "Sewerage Commission of the City of Milwaukee," for the following sums; failing in which the bid will be rejected:

For proposals Number 9, $38,500.00.
For proposal Number 10, $25,000.00.

Specifications and blank forms of proposals can be obtained, and details plans examined, at the office of the Sewerage Commission in the City Hall.

The prices must be written in the proposal and also stated in figures. In case of variation the written prices will prevail.

All cash deposits or certified checks deposited by bidders to whom the contract is not awarded will be returned upon application to the Secretary of the Commission after the contract has been awarded or after the rejection of all bids. The cash deposit or certified check which may be deposited by the successful bidder will be returned to him as soon as the contract is properly executed and approved by the City Attorney and Sewerage Commission.

Full sets of detail plans will be sent to any contractor desiring to bid upon receipt of ten dollars ($10.00).

The Sewerage Commission of the City of Milwaukee reserves the right to reject any and all bids submitted.

J. H. FOWLES, Secretary.

Countersigned:
LOUIS M. KOTECKI, Comptroller.

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SEALED PROPOSALS will be received at the Office of the Lighthouse Inspector, Philadelphia, Pa., until 2 o'clock p.m., February 19, 1915, and then opened, for furnishing and erecting an elevated boardwalk at Bellevue Range Rear Lighthouse, Delaware. Blank proposals and particulars may be obtained by addressing the Lighthouse Inspector, Philadelphia, Pa.

U. S. ENGINEER OFFICE, First District, New York City, Room 710, Army Building, 39 Whitehall Street, New York, N. Y., January 23, 1915.—Sealed proposals for dredging in Port Chester Harbor, N. Y., will be received at this office until 12 M., February 23, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Engrs.

U. S. ENGINEER OFFICE, Savannah, Ga., January 25, 1915. —Sealed proposals for furnishing and placing stone for raising low places in jetty at Savannah Harbor, Ga., will be received at this office until 12 Noon (Eastern Standard Time) February 24, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Col., Engrs.

Bids received until Feb. 15, 1915.

Water Works

Mount Morris, N. Y.

Sealed proposals will be received by the Municipal Board of the Village of Mount Morris, Livingston County, N. Y., to 2 o'clock P. M., February 15, 1915, for furnishing the materials and constructing a new Distribution System of Cast Iron Water Mains, gate valves, fire hydrants, etc., for the Water Works of said Village.

There will be required approximately the following material:—Nine miles of 10, 8 and 6 inch cast iron water mains, ninety-eight (98) fire hydrants and ninety-five (95) gate valves and boxes, and other work and materials as set forth in the specifications.

A certified check in an amount equal to at least two per cent. (2%) of the amount of the bid, made payable to C. W. Bingham, Treasurer of the Village of Mount Morris, must accompany each proposal.

Proposals must be enclosed in sealed envelopes and each must have written on it plainly the words "Proposal for Distribution system," and must state also the portion of the work for which it is a proposal. They must be addressed to J. A. Striker, Village Clerk, Mount Morris, N. Y.

Plans may be seen and specifications and blank forms of proposal procured at the Office of J. A. Striker, Clerk of the Village, Mount Morris, N. Y.

The right is reserved to reject any and all bids.

MUNICIPAL BOARD,
By J. Aubrey Striker, Village Clerk.

J. F. Witmer Company, Engineers,
Buffalo, N. Y.

Mount Morris, N. Y., January 27, 1915.

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Bids received until Feb. 20, 1915.

Twenty-Inch Water Main

Middletown, N. Y.

Sealed proposals indorsed "Proposals for laying twenty inch cast iron water main" will be received at the office of the Commissioner of Public Safety at the City Hall, Middletown, N. Y., until 4 P.M. on Saturday, February 20th, 1915, when they will be publicly opened and read.

Proposals shall be accompanied by a certified check payable to the order of the Treasurer of the City of Middletown, N. Y., in the sum of Five Hundred Dollars. Approximate quantities are as follows:

A. Chopping, clearing and draining.
B. 2,510 lin.ft. of trenching and refilling.
C. 1,600 lin.ft. of deep trenching and refilling.
D. 1,890 lin.ft. of grading and embankment over pipe.
E. 6,000 lin.ft. of laying, jointing and caulking 20" pipe.
F. All testing pipes under pressure.

The right is reserved to reject any or all proposals or bids. Bond in the amount of not less than 50% of the contract price will be required for the proper performance of the contract. Plans and specifications can be obtained at the office of the Commissioner of Public Safety, No. 15 City Hall, Middletown, N. Y.

J. C. DEGNAN,
Commissioner of Public Safety.

⁂

Bids received until Feb. 9, 1915.

Sedimentation Basin

Philadelphia, Pa.

Bids will be received at Room 216 City Hall, Philadelphia, and opened February 9, 1915, at noon, in Room 225 City Hall, Philadelphia, for a Sedimentation Basin at Torresdale filters. Bidders will be required to file a bond for $500, and an additional surety company guarantee with bid. Plans and specifications can be had at Room 701 City Hall. **A deposit of $10.00 is required for plans and specifications.**

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U. S. ENGINEER OFFICE, Trust Company Building, Postoffice and **Tremont Sts., Galveston, Texas, January 25, 1915.**— Sealed proposals for construction of motor dredge tender, "La Porte," will be received at this office until 12 o'clock, noon, February 23, 1915, and then publicly opened. Information on application. C. S. RICHE, Lt. Col., Engineers.

U. S. ENGINEER OFFICE, Cincinnati, O., January 27, 1915. —Sealed proposals for constructing and delivering two steel hull sternwheel towboats "Cayuga" and "Ottawa" will be received at this office until 2 p.m., February 26, 1915, and then publicly opened. Information on application. H. JERVEY, Lt. Col., Engrs.

U. S. ENGINEER OFFICE, Louisville, Ky., January 25, 1915. —Sealed proposals for furnishing and erecting Three Mitering Lock Gates of two leaves each, for Lock No. 41, Ohio River, will be received here until 12 noon, central time, February 25, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

DEPARTMENT OF THE INTERIOR, U. S. RECLAMATION SERVICE, Washington, D. C., January 25, 1915.—Sealed proposals will be received at the office of the United States Reclamation Service, Provo, Utah, until 2 o'clock P.M., February 24, 1915, for construction involving 49,000 yards of canal excavation and 3,670 yards of reinforced concrete. The work is located near Payson City, Utah, on the San Pedro, Los Angeles and Salt Lake R.R. and the Tintic Branch of the Denver and Rio Grande R.R. For particulars, address the United States Reclamation Service at Provo, Utah, or Washington, D. C. A. P. DAVIS, Director and Chief Engineer.

U. S. ENGR. OFFICE, Boston, Mass., Jan. 18, 1915.—Sealed proposals for dredging in Chelsea Creek, Boston Harbor, Mass., will be received here until 12 M., Feb. 18, 1915, and then publicly opened. Information on application. W. E. CRAIGHILL, Lieut. Col., Engrs.

OFFICE OF THE COMMISSIONERS, D. C., Washington, D. C., January 28th, 1915.—SEALED PROPOSALS will be received at this office, Room 509, District Building, until 2 o'clock P.M., on February 8, 1915, for the construction of Sewers in the District of Columbia, involving the construction of 12,800 linear feet of Pipe sewer, 10 inches to 24 inches diameter. Forms of proposals, specifications and necessary information may be obtained from the Chief Clerk, Engineer Department, Room 427, District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

U. S. ENGINEER OFFICE, 305 Southern Building, Washington, D. C., Jan. 18, 1915.—Sealed proposals for substitution of through span for deck span in the Pennsylvania Avenue Bridge across Anacostia River, Washington, D. C., will be received at this office until Feb. 17, 1915, and then publicly opened. Information on application. H. C. NEWCOMER, Lt. Col., Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similar literature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids. $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 20 years' experience financial, executive, selling and advertising work, open for engagement. P. W. 674, Eng. News.

MECHANICAL ENGINEER, 34, technical school and 12 years' broad experience, desires position, in or near New York preferred. P. W. 730, Eng. News.

Civil Engineers

ENGINEER, 14 years' experience; surveys on railroad location and construction, irrigation, drainage, United States Geological, subdivisions, flood prevention and sewers. Flitman, 7 West Harrison, Danville, Ill.

CIVIL ENGINEER, 26, technical graduate, 5 years' experience in railroad maintenance and municipal engineering and construction. Good references. P. W. 686, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; 6 years' experience, structural drafting railroad work and factory construction. P. W. 723, Eng. News.

CIVIL ENGINEER; graduate, 12 years' practical experience with consulting engineers and utility companies; water works and other utilities; preliminary investigations, design, construction, appraisals. References. P. W. 726, Eng. News.

CIVIL ENGINEER, four years' experience structural steel and reinforced concrete; position with city or county engineer desired; experience desired rather than large salary. P. W. 714, Eng. News, Chicago.

CIVIL ENGINEER, 12 years' experience on large electric-power houses, reservoirs, foundation and railroad construction; moderate salary. P. W. 715, Eng. News, Chicago.

CIVIL ENGINEER; 10 years' experience, field and office, desires position; structural or reinforced concrete design and estimates; railroad or municipal. P. W. 670, Eng. News, Chicago.

CIVIL ENGINEER, 25, technical graduate with two years' varied construction experience, will accept anything reasonable, efficient, well recommended. P. W. 770, Eng. News, Chicago.

CIVIL ENGINEER, water-works manager, and superintendent, sixteen years' experience engineering work, seven years of which water-works superintendence and construction, with municipal corporation. Now engaged; desires water-works position. P. W. 771 Eng. News.

GRADUATE CIVIL ENGINEER with 2 years' experience in railroad location and maintenance, and general engineering work desires position with railroad or general contractor. P. W. 772, Eng. News.

GRADUATE CIVIL ENGINEER, 24, desires position. Two years' experience structures and concrete. P. W. 774, Eng. News.

GRADUATE CIVIL ENGINEER, Assoc. M. Am. Soc., C. E., age, 30; nine years' experience, roads and pavements, railroad construction, superintendent for contractor, canal construction and hydraulic work. Recently finished in charge of work aggregating $4,500,000. References furnished. Interested in any position giving chance for advancement. Capable of designing and superintending heavy construction. P. W. 775, Eng. News.

ENGINEER, 37, with 12 years' experience in design, construction and economies of hydro-electric and water-front developments, also fireproof buildings, desires position of trust and adequate renumeration. P. W. 784, Eng. News, Chicago.

CIVIL ENGINEER, 10 years' experience in structural steel, reinforced concrete, reconstruction work, etc., and also commercial experience in South America, wants employment; speaks Spanish, French and German fluently. P. W. 788, Eng. News.

CIVIL ENGINEER, technical graduate; 24; two years' experience, railroad and maintenance and concrete bridge design and construction; position with engineers or contractors; go anywhere, immediately. P. W. 781, Eng. News.

Bridge and Structural

CHIEF DRAFTSMAN, charge 60 men, desires change; age 35; strong personal force; proved executive ability; 14 years' comprehensive experience. P. W. 520, Eng. News.

GRADUATE ENGINEER; designer bridge and structural work, reinforced concrete, railway and transmission line structures; general contracting and building. Experience in office and field. Open for engagement. P. W. 683, Eng. News.

BRIDGE AND STRUCTURAL ENGINEER with long experience holding responsible positions wishes to change location. P. W. 751, Eng. News.

Surveyors

INSTRUMENT MAN, age 26, six years' experience in field, office and construction work. Position in the East preferred. P. W. 748, Eng. News.

SURVEYOR, technical graduate, two years' practical experience. Absolutely reliable, will run instruments, plot own notes, etc., location immaterial. P. W. 773, Eng. News.

INSTRUMENTMAN, topographer, map, draftsman; thorough experience, own instruments; first class. P. W. 785, Eng. News, Chicago.

Draftsmen

FIRST CLASS structural checker and squadman, twelve years' experience; bridges, buildings, industrial plants, with steel mills and construction companies. Good executive, first class reference. Available, February first or before. P. W. 738, Eng. News.

EXPERT DRAFTSMAN and designer, steel work and machinery 15 years, local position wanted. P. W. 754, Eng. News.

Superintendents, Etc.

EXPERIENCED TIMEKEEPER and office man desires position at once. Will go anywhere. Best of references. Box 163, Richmond, Va.

SECRETARY—Office man, stenographer, secretary, with good command of Spanish, wants position with company operating in Central or South America. Six years' experience on construction, railroad, and steel work. P. W. 744, Eng. News.

YOUNG MAN, 28, business and engineering experience, wishes to learn purchasing with engineers, contractor or railroad; will start at moderate salary; go anywhere. P. W. 787, Eng. News.

SUPERINTENDENT of cement plant, age thirty-six, good construction man or operator, desires change available on short notice. P. W. 776, Eng. News.

CONSULTING ENGINEER AND SALESMAN; 5 years' traveling experience designing, introducing, selling and contracting for construction materials, among state, city and private architects, engineers and contractors throughout eastern half of the United States; open for engagement. P. W. 777, Eng. News.

YOUNG MAN would like position timekeeping or foreman. P. W. 782, Eng. News.

POSITIONS OPEN

EXPERIENCED ESTIMATOR for general building construction; state age, experience and salary expected. P. 783, Eng. News.

TOWN MANAGER—The Town of Norwood, Massachusetts, will receive applications for the position of town manager. The appointee will be head of all departments of the town government and must be a man specially fitted by education, training and experience—including engineering work—to perform the necessary duties. State age and experience. Address office of Selectmen, Town of Norwood, Massachusetts.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

SUPERINTENDENT for malleable iron plant, also general foreman for large motor shop, building motors and generators. Only high grade men need apply. The Toledo Engineering Agency, Toledo, Ohio.

WANTED

COPIES of January 7, 1915, issue "Engineering News." Will pay 15 cents and postage. Subscription Dept. "Eng. News."

BUSINESS OPPORTUNITIE

CONTRACTORS AND EXPORTERS: Do you wish t serices of an American, Member American Society of Ci Engineers, with some capital who has had 18 years' enginee ing experience in the United States, Alaska, Central and Sou America. Knowledge of language and business customs Latin America. B. O. 778, Eng. News.

LIVE CONCERN OR CAPITALIST wanted to exploit ne mechanical stoker—the only practical stoker for small anthra cite coal—in conjunction with artificial draft furnace o established reputation. B. O. 786, Eng. News.

FOR SALE

TEN TEAM OUTFIT, bottom dumpers, scraper, and roadwork, Sullivan County. William Oppenheim, 793 Westechester Ave., Bronx, N. Y.

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

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ADDRESSES

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CARPENTER & ANDERSON, Union Trust Bldg., Detroit.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW CO., Wm. B., Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
ROCHESTER—Address P. O. Box 27, Rochester, N. Y.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu,ft. First class condition. Theo. Smith & Sons Co., Jersey City, N. J.

3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

BARGES

[Wanted]

Deck barge about 34'x80'x6' steel or wood, in first class condition. Mail full particulars and location to HENRY BICKEL CO., Louisville, Ky.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

40, 50, 60 and 80 H.P. loco. type on skids.—PIPE & C. S. CO.

BUCKETS

One four leaf 1 yd. Orange peel.—PIPE & C. S. CO.

5—¾ cu. yd. standard clam shells.—STALLEY.

1—1 yd. Williams single line clam shell.—BECKWITH.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

CARS

[Standard Gauge]

7—12 yd. 2-way Oliver dump cars with air brakes.—ROCHESTER.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

CRUSHER EQUIPMENT

Stone crusher equipment including boiler, engine, crusher and 115 ft. American Steel derrick, complete. Will sell all or part.—KANAWHA LAND CO., Charleston, W. Va.

DERRICKS

1 Steel stiff leg, 70' boom; 1 steel guy, 70' boom, 25 tons cap.; 1 steel traveling, 45' boom.—GIVIN.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

1—20" Hydraulic dredge, complete with Pontoons, pipe line, etc.—ROCHESTER.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, OIL

35 H.P. Foos, nearly new.—Address C. RUTTER SPENCER CO., Water & Dickinson St., Phila., Pa.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

EXCAVATORS

1 Monighan Drag Line with one and two-yd. bucket in Detroit, Mich.—CARPENTER.

FEED WATER HEATERS

Several types, capacities up to 1200 HP.—NEW RIVER.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33" diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

12 Lidgerwood, Lambert and others. Also one 5 lever Stroudsburg 7x10 cableway engine. PIPE & C. S. CO.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

1—7½ H.P. single drum electric hoist.—BECKWITH.

TWO HUNDRED FIFTEEN hoists. Immediate delivery. 3- drum, 7x10, 8¼x10, 9x10, Skeleton or boiler.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$175 K & E No. 5025 Precision 3 screw Y level, new, $133; $235 K. & E. No. 5060 Fine Tr. V. Circle, new, $195—Guaranteed. 99 others. Rentals, repairs, supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS.

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

9x14 Porter and 10x16 Baldwin.—BRADEN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE.

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

2—¾ yd. Ransomes with engines, on skids; 2—No. 2½ Smiths with engines, on wheels.—PIPE & C. S. CO.

PILING, SHEET STEEL

5000 pieces Lackawanna and Carnegie.—GRIMSHAW.

PIPE

All sizes. ½" to 18" with perfect threads and couplings, also larger sizes. Pipe cut to sketch. PIPE & C. S. CO.

PIPE MACHINES

Saunders, Williams; from ¾ to 8".—PIPE & C. S. CO.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

1 No. 8, 1 No. 9, 1 No. 10 Cameron.—MARINE.

2 Davidson Simplex 9x9x11.—MARINE.

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE.

1 No. 486 Emerson, 4" suc., 3" dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

2 Worthington 1,500,000 gal. Horizontal, Duplex Power, 14" diameter, 10" stroke.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

3 Underwriters fire pumps cheap.—WHITNEY.

What is best offer before Feb. 5 on two 20x12x16 Fairbanks Morse Duplex Underwriters pumps with trimmings? Steam header included with fittings; used ten years.—ROYAL C. WISE, 9 S. Clinton St., Chicago, Ill.

RAILS

24" and 20" industrial rail and turntables.—PIPE & C. S. CO

ROAD ROLLERS

10-ton macadam in excellent condition. Low price for quick sale.—F. S. 779, Eng. News.

[Wanted]

Tandem paving roller at a bargain. Send description to W. 780, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

1—1¼ yd. Vulcan steam shovel.—ROCHESTER.

STEEL SHEETING

124 pcs. 15' 15" 33 lb. and 782 pcs. 22' 15" 33 lb. channels with Nye locks in Detroit and Grand Rapids.—CARPENTER.

TRAVELING CRANES

1 15-ton electric 36' 6" span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

TURBINES

2 Houston 44" Vertical, with beveled gears, shafting, etc. —WATER & LIGHT COMMISSION, Fergus Falls, Minn.

WELL DRILLING MACHINES

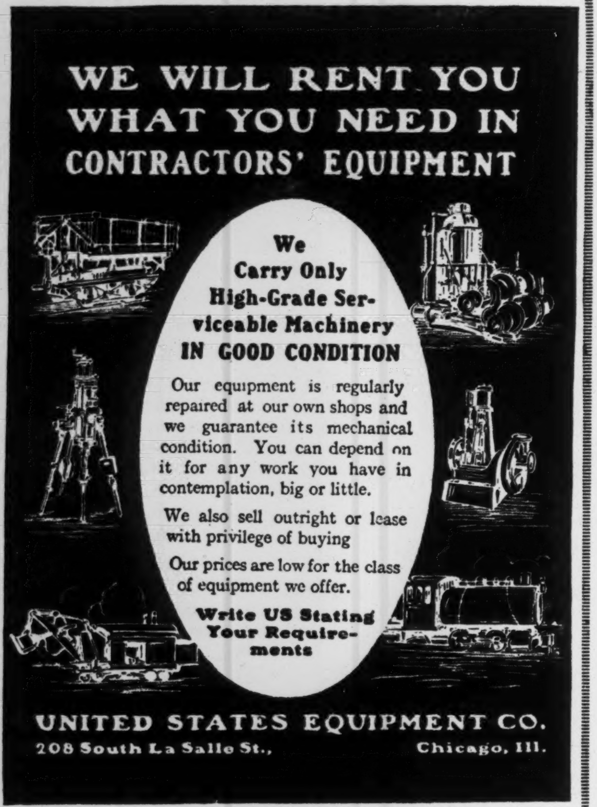
1 No. 3½ Keystone well drilling machine.—ROCHESTER.

Firm building good engineering specialties and desiring to acquire

Export or Eastern Business

can make advantageous New York connection with party having technical ability, selling experience, and a complete office equipment.

Address W. 621, Engineering News.



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We Carry Only High-Grade Serviceable Machinery IN GOOD CONDITION

Our equipment is regularly repaired at our own shops and we guarantee its mechanical condition. You can depend on it for any work you have in contemplation, big or little.

We also sell outright or lease with privilege of buying

Our prices are low for the class of equipment we offer.

Write US Stating Your Requirements

UNITED STATES EQUIPMENT CO.
208 South La Salle St., Chicago, Ill.

WE NEED

—at least 50 copies,

each, of our January 7th and 14th issues to supply requests that have come to us after these issues were exhausted.

We will pay 20 cents each for copies of these issues received in good condition before February 10th.

No letter is required, merely write your name and address on the wrapper, and mail (4c. postage) to

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Engineering News, New York

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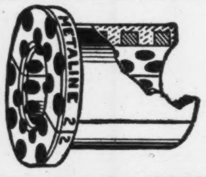
Air Reheaters
Blowers and Fans
Buckets
Cars
Car Tipple
Rock Drills
Elevators
Tripods
Drill Columns
Electric Locomotives
Grout Machines
Man Locks
Pile Hammer
Pumps
Saw
Steel Pontoon
Spiral Pipe
Wrought Iron Pipe
Drill Steels

Apply to

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.



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(Trade Mark Reg.)

BUSHINGS for LOOSE PULLEYS

and similar places, positively avert the danger of **FIRE** which is always present where oil is used for lubrication.

THE METALINE COMPANY
Sole Manufacturers
6 West Ave. Long Island City, N. Y.

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Earth and Stone Handling Machinery

Air Dump Cars—Hand Dump Cars—Spreader Cars—Scrapers—Road Machinery—Portable Rock Crushers—Dump Wagons—Elevating Graders. Wagon Loaders and Ditchers. **Glad to send Catalogs.**

Western Wheeled Scraper Co., Farnsworth Ave. Aurora, Ill.

PILE DRIVING

Dock and Bridge Building
Foundations-Marine Railways Dry Docks
Coal Pockets-Timber and Concrete Bulkheads
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PHONE RECTOR 4965 **A. M. HAZELL INC.** 90 WEST ST. (West Street Bldg.) NEW YORK

CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York.
Cable Address, Pawnee Havana.
Western Union & Lieber Codes Used.
Havana Office, Zulueta 36 D.

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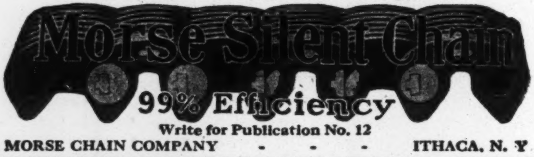
Woolworth Building, 233 Broadway New York

"The most economical way of transmitting power."



Write for Publication No. 12

MORSE CHAIN COMPANY - - - ITHACA, N. Y.

GOULDS PUMPS

FOR EVERY SERVICE

THE GOULDS MANUFACTURING CO. SENECA FALLS, N.Y.

Contracts to Be Let

Bids received until Feb. 20, 1915.

Twenty-Inch Water Main

Middletown, N. Y.

Sealed proposals indorsed "Proposals for laying twenty inch cast iron water main" will be received at the office of the Commissioner of Public Safety at the City Hall, Middletown, N. Y., until 4 P.M. on Saturday, February 20th, 1915, when they will be publicly opened and read.

Proposals shall be accompanied by a certified check payable to the order of the Treasurer of the City of Middletown, N. Y., in the sum of Five Hundred Dollars. Approximate quantities are as follows:

A. Chopping, clearing and draining.
B. 2,510 lin.ft. of trenching and refilling.
C. 1,600 lin.ft. of deep trenching and refilling.
D. 1,890 lin.ft. of grading and embankment over pipe.
E. 6,000 lin.ft. of laying, jointing and caulking 20″ pipe.
F. All testing pipes under pressure.

The right is reserved to reject any or all proposals or bids. Bond in the amount of not less than 50% of the contract price will be required for the proper performance of the contract. Plans and specifications can be obtained at the office of the Commissioner of Public Safety, No. 15 City Hall, Middletown, N. Y.

J. C. DEGNAN,
Commissioner of Public Safety.

⁂

Bids received until Feb. 17, 1915.

Furnishing Cement

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
Springfield, Illinois.

Notice is hereby given that sealed proposals for furnishing approximately 235,500 barrels of cement to be used in State Aid Road construction for the year of 1915 will be received at the office of the State Highway Commission, Springfield, Illinois, until 11:00 o'clock A.M., February 17, 1915.

All proposals must be made on forms furnished by the State Highway Commission, without any addition or modification whatsoever.

All proposals otherwise submitted will be rejected as irregular.

The State Highway Commission reserves the right to reject any or all proposals.

Full information may be obtained by writing direct to the State Highway Commission, Springfield, Illinois.

STATE HIGHWAY COMMISSION,
By WM. W. MARR,
Chief State Highway Engineer.

January 30, 1915.

⁂

Bids received until Feb. 15, 1915.

Concrete Reservoir

Tampa, Fla.

Sealed proposals will be received, until twelve o'clock noon, February 15th, 1915, at the office of the Tampa Water Works Company, Tampa, Florida, addressed to Chester R. McFarland, General Manager, for a reinforced concrete reservoir about 206 feet long by about 125 feet wide by about 20 feet deep, in accordance with plans and specifications to be furnished by the said Company. A deposit of twenty-five dollars will be required for a copy of the above mentioned plans and specifications. Each bid must be accompanied by a certified check for twenty-five hundred dollars ($2,500), on a National Bank of Tampa, Fla., or Philadelphia, Pa., and made payable to the order of the Tampa Water Works Co. The successful bidder will be required to file with the Tampa Water Works Co., to insure the faithful performance of the contract, a surety bond acceptable to the Water Works Co. for fifty per cent. of the contract price. The Tampa Water Works Co. reserves the right to reject any or all bids.

Bids received until Feb. 24, 1915.

Intercepting Sewers

OFFICIAL NOTICE NO. 9.

PUBLISHED BY AUTHORITY OF THE SEWERAGE COMMISSION OF THE CITY OF MILWAUKEE.

Milwaukee, Wis., January 15, 1915.

Sealed proposals for constructing intercepting sewers and connections on both sides of the Milwaukee River in the City of Milwaukee will be received by the Sewerage Commission at its office in the City Hall until 2:00 P.M. on the 24th day of February, A.D. 1915, at which place and time the proposals will be publicly opened and read.

The work to be done is divided into two separate contracts numbered 9 and 10.

Number 9 embraces the construction of an intercepting sewer and branches on the east side of Milwaukee River from a point below the Dam to the intersection of Broadway and Detroit Streets, and requires the construction of approximately:

7927 ft. brick and concrete sewer in open cut from 30″ to 51″ diameter.
3992 ft. brick and concrete sewer in tunnel from 30″ to 51″ diameter.
3844 feet terra cotta pipe sewer from 10″ to 24″ diameter.
1762 feet of manholes and pile and timber foundations.

Number 10 embraces the construction of an intercepting sewer and branches on the west side of Milwaukee River from the Holton Street viaduct to the intersection of West Water and Fowler Streets and requires the construction of approximately:

8480 ft. brick and concrete sewer in open cut from 30″ to 48″ diameter.
2340 feet terra cotta pipe sewer in open cut from 10″ to 18″ diameter.
1105 feet of manholes and pile and timber foundations.

All as shown upon the plans and described in the specifications now on file in the office of the Sewerage Commission.

The time allowed for completing each contract shall be two hundred and fifty (250) working days. (Working days meaning such as are particularly described in the contract.)

The liquidated damages for not completing the work within the time agreed shall, for each day's delay, be an amount equal to one-half of one percentum of the aggregate cost of the work embraced in the contract.

Each proposal must be accompanied by a cash deposit of, or, in lieu thereof, by a certified check drawn upon a national or state bank doing business in the City of Milwaukee, to the order of the "Sewerage Commission of the City of Milwaukee," for the following sums; failing in which the bid will be rejected:

For proposals Number 9, $38,500.00.
For proposal Number 10, $25,000.00.

Specifications and blank forms of proposals can be obtained, and details plans examined, at the office of the Sewerage Commission in the City Hall.

The prices must be written in the proposal and also stated in figures. In case of variation the written prices will prevail.

All cash deposits or certified checks deposited by bidders to whom the contract is not awarded will be returned upon application to the Secretary of the Commission after the contract has been awarded or after the rejection of all bids. The cash deposit or certified check which may be deposited by the successful bidder will be returned to him as soon as the contract is properly executed and approved by the City Attorney and Sewerage Commission.

Full sets of detail plans will be sent to any contractor desiring to bid upon receipt of ten dollars ($10.00).

The Sewerage Commission of the City of Milwaukee reserves the right to reject any and all bids submitted.

J. H. FOWLES, Secretary.

Countersigned:
LOUIS M. KOTECKI, Comptroller.

⁂

U. S. ENGINEER OFFICE, 405 Customhouse, Cincinnati, O., January 30, 1915.—Sealed proposals for constructing and delivering two steel Fuel Flats Nos. 18 and 19, and one steel Barge No. 15, will be received at this office until 2 p.m., March 2, 1915, and then publicly opened. Information on application. H. JERVEY, Lt. Col., Engrs.

Bids received until Feb. 23, 1915.

Green Houses

Ithaca, N. Y.

Sealed proposals for Green Houses, Construction, Heating and Plumbing and Electric Work at the New York State College of Agriculture, Cornell University, Ithaca, N. Y., will be received by Mr. E. L. Williams, Comptroller, Cornell University, Ithaca, N. Y., until Tuesday, February 23rd, 12 M., when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of Nine hundred Dollars ($900.00) for Construction Work, in the sum of Three hundred Dollars ($300.00) for Heating Work and in the sum of Fifty Dollars ($50.00) for Plumbing Work and in the sum of Seventy-five Dollars ($75.00) for Electric Work. Contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. of the amount of contract within thirty (30) days from date of official notice of award of contract and in accordance with the terms of specification Nos. 2130, 2151, 2152 and 2153. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State College of Agriculture, Cornell University, Ithaca, N. Y., at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of Ten Dollars ($10.00) made payable to the State of New York for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

⁂

Bids received until Feb. 18, 1915.

Sanitary Work in Hospital

Rochester, N. Y.

Sealed proposals for the new sanitary work in the North Building of the Rochester State Hospital, Rochester, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 2:30 P.M. on Thursday, February 18, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of 5% of the amount of bid. The contractor to whom the award is made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty (30) days after official notice of award of contract, and in accordance with the terms of specification No. 1956. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Rochester State Hospital, Rochester, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10 made payable to the State of New York, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

⁂

Bids received until Mar. 2, 1915.

Proposals for Road Oil

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Tuesday, March 2nd, 1915, at 12 o'clock noon, for furnishing and delivering F.O.B. cars, Wilkes-Barre, Pennsylvania, Forty Thousand (40,000) gallons of road oil, more or less. The bidder will quote prices by the barrel, tank car or otherwise and will plainly give the name or brand of oil bid on, and must submit samples with proposal. Proposals will be endorsed "Proposals for Road Oil" and addressed to Fred H. Gates, City Clerk, and each bid must be accompanied by a certified bank check of the bidder in the sum of Two Hundred Dollars ($200.00), conditioned upon entering into a contract with the City, otherwise no action will be taken on the bid submitted. The City reserves the right to reject any or all bids received.

CHARLES N. LOVELAND, Superintendent,
Department of Streets and Public Improvements.

Bids received until Mar. 4, 1915.

Building Construction

Newark, N. Y.

Sealed proposals for Cottage for ninety-two inmates, Construction, Heating, Plumbing and Electric Work and for Hospital Building, Construction, Heating, Plumbing and Drainage and Electric Work at the New York State Custodial Asylum for Feeble Minded Women, Newark, N. Y., will be received by Dr. Henry H. Stebbins, President, Board of Trustees, New York State Custodial Asylum for Feeble Minded Women, Newark, N. Y., until 12 o'clock Noon, March 4th, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of five per cent. of the amount of bid. Contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. of the amount of contract within thirty (30) days from date of official notice of award of contract and in accordance with the terms of specification Nos. 2055, 2076, 2077, 2078, 2117, 2121, 2122 and 2123. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Custodial Asylum for Feeble Minded Women, Newark, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice and upon the deposit of a certified check in the sum of Ten Dollars ($10.00) made payable to the State of New York for each set of plans and specifications, which check will be returned if the plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

⁂

Bids received until Feb. 12, 1915.

New Floors in Cottages

Hudson, N. Y.

Sealed proposals for New Floors in Cottages 1-2-3-4 at the New York State Training School for Girls, Hudson, N. Y., will be received by Miss Mary Hinkley, President of the Board of Managers, New York State Training School for Girls, Hudson, N. Y., until Friday, February 12, 1915, at 2 P.M., when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of 5% of the amount of bid. Contractor to whom the award is made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 2205. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Training School for Girls, Hudson, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher.

⁂

Bids received until Feb. 18, 1915.

Fabius River Drainage District—3

SCOTLAND, KNOX, CLARK AND LEWIS COUNTIES,
STATE OF MISSOURI.

Sealed bids will be received by the Supervisors of the Fabius River Drainage District No. 3 at the office of F. H. McCullough, Edina, Missouri, until 11:00 o'clock A. M., February 18, A.D. 1915, for the construction of channels for the Fabius River Drainage District No. 3. There are about 500,000 cubic yards of channel excavation. The work has been divided into two sections.

For further information inquire of Harman Engineering Co., 144 Fredonia Ave., Peoria, Ill.

Jacob A. Harman, Chief Engineer.

Jan. 20, 1915.

⁂

U. S. ENGINEER OFFICE, First District, New York City, Room 710, Army Building, 39 Whitehall Street, New York, N. Y., Jan. 30, 1915.—Sealed proposals for constructing one motor launch will be received at this office until 12 M., February 15, 1915, and then publicly opened. Information on application. W. M. BLACK, Col. Engrs.

Bids received until Mar. 12, 1915.

Proposals for Street Paving

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Friday, March 12th, 1915, at 12 o'clock Noon, for curbing and paving streets in the City of Wilkes-Barre, Pennsylvania. Bids to be submitted in accordance with specifications, copies of which may be had upon application to B. K. Finch, City Engineer, upon the payment to him of the sum of Five Dollars ($5.00), which will be refunded to bidders, provided specifications are returned to the City Engineer on or before March 15th, 1915. Bids to be submitted as follows:—For sheet asphalt in two sections, totaling about 40,000 square yards; For vitrified brick in four sections totaling about 46,000 square yards; For cobblestone in one section of 600 square yards; For vitrified brick and macadam in one section of 7,500 square yards, together with the necessary red stone, blue stone or concrete curbing. Certified bank check for Five Hundred Dollars ($500.00) to accompany each bid except for cobblestone, which will be for One Hundred Dollars ($100.00). Proposals to be endorsed "Proposals for curbing or paving" and addressed to Fred H. Gates, City Clerk. The City Council reserves the right to reject any or all bids received.

CHARLES N. LOVELAND, Superintendent,
Department of Streets and Public Improvements.

⁂

U. S. ENGR. OFFICE, Boston, Mass., Jan. 18, 1915.—Sealed proposals for dredging in Chelsea Creek, Boston Harbor, Mass., will be received here until 12 M., Feb. 18, 1915, and then publicly opened. Information on application. W. E. CRAIGHILL, Lieut. Col., Engrs.

U. S. ENGINEER OFFICE, 305 Southern Building, Washington, D. C., Jan. 18, 1915.—Sealed proposals for substitution of through span for deck span in the Pennsylvania Avenue Bridge across Anacostia River, Washington, D. C., will be received at this office until Feb. 17, 1915, and then publicly opened. Information on application. H. C. NEWCOMER, Lt. Col., Engrs.

U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., January 12, 1915.—Sealed proposals for dredging in Harlem River, N. Y., will be received at this office until 12 M., February 11, 1915, and then publicly opened. Information on application. W. M. BLACK, Col. Engrs.

U. S. ENGINEER OFFICE, First District, New York City, Room 710, Army Building, 39 Whitehall Street, New York, N. Y., January 23, 1915.—Sealed proposals for dredging in Port Chester Harbor, N. Y., will be received at this office until 12 M., February 23, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Engrs.

U. S. ENGINEER OFFICE, Savannah, Ga., January 25, 1915—Sealed proposals for furnishing and placing stone for raising low places in jetty at Savannah Harbor, Ga., will be received at this office until 12 Noon (Eastern Standard Time) February 24, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Col., Engrs.

U. S. ENGINEER OFFICE, Galveston, Texas, Feb. 2, 1915.—Sealed proposals for dredging at Port Aransas, Texas, and in the Channel from Aransas Pass to Corpus Christi, Texas, will be received at this office until 12 o'clock noon, March 3, 1915, and then publicly opened. Information on application. C. S. RICHE, Lieut. Col., Engineers.

U. S. ENGINEER OFFICE, Room 802, Army Building, 39 Whitehall Street, New York City, February 4, 1915.—Sealed proposals for dredging in Woodbridge Creek, Raritan Bay, and Shrewsbury River, N. J., will be received at this office until 12 M., February 19, 1915, and then publicly opened. Bids for any or all of these works will be considered. Information on application. FREDERIC V. ABBOT, Colonel, Engineers.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., January 28, 1915.—Sealed proposals will be received in this office until 3 o'clock p.m. March 11, 1915, and then opened, for the mechanical equipment (except elevator) of the experiment station, United States Bureau of Mines, Pittsburgh, Pa., in accordance with drawings and specifications, copies of which may be obtained at this office, in the discretion of the Supervising Architect. O. WENDEROTH, Supervising Architect.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., February 1, 1915.—SEALED PROPOSALS will be opened in this office at 3 p.m., March 25, 1915, for the construction complete (including mechanical equipment—except elevator—lighting fixtures, and approaches) of the United States Post Office and Court House at Pendleton, Oregon. Three-story and basement, fireproof building; ground area, 5,500 square feet; stone, terra-cotta, and brick facing. Drawings and specifications may be obtained, after February 11, 1915, from the Custodian of site at Pendleton, Oregon, or at this office, in the discretion of the Supervising Architect. O. WENDEROTH, Supervising Architect.

Bids received until Feb. 16, 1915.

New York State Hospital

West Haverstraw, N. Y.

Sealed proposals for the new Hospital Building, Construction, Heating, Plumbing and Drainage, Electric Work and Electric Elevator at the New York State Hospital for Crippled and Deformed Children, West Haverstraw, N. Y., will be received by Mr. George Blagden, President of the Board of Managers, New York State Hospital for Crippled and Deformed Children, West Haverstraw, N. Y., until Tuesday, February 16th, 1915, at 1 P.M., when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of Twelve hundred Dollars ($1200.00) for Construction Work, in the sum of five per cent. of the amount of bid for Heating Work, in the sum of One hundred and fifty Dollars ($150.00) for Plumbing Work, in the sum of five per cent. of the amount of bid for Electric Work and Electric Elevator. Contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specifications Nos. 2079, 2081, 2082, 2083 and 2084. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Hospital for Crippled and Deformed Children, West Haverstraw, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice and upon the deposit of a certified check in the sum of Ten Dollars ($10.00) made payable to the State of New York for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

⁂

Bids received until Feb. 16, 1915.

Sanitary Sewerage System and Sewage Disposal Plant

Lodi, Medina Co., Ohio.

LEGAL NOTICE

Sealed bids will be received by G. C. Rice, Village Clerk of the Village of Lodi, Medina County, Ohio, until 12 o'clock noon, Central Standard Time, on the 16th day of February, 1915, for furnishing the necessary labor and materials for the construction of a sanitary sewerage system and sewage disposal plant, in accordance with the plans and specifications therefor, on file in the office of said Clerk, and also on file in the office of the Engineer.

The sewerage system includes about **six miles of pipe**, from 4 to 12 inches in diameter, with **some 60 manholes** and 19 flush tanks.

The sewage disposal plant includes a **small settling tank**, dosing appliance, and sand filtration area.

Details of all are contained in the specifications, and shown upon the plans, copies of which may be seen at the above mentioned offices, and the specifications had from the Village Clerk.

Bidders, who desire, may receive complete copies of plans, by sending the sum of Five Dollars ($5.00) to the Engineer at his Pittsburgh office.

G. C. RICE, Village Clerk,
Lodi, Ohio.

MR. L. E. CHAPIN, Engineer,
1017 Frick Bldg., Pittsburgh, Pa., and 1312 Woodland Avenue, Canton, O.

⁂

U. S. ENGINEER OFFICE, Trust Company Building, Postoffice and Tremont Sts., Galveston, Texas, January 25, 1915.—Sealed proposals for construction of motor dredge tender, "La Porte," will be received at this office until 12 o'clock, noon, February 23, 1915, and then publicly opened. Information on application. C. S. RICHE, Lt. Col., Engineers.

U. S. ENGINEER OFFICE, Cincinnati, O., January 27, 1915.—Sealed proposals for constructing and delivering two steel hull sternwheel towboats "Cayuga" and "Ottawa" will be received at this office until 2 p.m., February 26, 1915, and then publicly opened. Information on application. H. JERVEY, Lt. Col., Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 34, technical school and 12 years' broad experience, desires position, in or near New York preferred. P. W. 730, Eng. News.

Civil Engineers

ENGINEER, 14 years' experience; surveys on railroad location and construction, irrigation, drainage, United States Geological, subdivisions, flood prevention and sewers. Flitman, 7 West Harrison, Danville, Ill.

CIVIL ENGINEER, four years' experience structural steel and reinforced concrete; position with city or county engineer desired; experience desired rather than large salary. P. W. 714, Eng. News, Chicago.

CIVIL ENGINEER, 25, technical graduate with two years' varied construction experience, will accept anything reasonable, efficient, well recommended. P. W. 770, Eng. News, Chicago.

CIVIL ENGINEER, water-works manager, and superintendent, sixteen years' experience engineering work, seven years of which water-works superintendence and construction, with municipal corporation. Now engaged; desires water-works position. P. W. 771 Eng. News.

GRADUATE CIVIL ENGINEER, 24, desires position. Two years' experience structures and concrete. P. W. 774, Eng. News.

ENGINEER, 37, with 12 years' experience in design, construction and economies of hydro-electric and water-front developments, also fireproof buildings, desires position of trust and adequate renumeration. P. W. 784, Eng. News, Chicago.

CIVIL ENGINEER; good technical education; six years' experience in field, drafting and design, timber, steel and concrete structures (specializing in reinforced concrete); tracks, yards and earthwork; on heavy railroad construction and Panama Canal. P. W. 820, Eng. News.

CIVIL ENGINEER, Assoc. M. Am. Society of Civil Engineers, sixteen years' experience in charge of heavy railroad construction, field and office general engineering surveys and estimates open for engagement March 1. P. W. 824, Eng. News.

EXPERIENCED CONSTRUCTION ENGINEER, good executive, manager, superintendent, designer, estimator, on bridges, concrete, railway construction; position desired with contractor, engineers or controllers of public utilities; university graduate; salary reasonable. P. W. 823, Eng. News.

CIVIL ENGINEER; graduate, 12 years' practical experience with consulting engineers and utility companies; water works and other utilities; investigations, reports, design, construction, appraisals. References. P. W. 825, Eng. News.

CIVIL ENGINEER, technical graduate; 24; two years' experience, railroad and maintenance and concrete bridge design and construction; position with engineers or contractors; go anywhere, immediately. P. W. 790, Eng. News.

GRADUATE ENGINEER, available immediately, 8 years' experience, 5 in charge of work; reinforced concrete, hydro-electric developments, including investigation and construction, brick pavements and railroads; excellent references. P. W. 796, Eng. News.

CIVIL ENGINEER, technical graduate. Three years' experience in the construction of water supply and sewage disposal plants, general building construction, pipe lines, and steel structures, as engineer and draftsman, desires position with engineer or contractor. At liberty after March 1. P. W. 803, Eng News.

RECENT GRADUATE CIVIL ENGINEERING wants opportunity where energy, thoroughness and some ability will bring results. P. W. 801, Eng. News, Chicago.

YOUNG MAN—Technical graduate, 3 years' experience office and field, well recommended. Engineer or contractor. P. W. 799, Eng. News.

GRADUATE CIVIL ENGINEER; 6 years' experience, structural drafting railroad work and factory construction. P. W. 809, Eng. News.

GRADUATE CIVIL ENGINEER, 37; 12 years' experience and in charge of construction, sewers, roads, pavements, bridges and tunnels. Good executive. References. P. W. 814, Eng. News.

Bridge and Structural

CHIEF DRAFTSMAN, charge 60 men, desires change; age 35; strong personal force; proved executive ability; 14 years' comprehensive experience. P. W. 520, Eng. News.

BRIDGE AND STRUCTURAL ENGINEER with long experience holding responsible positions wishes to change location. P. W. 751, Eng. News.

STRUCTURAL ENGINEER, 18 years' experience in steel concrete, general engineering and building construction, office and field; is open for position. Best of references. Address, M. O. B., 129 N. Pryor St., Atlanta, Ga.

Surveyors

INSTRUMENTMAN, topographer, map, draftsman; thorough experience, own instruments; first class. P. W. 785, Eng. News, Chicago.

SURVEYOR—Will sign contract, transitman, timekeeper, South American preferred. Experience, seven years topographic, hydrographic, inspector, timekeeper construction, transitman tunnel work. Best references. P. W. 813, Eng. News.

Draftsmen

DRAFTSMAN; age 22, experience, would like position in architects office or civil engineers office. Now employed. P. W. 797, Eng. News.

YOUNG MAN—Architectural student for the past 2 years, wishes position with architectural or structural engineer. Several years' experience in interior design and some architectural experience. P. W. 791, Eng. News.

FIRST CLASS mechanical draftsman, cranes and hoisting machinery, designing or detail work. P. W. 818, Eng. News.

Superintendents, Etc.

YOUNG MAN, 28, business and engineering experience, wishes to learn purchasing with engineers, contractor or railroad; will start at moderate salary; go anywhere. P. W. 787, Eng. News.

SUPERINTENDENT of cement plant, age thirty-six, good construction man or operator, desires change available on short notice. P. W. 776, Eng. News.

CONTRACTORS ENGINEER, graduate of Mass. Inst. Technology, 10 years' experience with large contractors, familiar with all classes of heavy work such as locks, dams, retaining walls, concrete bridges, heavy earth and rock work, etc. Also thoroughly familiar with all office details, estimating, design and layout of equipment, purchasing, cost keeping, etc., desires position with concern where hard work and fidelity are required. P. W. 812, Eng. News.

ENGINEER desires position. Expert derrick or cableway runner. Massachusetts and New York City licenses. References from all former employers. Location no object. P. W. 815, Eng. News.

GRADUATE ENGINEER, 10 years' experience on construction of various types foundations, bridge piers, retaining walls, bridges, railroad construction, wants job with contractors or engineering firm as superintendent or in charge construction office. Unmarried, go anywhere. P. W. 817, Eng. News.

SALESMAN; five years' experience selling contractors' machinery; graduate Boston Tech.; wishes position selling contractors' supplies or machinery; interview Boston or New York; will go anywhere. P. W. 821, Eng. News.

PRACTICAL CONCRETE SUPERINTENDENT; fifteen years' experience in New York City, all kinds of concrete work, cement paving and cinder concrete fireproofing; experienced with foreign laborers. Good solicitor and estimator. Anywhere. P. W. 822, Eng. News.

GENERAL CARPENTER FOREMAN—By one of 12 years' experience, understands estimating of concrete work, mason work, can handle rigging, install plant; have been employed on some of the biggest foundation and construction work in the United States. P. W. 795, Eng. News, Chicago.

ENGINEER with twenty years' experience in electrical, water, sewer, power plant, railroad and general construction work; open for engagement. P. W. 802, Eng. News.

POSITIONS OPEN

MAN WHO HAS HAD EXPERIENCE in estimating waterproofing from architects' plans and specifications, and in supervising waterproofing and waterproofing repair contract work. P. 810, Eng. News.

A FIRST CLASS DRAFTSMAN, thoroughly experienced in sugar plant equipment. Send full account of experience; references; salary; age; married or single and how soon available. P. 811, Eng. News.

AN EXPERIENCED MAN with scientific training to take full charge of power plant and machinery in factory in Metropolitan District employing about 300 hands. Must have knowledge of the working of refrigerating and electrical plants; possess executive ability; and be enough of a "driver" to get results economically. Fair salary to start and good salary if applicant "makes good" after trial. P. 792, Eng. News.

CIVIL ENGINEER to take charge of drafting department of a long established company engaged in the fabrication and erection of structural steel; must be competent to design; must be able to direct men. State previous experience, age, nationality, residence and salary desired. P. 808, Eng. News.

COMPETENT QUANTITY SURVEYOR, one capable of taking off quantities and making up estimates on mason work and allied trades. References required. P. 798, Eng. News.

A HIGH GRADE MECHANICAL ENGINEER with broad experience as chief engineer in a large Brooklyn factory. Only the highest type of man with executive experience need apply. Applicants to be considered must give complete details of former experience. P. 789, Eng. News.

SALES ENGINEER with proven selling ability. Excellent opportunity for young man. State full particulars regarding age, training, references, salary expected; also state if can accept position at once. P. 800, Eng. News .

HULL DRAFTSMAN—First class man required. P. 793, Eng. News.

HAVE AN OPENING for a young textile graduate (mechanical engineer preferred) to start in a business where there is an exceptional opportunity. Address giving full particulars, Room 808, 47 West 34th St. New York City.

GRADING FOREMAN; roller men and Thew shovel operator wanted for New York state highway work; season 1915. State age; experience and references in first letter. P. 794, Eng. News.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

SUPERINTENDENT for malleable iron plant, also general foreman for large motor shop, building motors and generators. Only high grade men need apply. The Toledo Engineering Agency, Toledo, Ohio.

BUSINESS OPPORTUNITIES

TO RENT—Large machinery house in lower part New York City will rent part of store, show window and shipping facilities to manufacturer of machine tools, steam pumps, gas engines or contractors machinery. A fine chance for party wishing New York representation. Price low. B. O. 804, Eng. News.

SALES MANAGER—A Canadian farming implement manufacturing corporation has an opening for experienced sales manager [preferably with experience in above line], to take full charge of sales department; attractive salary and commission contract guaranteed to right party; $2500 cash investment and A1 references required. This is a high grade proposition for a high grade man. Investment fully secured. Correspondence treated strictly confidential. B. O. 805, Eng. News.

FACTORY SUPERINTENDENT—Position vacant for a high grade factory superintendent, with executive ability, to take full charge of all branches of a farming implement factory in Canada; applicant must be able to invest $2500 cash and move at once to Ontario, Canada; contract with good salary guaranteed to right party; investment covered by guaranteed security. B. O. 806, Eng. News.

TREASURER—Large manufacturing corporation, established 1850, location Canada, has a vacancy for a highly efficient business man as secretary and treasurer; party must be able to invest at least $5000 cash and give best of references as to ability and character; contract with good salary guaranteed to right party; investment absolutely secured; answer in full or no attention paid. B. O. 807, Eng. News.

FOR SALE

FOR SALE cheap second hand engineering books. E. P. Dupen, Bisbee, Arizona.

ENGINEERING NEWS for sale; 1898-1907 inclusive bound and 1909-1911 inclusive unbound. F. S. 819, Eng. News.

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

N

ADDRESSES

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CARPENTER & ANDERSON, Union Trust Bldg., Detroit.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW CO., Wm. B., Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
INGERSOLL, H. G., 76 William St., New York, N. Y.—Much of this equipment can be seen at work, vicinity N. Y.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
ROCHESTER—Address P. O. Box 27, Rochester, N. Y.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-⅛x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition. Theo. Smith & Sons Co., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

BARGES

[Wanted]

Deck barge about 34'x80'x6' steel or wood, in first class condition. Mail full particulars and location to HENRY BICKEL CO., Louisville, Ky.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

40, 50, 60 and 80 H.P. loco. type on skids.—PIPE & C. S. CO.

75 H.P. loco. type 100 lb. pressure allowed.—INGERSOLL.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

BUCKETS

One four leaf 1 yd. Orange peel.—PIPE & C. S. CO.

5—¾ cu. yd. standard clam shells.—STALLEY.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

⅞ yd. orange peel Smith.—INGERSOLL.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed. —GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

CABLEWAYS

400' for sewer work. Carson-Lidgerwood eng.—INGERSOLL.

CARS

[Standard Gauge]

7—12 yd. 2-way Oliver dump cars with air brakes.—ROCHESTER.

[36 Gauge]

40—4 yd. Western dump.—INGERSOLL.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.
National Jaw, 14x8, on wheels.—MARINE.
Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.
1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

CRUSHER EQUIPMENT

Stone crusher equipment including boiler, engine, crusher and 115 ft. American Steel derrick, complete. Will sell all or part.—KANAWHA LAND CO., Charleston, W. Va.

DERRICKS

1 Steel stiff leg, 70′ boom; 1 steel guy, 70′ boom, 25 tons cap.; 1 steel traveling, 45′ boom.—GIVIN.

Trav., 25′ spread, 60′ boom DD Mundy hoist.—INGERSOLL.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

1—20″ Hydraulic dredge, complete with Pontoons, pipe line, etc.—ROCHESTER.

DRILLS, ROCK

6 Ingersoll, type F-24, 2 class "C" Little Giants.—BECKWITH.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

EXCAVATORS

1 Monighan Drag Line with one and two-yd. bucket in Detroit, Mich.—CARPENTER.

FEED WATER HEATERS

Several types, capacities up to 1200 HP.—NEW RIVER.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33″ diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

12 Lidgerwood, Lambert and others. Also one 5 lever Stroudsburg 7x10 cableway engine. PIPE & C. S. CO.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

TWO HUNDRED FIFTEEN hoists. Immediate delivery. 3- drum, 7x10, 8¼x10, 9x10, Skeleton or boiler.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$190 Sala Lt. Mt. transit V circle, good cond., $115; $100 Buff & B. Engrs. Dumpy level, inverting, fine, $70. Guaranteed. 99 others. Rentals, repairs, supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18. saddle tank.—DOUGLAS

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36″ Gauge]

10 10x16″ Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14″ Porters.—SOUTHERN.

9x14 Porter and 10x16 Baldwin.—BRADEN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

1—18 ton Porter; 1—18 ton American.—INGERSOLL.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50′ boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21′ boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20′ boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE.

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE. Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

2—¾ yd. Ransomes with engines, on skids; 2—No. 2½ Smiths with engines, on wheels.—PIPE & C. S. CO.

1 cu.yd. Smith with engine on skids.—BECKWITH.

Haines gravity, ½ yd.—INGERSOLL.

PILING, SHEET STEEL

76 pcs. Lackawanna 14″ Arched Web, 32′ long; used o Also several other lots.—GRIMSHAW.

About 100 pcs. 28′, fairly good, $25 ton f.o.b. cars, F Worth, Tex.—F. N. GRAVES, Pur. Agent, Fort Worth, Tex

PIPE

All sizes. ½″ to 18″ with perfect threads and couplin also larger sizes. Pipe cut to sketch. PIPE & C. S. CO.

PIPE MACHINES

Saunders, Williams; from ¾ to 8″.—PIPE & C. S. CO.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

1 No. 8, 1 No. 9, 1 No. 10 Cameron.—MARINE.

2 Davidson Simplex 9x9x11.—MARINE.

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE

1 No. 486 Emerson, 4″ suc., 3″ dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

2 Worthington 1,500,000 gal. Horizontal, Duplex Power, 14″ diameter, 10″ stroke.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

3 Underwriters fire pumps cheap.—WHITNEY.

What is best offer before Feb. 5 on two 20x12x16 Fairbanks Morse Duplex Underwriters pumps with trimmings? Steam header included with fittings; used ten years.—ROYAL C. WISE, 9 S. Clinton St., Chicago, Ill.

RAILS

24″ and 20″ industrial rail and turntables.—PIPE & C. S. CO

100 tons 40 to 50 lb. rails, ties, etc.—INGERSOLL.

ROAD ROLLERS

10-ton macadam in excellent condition. Low price for quick sale.—F. S. 779, Eng. News.

[Wanted]

Tandem paving roller at a bargain. Send description to W. 780, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

1—1¼ yd. Vulcan steam shovel.—ROCHESTER.

2—70 ton Bucyrus 2½ yd. dippers.—INGERSOLL.

SPRINKLERS

500 gal. sanitary auto. street flushing mach.—INGERSOLL.

STEEL SHEETING

124 pcs. 15′ 15″ 33 lb. and 782 pcs. 22′ 15″ 33 lb. channels with Nye locks in Detroit and Grand Rapids.—CARPENTER.

TRAVELING CRANES

1 15-ton electric 36′ 6″ span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

TURBINES

2 Houston 44″ Vertical, with beveled gears, shafting, etc —WATER & LIGHT COMMISSION, Fergus Falls, Minn.

WELL DRILLING MACHINES

1 No. 3½ Keystone well drilling machine.—ROCHESTER.

Dredge Pipe for Sale

Pontoon and Land Pipe

20 inches and 22 inches in diameter. Also casks, pontoons, elbows and valves. In good condition, will sell at one-half value. Inquire, P. O. Box 27, Rochester, N. Y.

Contracts to Be Let

Bids received until Feb. 20, 1915.

Twenty-Inch Water Main

Middletown, N. Y.

Sealed proposals indorsed "Proposals for laying twenty inch cast iron water main" will be received at the office of the Commissioner of Public Safety at the City Hall, Middletown, N. Y., until 4 P.M. on Saturday, February 20th, 1915, when they will be publicly opened and read.

Proposals shall be accompanied by a certified check payable to the order of the Treasurer of the City of Middletown, N. Y., in the sum of Five Hundred Dollars. Approximate quantities are as follows:

A. Chopping, clearing and draining.
B. 2,510 lin.ft. of trenching and refilling.
C. 1,600 lin.ft. of deep trenching and refilling.
D. 1,890 lin.ft. of grading and embankment over pipe.
E. 6,000 lin.ft. of laying, jointing and caulking 20″ pipe.
F. All testing pipes under pressure.

The right is reserved to reject any or all proposals or bids. Bond in the amount of not less than 50% of the contract price will be required for the proper performance of the contract. Plans and specifications can be obtained at the office of the Commissioner of Public Safety, No. 15 City Hall, Middletown, N. Y.

J. C. DEGNAN,
Commissioner of Public Safety.

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Bids received until Feb. 17, 1915.

Furnishing Cement

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT

Springfield, Illinois.

Notice is hereby given that sealed proposals for furnishing approximately 235,500 barrels of cement to be used in State Aid Road construction for the year of 1915 will be received at the office of the State Highway Commission, Springfield, Illinois, until 11:00 o'clock A.M., February 17, 1915.

All proposals must be made on forms furnished by the State Highway Commission, without any addition or modification whatsoever.

All proposals otherwise submitted will be rejected as irregular.

The State Highway Commission reserves the right to reject any or all proposals.

Full information may be obtained by writing direct to the State Highway Commission, Springfield, Illinois.

STATE HIGHWAY COMMISSION,
By WM. W. MARR,
Chief State Highway Engineer.

January 30, 1915.

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Bids received until Feb. 15, 1915.

Concrete Reservoir

Tampa, Fla.

Sealed proposals will be received, until twelve o'clock noon, February 15th, 1915, at the office of the Tampa Water Works Company, Tampa, Florida, addressed to Chester R. McFarland, General Manager, for a reinforced concrete reservoir about 206 feet long by about 125 feet wide by about 20 feet deep, in accordance with plans and specifications to be furnished by the said Company. A deposit of twenty-five dollars will be required for a copy of the above mentioned plans and specifications. Each bid must be accompanied by a certified check for twenty-five hundred dollars ($2,500), on a National Bank of Tampa, Fla., or Philadelphia, Pa., and made payable to the order of the Tampa Water Works Co. The successful bidder will be required to file with the Tampa Water Works Co., to insure the faithful performance of the contract, a surety bond acceptable to the Water Works Co. for fifty per cent. of the contract price. The Tampa Water Works Co. reserves the right to reject any or all bids.

Bids received until Feb. 24, 1915.

Intercepting Sewers

OFFICIAL NOTICE NO. 9.

PUBLISHED BY AUTHORITY OF THE SEWERAGE COMMISSION OF THE CITY OF MILWAUKEE.

Milwaukee, Wis., January 15, 1915.

Sealed proposals for constructing intercepting sewers and connections on both sides of the Milwaukee River in the City of Milwaukee will be received by the Sewerage Commission at its office in the City Hall until 2:00 P.M. on the 24th day of February, A.D. 1915, at which place and time the proposals will be publicly opened and read.

The work to be done is divided into two separate contracts numbered 9 and 10.

Number 9 embraces the construction of an intercepting sewer and branches on the east side of Milwaukee River from a point below the Dam to the intersection of Broadway and Detroit Streets, and requires the construction of approximately:

7927 ft. brick and concrete sewer in open cut from 30″ to 51″ diameter.
3992 ft. brick and concrete sewer in tunnel from 30″ to 51″ diameter.
3844 feet terra cotta pipe sewer from 10″ to 24″ diameter.
1762 feet of manholes and pile and timber foundations.

Number 10 embraces the construction of an intercepting sewer and branches on the west side of Milwaukee River from the Holton Street viaduct to the intersection of West Water and Fowler Streets and requires the construction of approximately:

8480 ft. brick and concrete sewer in open cut from 30″ to 48″ diameter.
2340 feet terra cotta pipe sewer in open cut from 10″ to 18″ diameter.
1105 feet of manholes and pile and timber foundations.

All as shown upon the plans and described in the specifications now on file in the office of the Sewerage Commission.

The time allowed for completing each contract shall be two hundred and fifty (250) working days. (Working days meaning such as are particularly described in the contract.)

The liquidated damages for not completing the work within the time agreed shall, for each day's delay, be an amount equal to one-half of one percentum of the aggregate cost of the work embraced in the contract.

Each proposal must be accompanied by a cash deposit of, or, in lieu thereof, by a certified check drawn upon a national or state bank doing business in the City of Milwaukee, to the order of the "Sewerage Commission of the City of Milwaukee," for the following sums; failing in which the bid will be rejected:

For proposals Number 9, $38,500.00.
For proposal Number 10, $25,000.00.

Specifications and blank forms of proposals can be obtained, and details plans examined, at the office of the Sewerage Commission in the City Hall.

The prices must be written in the proposal and also stated in figures. In case of variation the written prices will prevail.

All cash deposits or certified checks deposited by bidders to whom the contract is not awarded will be returned upon application to the Secretary of the Commission after the contract has been awarded or after the rejection of all bids. The cash deposit or certified check which may be deposited by the successful bidder will be returned to him as soon as the contract is properly executed and approved by the City Attorney and Sewerage Commission.

Full sets of detail plans will be sent to any contractor desiring to bid upon receipt of ten dollars ($10.00).

The Sewerage Commission of the City of Milwaukee reserves the right to reject any and all bids submitted.

J. H. FOWLES, Secretary.

Countersigned:
LOUIS M. KOTECKI, Comptroller.

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U. S. ENGINEER OFFICE, 405 Customhouse, Cincinnati, O., January 30, 1915.—Sealed proposals for constructing and delivering two steel Fuel Flats Nos. 18 and 19, and one steel Barge No. 15, will be received at this office until 2 p.m., March 2, 1915, and then publicly opened. Information on application. H. JERVEY, Lt. Col., Engrs.

Bids received until Feb. 25, 1915.

Concrete Bridge

DEPARTMENT OF PUBLIC WORKS
Office, 216 City Hall
Philadelphia, February 8th, 1915.

Sealed Proposals, endorsed "Bids for the construction of a concrete bridge and its approaches to carry Broad Street over the joint four track railroad, South Philadelphia Track Elevation," and addressed to the undersigned, at Room 216 City Hall, will be received until 12 o'clock, noon, February 25th, 1915, for

CONTRACT No. 201. Broad Street Bridge over the joint four track railroad, South Philadelphia Track Elevation.

Plans for the above work will be exhibited in the office of Bureau of Surveys, Philadelphia.

Specifications and blank forms upon which bids must be made, will be furnished upon application to the Chief Engineer, Room 416 City Hall.

Bidders must be skilled and regularly engaged in the class of work bid for.

Bids will be opened and read in Room 225 City Hall, at noon, on date above mentioned.

No bid will be considered unless accompanied by a certificate from the City Solicitor that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81, West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city and the various Railroad Companies.

M. L. COOKE, Director.

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Bids received until Feb. 18, 1915.

Sanitary Work in Hospital

Rochester, N. Y.

Sealed proposals for the new sanitary work in the North Building of the Rochester State Hospital, Rochester, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 2:30 P.M. on Thursday, February 18, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of 5% of the amount of bid. The contractor to whom the award is made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty (30) days after official notice of award of contract, and in accordance with the terms of specification No. 1956. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Rochester State Hospital, Rochester, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10 made payable to the State of New York, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

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Bids received until Mar. 2, 1915.

Proposals for Road Oil

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Tuesday, March 2nd, 1915, at 12 o'clock noon, for furnishing and delivering F.O.B. cars, Wilkes-Barre, Pennsylvania, Forty Thousand (40,000) gallons of road oil, more or less. The bidder will quote prices by the barrel, tank car or otherwise and will plainly give the name or brand of oil bid on, and must submit samples with proposal. Proposals will be endorsed "Proposals for Road Oil" and addressed to Fred H. Gates, City Clerk, and each bid must be accompanied by a certified bank check of the bidder in the sum of Two Hundred Dollars ($200.00), conditioned upon entering into a contract with the City, otherwise no action will be taken on the bid submitted. The City reserves the right to reject any or all bids received.

CHARLES N. LOVELAND, Superintendent,
Department of Streets and Public Improvements.

Bids received until Mar. 4, 1915.

Building Construction

Newark, N. Y.

Sealed proposals for Cottage for ninety-two inmates, Construction, Heating, Plumbing and Electric Work and for Hospital Building, Construction, Heating, Plumbing and Drainage and Electric Work at the New York State Custodial Asylum for Feeble Minded Women, Newark, N. Y., will be received by Dr. Henry H. Stebbins, President, Board of Trustees, New York State Custodial Asylum for Feeble Minded Women, Newark, N. Y., until 12 o'clock Noon, March 4th, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of five per cent. of the amount of bid. Contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. of the amount of contract within thirty (30) days from date of official notice of award of contract and in accordance with the terms of specification Nos. 2055, 2076, 2077, 2078, 2117, 2121, 2122 and 2123. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Custodial Asylum for Feeble Minded Women, Newark, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice and upon the deposit of a certified check in the sum of Ten Dollars ($10.00) made payable to the State of New York for each set of plans and specifications, which check will be returned if the plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

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Bids received until Feb. 25, 1915.

Pump with Appurtenances

DEPARTMENT OF PARKS AND PUBLIC PROPERTY

Atlantic City, N. J.

SEALED PROPOSALS accompanied by plans and specifications for designing, furnishing, installing and testing One 18 million gallon Turbo-Centrifugal Pump with appurtenances, for the Absecon Pumping Station of Atlantic City, N. J., will be received by the Board of Commissioners of Atlantic City, when called for at the Chambers of said Board in the City Hall during a meeting to be held by that Body on the 25th day of February A.D. 1915, at which time and place, during a session of said Board the Proposals will be opened and publicly read.

Each Proposal submitted must be accompanied by a certified check drawn upon a National or State Bank, or a Trust Company and to the order of the City Treasurer of Atlantic City, N. J., for the sum of Three Thousand ($3,000.00) Dollars.

Specifications and blank forms of Proposal can be obtained from L. Van Gilder, Engineer and Superintendent of the Water Department at his office in the City Hall.

The Board of Commissioners expressly reserves the right to reject any or all bids as it may deem best for the public interest.

HARRY BACHARACH,
Director of Parks and Public Property.

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Bids received until Feb. 25, 1915.

Section H—Dorchester Tunnel

City of Boston, Mass.

Sealed bids for building Section H, Dorchester Tunnel, will be received by the undersigned until 12 o'clock noon of Thursday, February 25, 1915. The section is located in Dorchester avenue between Old Colony avenue and Woodward street, and is about 2,200 feet long. The structure is to be mainly of reinforced concrete, and consists of a single span double track tunnel to be built by the cut and cover method. The work also includes a pump well, an emergency exit, and sewer changes. Specifications and forms of contract can be obtained at 15 Beacon street, ninth floor. The right to reject any and all bids and to award the contract as is deemed to be for the best interest of the City of Boston is reserved.

By order of the BOSTON TRANSIT COMMISSION,
B. LEIGHTON BEAL, Secretary.

Bids received until Feb. 25, 1915.

Water Meters and Machinery

BUREAU OF ENGINEERING.
DEPARTMENT OF PUBLIC WORKS.

Chicago, February 3, 1915.

Sealed proposals will be received by the City of Chicago until 11 a.m. Thursday, February 25th, 1915, at Room 406 City Hall, for manufacturing and delivering to the City of Chicago Water Meters, made according to designs prepared by the City of Chicago. The following quantities of water meters are desired:

1,500 ¾-inch meters.
2,000 1-inch meters.
750 1½-inch meters.
750 2-inch meters.

The city will furnish detail drawings and one set of patterns of each meter. The contractor is to turn over to the city upon completion of his contract special machinery, tools, dies, jigs, etc., used in the manufacture of the meters, according to plans and specifications on file in the office of the Department of Public Works of said city, Room 406 City Hall.

Proposals must be made out upon blanks furnished at said office, and be addressed to said department, indorsed "Proposals for Water Meters," and be accompanied with One Thousand Dollars in money or a certified check for the same amount on some responsible bank located and doing business in the City of Chicago, and made payable to the order of the Commissioner of Public Works.

The Commissioner of Public Works reserves the right to reject any or all bids.

No proposal will be considered unless the party offering it shall furnish evidence satisfactory to the Commissioner of Public Works of his ability, and that he has the necessary facilities, together with sufficient pecuniary resources, to fulfill the conditions of the contract and specifications provided such contract should be awarded to him.

Companies or firms bidding will give the individual names as well as the name of the firm with their address.

L. E. McGANN,
Commissioner of Public Works.

⁂

Bids received until Mar. 15, 9115.

Notice to Bridge Contractors

Central Falls and Cumberland, R. I.

Sealed proposals for the construction of a three span reinforced concrete arch bridge across the Blackstone River, between the City of Central Falls, R. I., and the Town of Cumberland, R. I., will be received at the office of Esten & Black, Engineers, 18 East Ave., Pawtucket, R. I., until Twelve o'clock noon, March 15, 1915.

At (8) eight o'clock P.M. of the same day, March 15, 1915, they will be publicly opened and tabulated by the Central Falls and Cumberland Bridge Commission, at the Town Hall in the Town of Cumberland, Valley Falls, R. I.

Plans, specification, form of proposal, etc., may be obtained at the office of Esten & Black, Engineers, 18 East Ave., Pawtucket, R. I., upon depositing the sum of ($25) twenty-five dollars which will be refunded when the plans and specifications are returned in good condition and accompanied with a bid.

Each bid must be accompanied by a certified check of ($500) five hundred dollars each, one of which being payable to the City Treas. of the City of Central Falls, R. I., and the other to the Town Treas. of the Town of Cumberland, R. I.

The Commission reserves the right to reject any and all bids.

ESTEN & BLACK, Engineers.

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Bids received until Mar. 3, 1915.

Water and Sewer Plants

The Village of Lyons, N. Y.

Sealed proposals will be received by the Municipal Board of the Village of Lyons, N. Y., up to noon on the 3rd day of March, 1915, for the construction of a water works plant and for the construction of a sewerage system in accordance with plans and specifications therefor on file with the Clerk of said Village. Full information and bidding sheets may be obtained of J. F. Witmer & Co., Engineers for said Village, Dunn Building, Buffalo, N. Y., or of the undersigned at Lyons, N. Y.

H. F. ZIMMERLIN, Village Clerk.

Bids received until Feb. 16, 1915.

New York State Hospital

West Haverstraw, N. Y.

Sealed proposals for the new Hospital Building, Construction, Heating, Plumbing and Drainage, Electric Work and Electric Elevator at the New York State Hospital for Crippled and Deformed Children, West Haverstraw, N. Y., will be received by Mr. George Blagden, President of the Board of Managers, New York State Hospital for Crippled and Deformed Children, West Haverstraw, N. Y., until Tuesday, February 16th, 1915, at 1 P.M., when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of Twelve hundred Dollars ($1200.00) for Construction Work, in the sum of five per cent. of the amount of bid for Heating Work, in the sum of One hundred and fifty Dollars ($150.00) for Plumbing Work, in the sum of five per cent. of the amount of bid for Electric Work and Electric Elevator. Contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specifications Nos. 2079, 2081, 2082, 2083 and 2084. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Hospital for Crippled and Deformed Children, West Haverstraw, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice and upon the deposit of a certified check in the sum of Ten Dollars ($10.00) made payable to the State of New York for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

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Bids received until Mar. 12, 1915.

Proposals for Street Paving

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Friday, March 12th, 1915, at 12 o'clock Noon, for curbing and paving streets in the City of Wilkes-Barre, Pennsylvania. Bids to be submitted in accordance with specifications, copies of which may be had upon application to B. K. Finch, City Engineer, upon the payment to him of the sum of Five Dollars ($5.00), which will be refunded to bidders, provided specifications are returned to the City Engineer on or before March 15th, 1915. Bids to be submitted as follows:—For sheet asphalt in two sections, totaling about 40,000 square yards; For vitrified brick in four sections totaling about 46,000 square yards; For cobblestone in one section of 600 square yards; For vitrified brick and macadam in one section of 7,500 square yards, together with the necessary red stone, blue stone or concrete curbing. Certified bank check for Five Hundred Dollars ($500.00) to accompany each bid except for cobblestone, which will be for One Hundred Dollars ($100.00). Proposals to be endorsed "Proposals for curbing or paving" and addressed to Fred H. Gates, City Clerk. The City Council reserves the right to reject any or all bids received.

CHARLES N. LOVELAND, Superintendent,
Department of Streets and Public Improvements.

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Attention of Large Contractors

is called to an opportunity of which full information can be obtained by writing

JOHN L. ROPER LUMBER COMPANY,
Norfolk, Va.

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OFFICE OF THE COMMISSIONERS, D. C., February 4th, 1915.—SEALED PROPOSALS will be received at this office, Room 509 District Building, until 2 o'clock P.M., on February 15th, 1915, for the construction of Sewers in the District of Columbia, involving the construction of approximately 3,500 linear feet of trunk sewers, 6 foot 6 inch span to 7 foot span. Forms of proposals, specifications and necessary information may be obtained from the Chief Clerk, Engineer Department, Room 427 District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ. Commissioners, D. C.

U. S. ENGR. OFFICE, Boston, Mass., Jan. 18, 1915.—Sealed proposals for dredging in Chelsea Creek, Boston Harbor, Mass., will be received here until 12 M., Feb. 18, 1915, and then publicly opened. Information on application. W. E. CRAIGHILL, Lieut. Col., Engrs.

U. S. ENGINEER OFFICE, 305 Southern Building, Washington, D. C., Jan. 18, 1915.—Sealed proposals for substitution of through span for deck span in the Pennsylvania Avenue Bridge across Anacostia River, Washington, D. C., will be received at this office until Feb. 17, 1915, and then publicly opened. Information on application. H. C. NEWCOMER, Lt. Col., Engrs.

U. S. ENGINEER OFFICE, First District, New York City, Room 710, Army Building, 39 Whitehall Street, New York, N. Y., Jan. 30, 1915.—Sealed proposals for constructing one motor launch will be received at this office until 12 M., February 15, 1915, and then publicly opened. Information on application. W. M. BLACK, Col. Engrs.

U. S. ENGINEER OFFICE, First District, New York City, Room 710, Army Building, 39 Whitehall Street, New York, N. Y., January 23, 1915.—Sealed proposals for dredging in Port Chester Harbor, N. Y., will be received at this office until 12 M., February 23, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Engrs.

U. S. ENGINEER OFFICE, Savannah, Ga., January 25, 1915 —Sealed proposals for furnishing and placing stone for raising low places in jetty at Savannah Harbor, Ga., will be received at this office until 12 Noon (Eastern Standard Time) February 24, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Col., Engrs.

U. S. ENGINEER OFFICE, Galveston, Texas, Feb. 2, 1915.—Sealed proposals for dredging at Port Aransas, Texas, and in the Channel from Aransas Pass to Corpus Christi, Texas, will be received at this office until 12 o'clock noon, March 3, 1915, and then publicly opened. Information on application. C. S. RICHE, Lieut. Col., Engineers.

U. S. ENGINEER OFFICE, Room 802, Army Building, 39 Whitehall Street, New York City, February 4, 1915.—Sealed proposals for dredging in Woodbridge Creek, Raritan Bay, and Shrewsbury River, N. J., will be received at this office until 12 M., February 19, 1915, and then publicly opened. Bids for any or all of these works will be considered. Information on application. FREDERIC V. ABBOT, Colonel, Engineers.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., January 28, 1915.—Sealed proposals will be received in this office until 3 o'clock p.m. March 11, 1915, and then opened, for the mechanical equipment (except elevator) of the experiment station, United States Bureau of Mines, Pittsburgh, Pa., in accordance with drawings and specifications, copies of which may be obtained at this office, in the discretion of the Supervising Architect. O. WENDEROTH, Supervising Architect.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., February 1, 1915.—SEALED PROPOSALS will be opened in this office at 3 p.m., March 25, 1915, for the construction complete (including mechanical equipment—except elevator—lighting fixtures, and approaches) of the United States Post Office and Court House at Pendleton, Oregon. Three-story and basement, fireproof building; ground area, 5,500 square feet; stone, terra-cotta, and brick facing. Drawings and specifications may be obtained, after February 11, 1915, from the Custodian of site at Pendleton, Oregon, or at this office, in the discretion of the Supervising Architect. O. WENDEROTH, Supervising Architect.

Bids received until Mar. 5, 1915.

Supply of True Portland Cement

SEASON 1915.

GREATER WINNIPEG WATER DISTRICT.

Sealed **Tenders addressed to the undersigned** will be received up **to Noon March 5th, 1915, for the supply** of from **60,000 to 150,000 barrels of True Portland cement.**

Specifications and Form of Tender may be obtained and Form of Contract may be inspected at the Offices of the District.

The lowest or any tender not necessarily accepted.

S. H. REYNOLDS,
Chairman of Commissioners.

901 Boyd Building, Winnipeg, Man.
Date February 1st, 1915.

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U. S. ENGINEER OFFICE, Wilmington, N. C., Feb. 10, 1915. —Sealed proposals for dredging in Neuse River, waterway from Pamlico Sound to Beaufort Inlet, and Beaufort Harbor, N. C., will be received at this office until 12 M., Mar. 9, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engineers.

PROPOSALS FOR RIVER BANK PROTECTION—U. S. Engineer Office, Customhouse, St. Louis, Mo., February 8, 1915.—Sealed proposals for 10,000 linear feet of river bank protection, to include materials and work, will be received at this office until 11 A.M., March 10, 1915, and then publicly opened. Information on application. C. McD. TOWNSEND, Col., Engineers.

U. S. ENGINEER OFFICE, 602 Burke Bldg., Seattle, Wash., Feb. 3, 1915.—Sealed proposals for pumping plant for Lake Washington Canal locks will be received at this office until 12 noon, March 15, 1915, and then publicly opened. Information on application to U. S. Engr. Office, Seattle, Wn., Chicago, Ill., or New York, N. Y. J. B. CAVANAUGH, Maj., Engrs.

DEPARTMENT OF THE INTERIOR, U. S. RECLAMATION SERVICE, Washington, D. C., February 2, 1915.—Sealed proposals will be received at the office of the United States Reclamation Service, Grand Junction, Colorado, until 2 o'clock, P.M., March 10, 1915, for about 640,000 yards of canal excavation. The work is situated in the vicinity of Grand Junction and Fruita, Colorado. For particulars, address the United States Reclamation Service, Grand Junction, Colorado, or Washington, D. C. A. P. DAVIS, Director and Chief Engineer.

U. S. ENGINEER OFFICE, Trust Company Building, Postoffice and Tremont Sts., Galveston, Texas, January 25, 1915.—Sealed proposals for construction of motor dredge tender, "La Porte," will be received at this office until 12 o'clock, noon, February 23, 1915, and then publicly opened. Information on application. C. S. RICHE, Lt. Col., Engineers.

U. S. ENGINEER OFFICE, Cincinnati, O., January 27, 1915. —Sealed proposals for constructing and delivering two steel hull sternwheel towboats "Cayuga" and "Ottawa" will be received at this office until 2 p.m., February 26, 1915, and then publicly opened. Information on application. H. JERVEY, Lt. Col., Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 20 years' practical experience as a designer in various branches of mechanical engineering, capable of independent investigation of mechanical problems, desires position. "Exceptional ability" one reference says. P. W. 838, Eng. News.

Civil Engineers

ENGINEER, 14 years' experience; **surveys on railroad location and construction, irrigation, drainage, United States Geological, subdivisions, flood prevention and sewers.** Flitman, 7 West Harrison, Danville, Ill.

CIVIL ENGINEER; graduate, 12 years' practical experience with consulting engineers and utility companies; water works and other utilities; investigations, reports, design, construction, appraisals. References. P. W. 825, Eng. News.

CIVIL ENGINEER, technical graduate. Three years' experience in the construction of water supply and sewage disposal plants, general building construction, pipe lines, and steel structures, as engineer and draftsman, desires position with engineer or contractor. At liberty after March 1. P. W. 803, Eng News.

YOUNG MAN—Technical graduate, 3 years' experience office and field, well recommended. Engineer or contractor. P. W. 799, Eng. News.

GRADUATE CIVIL ENGINEER; 6 years' experience, structural drafting railroad work and factory construction. P. W. 09, Eng. News.

CIVIL ENGINEER, 10 years' experience, field and office, desires position; structural or reinforced concrete design and estimates: railroad or municipal. P. W. 670, Eng. News, Chicago.

CIVIL ENGINEERING GRADUATE desires position as instrumentman. P. W. 833, Eng. News.

UNIVERSITY GRADUATE, 5 years' experience in exploration, surveying and mapping, together with design and construction inspection of water power developments and tower transmission lines, desires further work. P. W. 844, Eng News.

CIVIL ENGINEER, technical graduate; 24; two years' experience, railroad and maintenance concrete bridge design and construction; position with engineers or contractors; go anywhere, immediately. P. W. 850, Eng. News.

TECHNICAL GRADUATE; 29; eight years' experience detailing, checking, designing structural steel for power houses, mills, office buildings. P. W. 847, Eng. News.

Bridge and Structural

CHIEF DRAFTSMAN, charge 60 men, desires change; age 35; strong personal force; proved executive ability; 14 years' comprehensive experience. P. W. 520, Eng. News.

BRIDGE AND STRUCTURAL ENGINEER with long experience holding responsible positions wishes to change location. P. W. 751, Eng. News.

STRUCTURAL ENGINEER, 18 years' experience in steel concrete, general engineering and building construction, office and field; is open for position. Best of references. Address, M. O. B., 129 N. Pryor St., Atlanta, Ga.

Surveyors

INSTRUMENTMAN, topographer, map, draftsman; thorough experience, own instruments; first class. P. W. 849, Eng. News, Chicago.

FIELD ENGINEER, 12 years' experience, all kinds of surveying, railroad and public works construction; Spanish spoken; Tropics preferred. P. W. 843, Eng. News.

YOUNG MAN, 19, seeks position as rodman, chainman; 2½ years' field experience; will go anywhere. P. W. 835, Eng. News, Chicago.

Draftsmen

CHIEF DRAFTSMAN wants position; 15 years' experience; 5 years in charge of an office of 20 men; has successfully handled over 600 contracts, 50 to 5000 tons; thoroughly experienced in mill and office buildings, coal tipples, bridges and complicated structural work; is a good designer and hustler; leaving of his own volition. P. W. 845, Eng. News.

ENGINEER-DRAFTSMAN, 12 years' experience designing and construction of steam and hydro-electric plants, structural steel, reinforced concrete work, plumbing and estimating, desires position. P. W. 832, Eng. News.

Superintendents, Etc.

SUPERINTENDENT of cement plant, age thirty-six, good construction man or operator, desires change available on short notice. P. W. 776, Eng. News.

ENGINEER desires position. Expert derrick or cableway runner. Massachusetts and New York City licenses. References from all former employers. Location no object. P. W. 815, Eng. News.

GRADUATE ENGINEER, 10 years' experience on construction of various types foundations, bridge piers, retaining walls, bridges, railroad construction, wants job with contractors or engineering firm as superintendent or in charge construction office. Unmarried, go anywhere. P. W. 817, Eng. News.

SALESMAN; five years' experience selling contractors' machinery; graduate Boston Tech.; wishes position selling contractors' supplies or machinery; interview Boston or New York; will go anywhere. P. W. 821, Eng. News.

EXPERIENCED MECHANICAL SALESMAN, 31 years of age; 9 years' selling experience; is at present employed but desirous of making new connections with a manufacturer of similar line; is business getter of proven ability and well known among the larger contractors and engineering concerns in the Eastern States. P. W. 851, Eng. News.

ESTIMATOR, general building construction, graduate civil engineer, 10 years' experience, reliable, hustler, wants change, New York location. P. W. 769, Eng. News.

CONSTRUCTION SUPERINTENDENT; Technically educated; 8 years' experience, pneumatic caissons, tunnels, cofferdams, pile driving earth and rock excavation, plain and reinforced concrete; can organize; reasonable salary, with inducements to start; best references; New York interview. P. W. 848, Eng. News.

AN A-1 STRUCTURAL MAN; 6 years foreman templet shop, 7 years superintendent small shops, 8 years general foreman shops fabricating 20,000 tons per year; open for engagement April 1; best of references. P. W. 830, Eng. News.

REINFORCED STEEL SUPERINTENDENT, experienced beam and girder and mushroom systems desires position. P. W. 836, Eng. News.

SUPERINTENDENT, experienced in highway, park and sewer construction, also in quarrying and crushing stone; estimator and organizer; go anywhere. P. W. 831, Eng. News.

CONSTRUCTION ENGINEER, available; 45, married, absolutely temperate; 15 years' experience on large work; excavation, railroad building, all kinds of concrete and building construction, mill-wrighting, handling and placing heavy machinery. Anywhere. Best of references. P. W. 827, Eng. News, Chicago.

SUPERINTENDENT or general foreman of crushing or mixing plant available Mar. 1; location immaterial; excellent references. P. W. 829, Eng. News, Chicago.

SUPERINTENDENT OR GENERAL FOREMAN, ten years' experience reinforced-concrete buildings; sober, hustling good organizer, highest reference. P. W. 842, Eng. News.

JUNIOR ENGINEER U. S. R. S.; 28; married; 8 years' practical experience, 5 years with the Government on preliminary surveys, estimates, design and construction of canals, lateral systems, reservoirs, earth dams, and appurtenant structures; desires location in West; moderate salary; available April 1; write for references. P. W. 841, Eng. News, Chicago.

SUPERINTENDENT of building; 12 years' experience general building construction; references; go anywhere. P. W. 840, Eng. News, Chicago.

CARPENTER FOREMAN or general foreman; age 30; experienced; references; location immaterial. P. W. 839, Eng. News.

POSITIONS OPEN

CIVIL ENGINEER to take charge of drafting department of a long established company engaged in the fabrication and erection of structural steel; must be competent to design; must be able to direct men. State previous experience, age, nationality, residence and salary desired. P. 808, Eng. News.

COMPETENT QUANTITY SURVEYOR, one capable of taking off quantities and making up estimates on mason work and allied trades. References required. P. 798, Eng. News.

HULL DRAFTSMAN—First class man required. P. 793, Eng. News.

STEAM ENGINEER—Large manufacturing plant, about 20 miles from Buffalo, desires to employ, permanently, a steam engineer of experience, to take charge of 1500 hp. boiler plant. Applicants should have knowledge of methods for obtaining highest coal and boiler efficiency and should be able personally to make repairs to equipment. P. 828, Eng. News.

ESTABLISHED FIRM wants recent graduate civil engineer; opportunity good; energy and patience required; state salary expected. P. 834, Eng. News., Chicago.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

SUPERINTENDENT for malleable iron plant, also general foreman for large motor shop, building motors and generators. Only high grade men need apply. The Toledo Engineering Agency, Toledo, Ohio.

WORKS MANAGER who is master mechanic and with A-1 experience along following lines: Die work of all kinds where used to punch and draw small brass articles; screw machines and their products; stamping; assembling small, delicate mechanism; polishing, plating, etc.; wood working machinery; polishing, enameling, etc. Must be high grade man, in every respect. Applications strictly confidential. R. W. Bixby, Attorney, Lock Box 134, Buffalo, N. Y.

WANTED

WE PAY 20 cents each for "Engineering News," 1914, Jan. 1, 8, Sept. 24, delivered. International Magazine Co., Elizabeth, N. J.

AGENTS AND SALESMEN

ENGINEERING REPRESENTATIVES—Agents with offices in all parts of the United States to represent the Thomas Method of reinforced concrete bridge construction. W. M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

A reputable old established firm in Paris, France, is seeking to represent a first class American manufacturing concern of the machinery branch and hardware trade, suitable for the European market. Possesses really capable and well-organized, experienced selling staff. Only a first class house wishing to give a sole agency considered. Highest credentials and banking references furnished. Reply in first instance with full particulars to James Bement, 63 bis, Rue de la Victoire, Paris, France.

BUSINESS OPPORTUNITIES

TO RENT—Large machinery house in lower part New York City will rent part of store, show window and shipping facilities to manufacturer of machine tools, steam pumps, gas engines or contractors machinery. A fine chance for party wishing New York representation. Price low. B. O. 804, Eng. News.

SALES MANAGER—A Canadian farming implement manufacturing corporation has an opening for experienced sales manager [preferably with experience in above line], to take full charge of sales department; attractive salary and commission contract guaranteed to right party; $2500 cash investment and A1 references required. This is a high grade proposition for a high grade man. Investment fully secured. Correspondence treated strictly confidential. B. O. 805, Eng. News.

FACTORY SUPERINTENDENT—Position vacant for a high grade factory superintendent, with executive ability, to take full charge of all branches of a farming implement factory in Canada; applicant must be able to invest $2500 cash and move at once to Ontario, Canada; contract with good salary guaranteed to right party; investment covered by guaranteed security. B. O. 806, Eng. News.

TREASURER—Large manufacturing corporation, established 1850, location Canada, has a vacancy for a highly efficient business man as secretary and treasurer; party must be able to invest at least $5000 cash and give best of references as to ability and character; contract with good salary guaranteed to right party; investment absolutely secured; answer in full or no attention paid. B. O. 807, Eng. News.

CONTRACTOR, extensively experienced in constructing manufacturing plants and commercial buildings, vicinity of New York, desires engineer as partner; investment $10,000 to $15,000. B. O. 837, Eng. News.

ASSOC. MEM. AM. SOC. C. E. wants to buy civil engineering practice, netting at least $2500 per year, or working interest in larger business. Give price and essential facts, which will be held confidential. B. O. 846, Eng. News.

CIVIL ENGINEER

A.M.A.S.C.E.

26 YEARS' EXPERIENCE—DESIGN AND SUPERVISION.

Railway construction, renewal and appraisal; Railway and highway bridges; Mill buildings; Construction plants; Crusher plants; Quarries; Concrete plants; Water supply; Filters; Miscellaneous. 46 years of age, married, good health.

P.W. 826, ENG. NEWS, CHICAGO

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

N

ADDRESSES

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONCORD Co., 117 Main St., Flemington, N. J. (Tel. 81 L).
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW CO., Wm. B., Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
ROCHESTER—Address P. O. Box 27, Rochester, N. Y.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition. Theo. Smith & Sons Co., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

BAILING PRESS

1 Dederick continuous bailing press.—CONCORD.

BARGES

[Wanted]

Deck barge about 34'x80'x6' steel or wood, in first class condition. Mail full particulars and location to HENRY BICKEL CO., Louisville, Ky.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

BONE MILL

3' Denmead bone mill with screen elevators.—CONCORD.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

CARS

[Standard Gauge]

7—12 yd. 2-way Oliver dump cars with air brakes.—ROCHESTER.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

CRUSHER EQUIPMENT

Stone crusher equipment including boiler, engine, crusher and 115 ft. American Steel derrick, complete. Will sell all or part.—KANAWHA LAND CO., Charleston, W. Va.

DERRICKS

1 Steel stiff leg, 70' boom: 1 steel guy, 70' boom, 25 tons cap.; 1 steel traveling, 45' boom.—GIVIN.

15' traveling derrick.—CONCORD.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

1—20" Hydraulic dredge, complete with Pontoons, pipe line, etc.—ROCHESTER.

DRILLS, ROCK

6 Ingersoll, type F-24, 2 class "C" Little Giants.—BECKWITH.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

ENGINES, STEAM

75-H.P. Diesel, cyl. 14x24, excellent condition.—CONCORD.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

FROGS & SWITCHES

11 split switches, 10 stiff keyed frogs, 15 low century switch stands, 18-15 ft. guard rails.—CONCORD.

GENERATORS

C. &. C. 50-K.W. belted type generator, 650 revolutions, 230 volts, LaRoche Switchboard.—CONCORD.

HAMMERS

2 McKiernan-Terry steam No. 7.—PIPE.

HEATERS, FEED WATER

Several types, capacities up to 1200 HP.—NEW RIVER.

2 Blake 150 H.P. vertical water feed heaters.—CONCORD.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33" diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

1 3 drum Flory hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. with boilers; 1 Mead & Morrison swinger D.C.S. D. 6½x8, practically new; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

TWO HUNDRED FIFTEEN hoists. Immediate delivery. 3- drum, 7x10, 8¼x10, 9x10, Skeleton or boiler.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$125 G. & B. 18" Precise Y level, new, $85; $240 H. & Brightly Engrs. transit, arc, good, $137. Guaranteed. 99 others. Rentals, repairs, supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS.

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

9x14 Porter and 10x16 Baldwin.—BRADEN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—No. 1 Standard Browning with Hayward bucket, used about 6 months, or will exchange for No. 1 Thew shovel or any other make equally as good.—WHITMORE, RAUBER & VICINUS, Rochester, N. Y.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE.

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka with 3 H.P. D.C. motor, continuous; 2 Austin cubes with engines and boilers on steel skids, and 2—2½ Smiths with engines on wheels.—PIPE.

PILING, SHEET STEEL

76 pcs. Lackawanna 14" Arched Web, 32' long; used once. Also several other lots.—GRIMSHAW.

About 100 pcs. 28', fairly good, $25 ton f.o.b. cars, Fort Worth, Tex.—F. N. GRAVES, Pur. Agent, Forth Worth, Texas.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

1 No. 8, 1 No. 9, 1 No. 10 Cameron.—MARINE.

2 Davidson Simplex 9x9x11.—MARINE.

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE

1 No. 486 Emerson, 4" suc., 3" dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

2 Worthington 1,500,000 gal. Horizontal, Duplex Power, 14" diameter, 10" stroke.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

3 Underwriters fire pumps cheap.—WHITNEY.

What is best offer before Feb. 5 on two 20x12x16 Fairbanks Morse Duplex Underwriters pumps with trimmings? Steam header included with fittings; used ten years.—ROYAL C. WISE, 9 S. Clinton St., Chicago, Ill.

Stilwell-Bierce pump, 7x4½x10, and 2 Deane Steam pumps one No. 43,213, size 6x5¾x6 and one, 1½x2¾x4.—CONCORD.

2 Emerson steam No. 4 and 1 Pulsometer No. 7.—PIPE.

RAILS

100 tons 85 lb. steel rails, A. S. C. E., Sec. No. 235, with joints. Hunt's report on request.—CONCORD.

ROAD ROLLERS

Macadam roller recently overhauled. A1 condition.—write F. S. 779, Eng. News.

[Wanted]

Asphalt roller. Send description and price to W. 780, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN

1—1¼ yd. Vulcan steam shovel.—ROCHESTER.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

STRUCTURAL STEEL

350 12" I Beams 20' to 30' long.—PIPE.

TANKS

3000-gal. oil tank, 20 ft. 4 in., 8 ft. diam.—CONCORD.

TRAVELING CRANES

1 15-ton electric 36' 6" span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

Maris Bros. 10-ton air crane, 72' 5" span.—CONCORD.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

TURBINES

2 Houston 44" Vertical, with beveled gears, shafting, etc. —WATER & LIGHT COMMISSION, Fergus Falls, Minn.

WELL DRILLING MACHINES

1 No. 3½ Keystone well drilling machine.—ROCHESTER.

WHEELS, CAR

72 pairs 33-in. std. gage car wheels on axles.—CONCORD.

Dredge Pipe for Sale

Pontoon and Land Pipe

20 inches and 22 inches in diameter. Also casks, pontoons, elbows and valves. In good condition, will sell at one-half value. Inquire, P. O. Box 27, Rochester, N. Y.

Shave Your Handling Costs to the minimum consistent with safety, by using

—DOBBIE—

Derricks and Hoists. Our line covers everything for the handling of material—and we build special machinery for special uses. Consult us. Write for new Catalog.

DOBBIE FOUNDRY AND MACHINE CO.
NIAGARA FALLS, N. Y.
Branch Stores, Pittsburgh and New York
C. T. Patterson Co., New Orleans; Geo. B. Carpenter & Co., Chicago

WESTERN

Earth and Stone Handling Machinery

Air Dump Cars—Hand Dump Cars—Spreader Cars—Scrapers—Road Machinery—Portable Rock Crushers—Dump Wagons—Elevating Graders. Wagon Loaders and Ditchers. **Glad to send Catalogs.**

Western Wheeled Scraper Co., Farnsworth Ave. Aurora, Ill.

FOR SALE

Air Reheaters
Blowers and Fans
Buckets
Cars
Car Tipple
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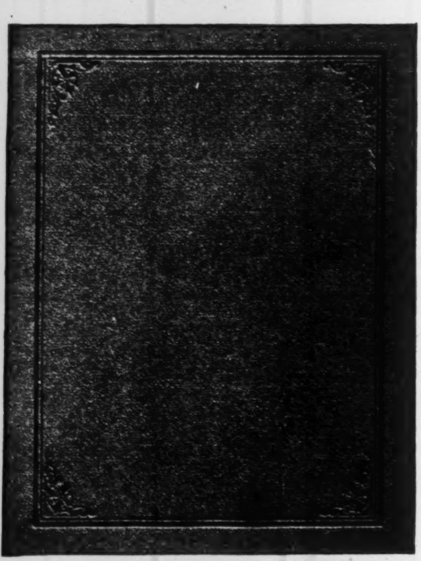

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ENGINEERING NEWS, 10th AVE. at 36th ST., NEW YORK

Bids received until Feb. 25, 1915.

Water Meters and Machinery

BUREAU OF ENGINEERING.
DEPARTMENT OF PUBLIC WORKS.
Chicago, February 3, 1915.

Sealed proposals will be received by the City of Chicago until 11 a.m. Thursday, February 25th, 1915, at Room 406 City Hall, for manufacturing and delivering to the City of Chicago Water Meters, made according to designs prepared by the City of Chicago. The following quantities of water meters are desired:

1,500 ¾-inch meters.
2,000 1-inch meters.
750 1½-inch meters.
750 2-inch meters.

The city will furnish detail drawings and one set of patterns of each meter. The contractor is to turn over to the city upon completion of his contract special machinery, tools, dies, jigs, etc., used in the manufacture of the meters, according to plans and specifications on file in the office of the Department of Public Works of said city, Room 406 City Hall.

Proposals must be made out upon blanks furnished at said office, and be addressed to said department, indorsed "Proposals for Water Meters," and be accompanied with One Thousand Dollars in money or a certified check for the same amount on some responsible bank located and doing business in the City of Chicago, and made payable to the order of the Commissioner of Public Works.

The Commissioner of Public Works reserves the right to reject any or all bids.

No proposal will be considered unless the party offering it shall furnish evidence satisfactory to the Commissioner of Public Works of his ability, and that he has the necessary facilities, together with sufficient pecuniary resources, to fulfill the conditions of the contract and specifications provided such contract should be awarded to him.

Companies or firms bidding will give the individual names as well as the name of the firm with their address.

L. E. McGANN,
Commissioner of Public Works.

⁂

Bids received until Mar. 1, 1915.

Resurfacing Stone Roads

Mt. Holly, N. J.

Sealed proposals will be received by the Road Committee of the Board of Chosen Freeholders of the County of Burlington, New Jersey, at the County Collector's Office, Mount Holly, N. J., on

MONDAY, MARCH 1st, 1915,

at 11:30 A.M., for resurfacing several stone roads in Burlington County.

Specifications and information may be obtained from James Logan, County Engineer, Mount Holly, N. J.

By order of the Board,
JOSEPH S. BRIGHT, Chairman,
JOHN C. DUDLEY,
JOHN LOGAN,
Committee.

S. M. McFARLAND, Supervisor,
JAMES LOGAN, County Engineer,
A. I. DAVIS, Director,
HARRY HAWKINS, JR., Clerk.

⁂

Bids received until Mar. 5, 1915.

Notice to Drainage Contractors

Elbow Lake, Minn.

On March 5th, 1915, at the Court House in Elbow Lake, Minn., the undersigned will sell the following two ditch jobs

Job No. 1, County Ditch No. 21.

Open ditch, length, feet	3,000
Tiled " " "	49,196

Job No. 2, County Ditch No. 18.

Open ditch, length, feet	5,700
Excavation, cu.yds.	14,151
Tiled ditch, length, feet	2,000

Specifications may be seen at the office of Co. Aud. and also at the office of J. E. Cole, engineer in charge, Morris, Minn.

Those interested send to County Auditor for detailed information.

C. M. NELSON, Co. Aud.,
Grant County, Minn.

Bids received until Feb. 26, 1915.

Pipe Sewers and Disposal Works

Mt. Morris, N. Y.

Sealed proposals will be received by the Municipal Board of the Village of Mount Morris, N. Y., until 12 o'clock, noon, on the 26th day of February, 1915, for the construction of about nine miles of pipe sewers and disposal works, and appurtenances.

Plans may be seen and specifications obtained at the office of the Board at Mount Morris, N. Y., or at the office of Charles C. Hopkins, Engineer, Rochester, N. Y.

The Board hereby reserves and has the right to reject any or all bids, or to accept any that in its judgment will be for the best interests of the Village.

A surety bond satisfactory to the Board in form and amount will be required of him to whom the contract may be awarded.

A certified check, made payable to the order of the Board of Trustees of Mount Morris, N. Y., to the amount of $2000 must be deposited by each bidder and accompany his bid as a guarantee that in case the contract is awarded to him he will, within seven days thereafter, execute such contract.

Bids will be received for the whole work or for the pipe sewers or disposal works separately, and must be sealed and addressed to the Municipal Board, care of the Village Clerk, Mount Morris, N. Y., and marked on the outside of the envelopes "proposal for Sewerage System."

THE VILLAGE OF MOUNT MORRIS,
R. W. WHITE
J. F. DONOVAN
J. C. DICKEY
Municipal Board.

C. C. HOPKINS, Engineer,
349 Cutler Bldg., Rochester, N. Y.

⁂

Bids received until Mar. 24, 1915.

High Duty Water Works Pumping Engine

City of Perth Amboy, N. J.

Sealed proposals will be received at the office of the Board of Water Commissioners of the City of Perth Amboy, N. J., at the City Hall, at 8 o'clock p.m., March 24th, 1915, for furnishing and erecting one twelve-million-gallon pumping engine, in accordance with plans and specifications on file in the office of the Clerk of the Board of Water Commissioners in the City Hall, where copies may be obtained. Said engine to be placed in the pump house at Runyon, N. J., as specified, and such bids to include all accessories usually accompanying an engine of the class bid upon, together with steam and water connections, the whole ready and in place. In comparing bids consideration will be given to special adaptability to conditions met, merit of design and economy, as well as first cost.

Each bid must be accompanied by plans sufficiently in detail to give a clear idea of the sizes and arrangement of the principal parts and by specifications giving a description of the engine, and stating the duty to be guaranteed, length of time required for completion, etc. Each bid must be accompanied by a certified check for an amount equal to five (5) per cent. of the amount of the bid.

The right is reserved to reject any or all proposals.

PETER KROEGER, Clerk.

S. J. MASON, Engineer.

⁂

Bids received until Mar. 5, 1915.

Concrete Pavement and Bituminous Surface

Roselle Park, N. J.

Sealed proposals will be received by the Mayor and Council of the Borough of Roselle Park, N. J., for concrete pavements and appurtenances at eight thirty P.M. Friday, March fifth, 1915.

Plans and specifications may be obtained at the office of the undersigned between the hours of eight thirty A.M. and 12 M. upon payment of a deposit of $10.00, which will be refunded upon return of same.

A certified check for $500.00 must accompany each proposal.

The Council reserves the right to reject any or all proposals as may be deemed best for the interests of the Borough.

W. H. LUSTER, Borough Engineer,
286 N. Broad St., Elizabeth, N. J.

Bids received until Mar. 1, 1915.

Animal Building

Rosebank, N. Y.

Sealed proposals for Animal Building, for the Port of New York, at the Quarantine Station, Rosebank, Staten Island, N. Y., Construction, Heating, Plumbing and Drainage and Gas Piping and Electric work, will be received by Dr. Joseph J. O'Connell, Health Officer of the Port of New York, Quarantine Station, Staten Island, N. Y., until 11:30 A.M. March 1, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of $300.00 for Construction Work, $30.00 for Heating Work, $70.00 for Plumbing, Drainage and Gas Piping and $50.00 for Electric Work. Contractors to whom awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification Nos. 2133, 2148, 2149 and 2150. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the office of the Health Officer, Port of New York, Rosebank, Staten Island, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

⁂

Bids received until Mar. 2, 1915.

Proposals for Road Oil

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Tuesday, March 2nd, 1915, at 12 o'clock noon, for furnishing and delivering F.O.B. cars, Wilkes-Barre, Pennsylvania, Forty Thousand (40,000) gallons of road oil, more or less. The bidder will quote prices by the barrel, tank car or otherwise and will plainly give the name or brand of oil bid on, and must submit samples with proposal. Proposals will be endorsed "Proposals for Road Oil" and addressed to Fred H. Gates, City Clerk, and each bid must be accompanied by a certified bank check of the bidder in the sum of Two Hundred Dollars ($200.00), conditioned upon entering into a contract with the City, otherwise no action will be taken on the bid submitted. The City reserves the right to reject any or all bids received.

CHARLES N. LOVELAND, Superintendent,
Department of Streets and Public Improvements.

⁂

Bids received until Feb. 25, 1915.

Section H—Dorchester Tunnel

City of Boston, Mass.

Sealed bids for building Section H, Dorchester Tunnel, will be received by the undersigned until 12 o'clock noon of Thursday, February 25, 1915. The section is located in Dorchester avenue between Old Colony avenue and Woodward street, and is about 2,200 feet long. The structure is to be mainly of reinforced concrete, and consists of a single span double track tunnel to be built by the cut and cover method. The work also includes a pump well, an emergency exit, and sewer changes. Specifications and forms of contract can be obtained at 15 Beacon street, ninth floor. The right to reject any and all bids and to award the contract as is deemed to be for the best interest of the City of Boston is reserved.

By order of the BOSTON TRANSIT COMMISSION,
B. LEIGHTON BEAL, Secretary.

⁂

Attention of Large Contractors

is called to an opportunity of which full information can be obtained by writing

JOHN L. ROPER LUMBER COMPANY,
Norfolk, Va.

Bids received until Feb. 25, 1915.

Concrete Bridge

DEPARTMENT OF PUBLIC WORKS
Office, 216 City Hall
Philadelphia, February 8th, 1915.

Sealed Proposals, endorsed "Bids for the construction of a concrete bridge and its approaches to carry Broad Street over the joint four track railroad, South Philadelphia Track Elevation," and addressed to the undersigned, at Room 216 City Hall, will be received until 12 o'clock, noon, February 25th, 1915, for

CONTRACT No. 201. Broad Street Bridge over the joint four track railroad, South Philadelphia Track Elevation.

Plans for the above work will be exhibited in the office of Bureau of Surveys, Philadelphia.

Specifications and blank forms upon which bids must be made, will be furnished upon application to the Chief Engineer, Room 416 City Hall.

Bidders must be skilled and regularly engaged in the class of work bid for.

Bids will be opened and read in Room 225 City Hall, at noon, on date above mentioned.

No bid will be considered unless accompanied by a certificate from the City Solicitor that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81, West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city and the various Railroad Companies.

M. L. COOKE, Director.

⁂

Bids received until Mar. 12, 1915.

Proposals for Street Paving

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Friday, March 12th, 1915, at 12 o'clock Noon, for curbing and paving streets in the City of Wilkes-Barre, Pennsylvania. Bids to be submitted in accordance with specifications, copies of which may be had upon application to B. K. Finch, City Engineer, upon the payment to him of the sum of Five Dollars ($5.00), which will be refunded to bidders, provided specifications are returned to the City Engineer on or before March 15th, 1915. Bids to be submitted as follows:—For sheet asphalt in two sections, totaling about 40,000 square yards; For vitrified brick in four sections totaling about 46,000 square yards; For cobblestone in one section of 600 square yards; For vitrified brick and macadam in one section of 7,500 square yards, together with the necessary red stone, blue stone or concrete curbing. Certified bank check for Five Hundred Dollars ($500.00) to accompany each bid except for cobblestone, which will be for One Hundred Dollars ($100.00). Proposals to be endorsed "Proposals for curbing or paving" and addressed to Fred H. Gates, City Clerk. The City Council reserves the right to reject any or all bids received.

CHARLES N. LOVELAND, Superintendent,
Department of Streets and Public Improvements.

⁂

Bids received until Mar. 5, 1915.

Supply of True Portland Cement

SEASON 1915.

GREATER WINNIPEG WATER DISTRICT.

Sealed Tenders addressed to the undersigned will be received up to Noon March 5th, 1915, for the supply of from 60,000 to 150,000 barrels of True Portland cement.

Specifications and Form of Tender may be obtained and Form of Contract may be inspected at the Offices of the District.

The lowest or any tender not necessarily accepted.

S. H. REYNOLDS,
Chairman of Commissioners.

901 Boyd Building, Winnipeg, Man.
Date February 1st, 1915.

Bids received until Feb. 23, 1915.

Furnishing Cement

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
Springfield, Illinois.

Notice is hereby given that sealed proposals for furnishing approximately 235,500 barrels of cement to be used in State Aid Road construction for the year of 1915 will be received at the office of the State Highway Commission, Springfield, Illinois, until 3 o'clock P.M. February 23, 1915.

All proposals must be made on forms furnished by the State Highway Commission, without any addition or modification whatsoever.

All proposals otherwise submitted will be rejected as irregular.

The State Highway Commission reserves the right to reject any or all proposals.

Full information may be obtained by writing direct to the State Highway Commission, Springfield, Illinois.

STATE HIGHWAY COMMISSION,
By WM. W. MARR,
Chief State Highway Engineer.

January 30, 1915.

⁂

Bids received until Mar. 1, 1915.

Flood Pump

Ford City, Pa.

Sealed proposals are requested by the Borough of Ford City, Pa., for pipe and fittings as follows:

1—20″ Std. Gate Valve, outside screw and yoke drilled Std., split on center line. 1—20″ Copper expansion joint, one end drilled Std., other end dia. flange 26½″, dia. bolt circle 24¼″, 12—1⅜″ holes.

1—18″x24″ Cast iron increaser 3′ 8″ long, 18″ discharge, dia. of flange 24″, dia. of bolt circle 22¼″, 12—1⅜″ holes.

1—24″ Horizontal flanged check valve. 1—24″ Cast iron Std., flanged long rad. ell. 1 joint of Std. cast iron pipe, 24″x12′ 0″, flange and spigot. 7—Joints of Std. cast iron pipe 24″x12′ 0″, bell and spigot. All pipe fittings and drillings to be Std. except where otherwise noted.

Proposals will be received by D. O. Crouch, Secty., until 7:30 P.M. March 1st, 1915.

FORD CITY BOROUGH, PA.,
D. O. CROUCH, Secretary.

⁂

Bids received until Apr. 13, 1915.

Automatic Valves and Check Valves

DEPARTMENT OF WORKS.
Toronto, Ont.

Tenders will be received by registered post only, addressed to the Chairman of the Board of Control, City Hall, Toronto, Canada, up to noon on Tuesday, April 13th, 1915,

For the Supply of
Automatic Valves and Check Valves.

Specifications and Tender Form for the foregoing may be obtained upon application at Room 12, Purchasing and Accounting Section, of the Department of Works, City Hall, Toronto.

Envelopes containing tenders must be plainly marked on the outside as to contents.

The usual conditions relating to tendering as prescribed by City By-law must be strictly complied with, or the tenders may be declared informal.

Tenderers shall submit with their tenders the names of two personal sureties, approved by the City Treasurer, or in lieu thereof, the bond of a guarantee company, approved as aforesaid.

The lowest or any tender not necessarily accepted.

T. L. CHURCH (Mayor),
Chairman, Board of Control.

Toronto, February 8th, 1915.

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U. S. ENGINEER OFFICE, Trust Company Building, Post-office and Tremont Sts., Galveston, Texas, January 25, 1915.—Sealed proposals for construction of motor dredge tender, "La Porte," will be received at this office until 12 o'clock, noon, February 23, 1915, and then publicly opened. Information on application. C. S. RICHE, Lt. Col., Engineers.

U. S. ENGINEER OFFICE, Cincinnati, O., January 27, 1915.—Sealed proposals for constructing and delivering two steel hull sternwheel towboats "Cayuga" and "Ottawa" will be received at this office until 2 p.m., February 26, 1915, and then publicly opened. Information on application. H. JERVEY, Lt. Col., Engrs.

Bids received until Mar. 2, 1915.

Building Extension at State Hospital

Trenton, N. J.

Sealed proposals will be received at the office of the Governor, Trenton, N. J., until twelve o'clock noon on Tuesday, March 2nd, 1915, for furnishing all labor and material necessary for the further extension of the House of Detention for Convict and Criminal Insane at the State Hospital, Trenton, N. J., in accordance with plans and specifications on file in the office of the Commissioner of Charities and Corrections, State House, Trenton, N. J.

Each bidder must accompany his proposal with a certified check for ten per centum of the amount of his proposal, payable to his order, properly endorsed, which will be returned to the unsuccessful bidder immediately following the award of the contract.

Proposals must be enclosed in envelopes sealed and marked "Proposals for the further extension of the House of Detention for Convict and Criminal Insane at the State Hospital, Trenton."

E. I. EDWARDS,
Secretary State House Commission.

⁂

Bids received until Mar. 10, 1915.

Canal and Conduit. Electrical Pumping Machinery

SALEM AND BEVERLY WATER SUPPLY BOARD

Sealed bids will be received at City Hall, Salem, Massachusetts, at ten o'clock, March 10, 1915, for the construction of additional works for water supply from the Ipswich River. Plans may be seen, and the form of proposal, specifications, contract and bond may be obtained after February 17, 1915, at the City Hall, Salem, and at the office of Hazen, Whipple & Fuller, consulting engineers, 30 East 42nd Street, New York City.

The work will be divided into two parts: The first contract includes the construction of a dredge, 120,000 cubic yards of excavation, 2870 feet of conduit and accessories. The second contract covers an electric motor driven centrifugal pump, a steam turbine driven generator, transmission line, transformers, switchboard, and wiring.

N. MATTHEWS.
P. J. KELLEY.
J. W. BLACKMER.

Salem, February 10, 1915.

⁂

Bids received until Mar. 17, 1915.

Sanitary Sewers

Butte, Mont.

Sealed proposals for the construction of 13 miles of 8″, 10″ and 12″ sanitary sewers for the South Side will be received by John C. Driscoll, City Clerk, until 5 o'clock P.M. Wednesday, March 17, 1915. Certified check for 10% of the amount bid must accompany all proposals.

Plans and specifications may be obtained at the office of the Commissioner of Public Works upon the deposit in the sum of $20.00, same to be refunded when plans and specifications are returned in good condition.

W. J. FLOOD,
Commissioner of Public Works.

⁂

Road Oil

Atlantic Highlands, N. J.

BIDS WANTED for two cars good road oil applied on streets. Address Borough of Atlantic Highlands, N. J.

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U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., February 13, 1915.—Sealed proposals for furnishing and delivering 32,000 barrels of American Portland Cement will be received at this office until 12 M., February 26, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Engrs.

U. S. ENGINEER OFFICE, Room 707, Army Building, New York, N. Y., Feb. 11, 1915.—Sealed proposals for 20 tanks, from 2,250 to 5,700 gals. capacity, for Philippine Islands, will be received at this office until 12 M., March 9, 1915, and then publicly opened. Information on application. S. W. ROESSLER, Col., Engrs.

Bids received until Feb. 26, 1915.

Garbage Disposal Plant Equipment

Dayton, Ohio.

Sealed proposals will be received at the office of the City Purchasing Agent, Room 11, City Bldg., Dayton, until 12 o'clock noon of Friday, February 26th, 1915, for the furnishing of equipment for a garbage disposal plant.

Detailed information concerning the work may be obtained at the office of the Director of Public Service. The city reserves the right to reject any and all bids.

FOWLER S. SMITH,
City Purchasing Agent.

* * *

Concrete Roads

I want the names of contractors in Southern Illinois, or Missouri, to figure on six miles of concrete roads, for an estate. C. L. 874, Engineering News, Chicago.

* * *

SEALED PROPOSALS will be received at the Office of the Lighthouse Inspector, Philadelphia, Pa., until 2 o'clock p.m., March 11, 1915, and then opened, for furnishing and depositing 1,000 tons of broken stone and 2,100 tons of riprap at Brandywine Shoal Light Station, Delaware Bay. Blank proposals and particulars may be obtained by addressing the above office.

U. S. ENGINEER OFFICE, 602 Burke Bldg., Seattle, Wash., Feb. 3, 1915.—Sealed proposals for pumping plant for Lake Washington Canal locks will be received at this office until 12 noon, March 15, 1915, and then publicly opened. Information on application to U. S. Engr. Office, Seattle, Wn., Chicago, Ill., or New York, N. Y. J. B. CAVANAUGH, Maj., Engrs.

U. S. ENGINEER OFFICE, Wilmington, N. C., Feb. 10, 1915.—Sealed proposals for dredging in Neuse River, waterway from Pamlico Sound to Beaufort Inlet, and Beaufort Harbor, N. C., will be received at this office until 12 M., Mar. 9, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engineers.

PROPOSALS FOR RIVER BANK PROTECTION—U. S. Engineer Office, Customhouse, St. Louis, Mo., February 8, 1915.—Sealed proposals for 10,000 linear feet of river bank protection, to include materials and work, will be received at this office until 11 A.M., March 10, 1915, and then publicly opened. Information on application. C. McD. TOWNSEND, Col., Engineers.

U. S. ENGINEER OFFICE, New London, Conn., Feb. 1 1915.—Sealed proposals for dredging in the Connecticut Riv below Hartford, will be received here until 2 o'clock p.m. Mar. 18, 1915, and then publicly opened. Information on application. G. B. PILLSBURY, Major, Engrs.

U. S. ENGINEER OFFICE, Charleston, S. C., February 17, 1915.—Sealed proposals for dredging in Ashley River, S. C. will be received at this office until noon, March 19, 1915, and then publicly opened. Information on application. G. A YOUNGBERG, Major, Engrs.

DEPARTMENT OF THE INTERIOR, U. S. RECLAMATION SERVICE, Washington, D. C., Feb. 9, 1915.—Sealed proposals will be received at the office of the United States Reclamation Service, Provo, Utah, until 2 o'clock P.M., March 10, 1915, for construction involving about 12,800 yards of excavation and 2100 yards of reinforced concrete. The work is located near Payson City, Utah, on the San Pedro, Los Angeles and Salt Lake R.R. and the Tintic Branch of the Denver and Rio Grande R.R. For particulars address the United States Reclamation Service, Provo, Utah, or Washington, D. C. A. P. DAVIS, Director and Chief Engineer.

U. S. ENGINEER OFFICE, First District, New York City, Room 710, Army Building, 39 Whitehall Street, New York, N. Y., January 23, 1915.—Sealed proposals for dredging in Port Chester Harbor, N. Y., will be received at this office until 12 M., February 23, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Engrs.

U. S. ENGINEER OFFICE, Savannah, Ga., January 25, 1915—Sealed proposals for furnishing and placing stone for raising low places in jetty at Savannah Harbor, Ga., will be received at this office until 12 Noon (Eastern Standard Time) February 24, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Col., Engrs.

U. S. ENGINEER OFFICE, Galveston, Texas, Feb. 2, 1915.—Sealed proposals for dredging at Port Aransas, Texas, and in the Channel from Aransas Pass to Corpus Christi, Texas, will be received at this office until 12 o'clock noon, March 3, 1915, and then publicly opened. Information on application. C. S. RICHE, Lieut. Col., Engineers.

U. S. ENGINEER OFFICE, Galveston, Texas, February 15, 1915.—Sealed proposals for jetty and dike work at Aransas Pass, Texas, will be received at this office until 12 M., March 16, 1915, and then publicly opened. Information on application. C. S. RICHE, Lieut. Colonel, Engineers.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 20 years' practical experience as a designer in various branches of mechanical engineering, capable of independent investigation of mechanical problems, desires position. "Exceptional ability" one reference says. P. W. 838, Eng. News.

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 881, Eng. News.

MECHANICAL ENGINEER, 37 years old, able, experienced, resourceful, now mechanical superintendent and assistant manager large manufacturing plant, desires position vicinity of New York. P. W. 887, Eng. News.

MECHANICAL ENGINEER, 35, fifteen years' experience, industrial engineering, structural steel, concrete, estimating and inspecting, holding responsible position, desires change; salary $2400. P. W. 890, Eng. News.

Civil Engineers

ENGINEER, 14 years' experience; surveys on railroad location and construction, irrigation, drainage, United States Geological, subdivisions, flood prevention and sewers. Flitman, 7 West Harrison, Danville, Ill.

CIVIL ENGINEER; graduate, 12 years' practical experience with consulting engineers and utility companies; water works and other utilities; investigations, reports, design, construction, appraisals. References. P. W. 825, Eng. News.

CIVIL ENGINEER, technical graduate. Three years' experience in the construction of water supply and sewage disposal plants, general building construction, pipe lines, and steel structures, as engineer and draftsman, desires position with engineer or contractor. At liberty after March 1. P. W. 803, Eng News.

YOUNG MAN—Technical graduate, 3 years' experience office and field, well recommended. Engineer or contractor. P. W. 799, Eng. News.

GRADUATE CIVIL ENGINEER; 6 years' experience, structural drafting railroad work and factory construction. P. W. 809, Eng. News.

CIVIL ENGINEERING GRADUATE desires position as instrumentman. P. W. 833, Eng. News.

UNIVERSITY GRADUATE, 5 years' experience in exploration, surveying and mapping, together with design and construction inspection of water power developments and tower transmission lines, desires further work. P. W. 844, Eng News.

CIVIL ENGINEER, 36. with broad field and office experience in railroad, hydrographic, dredging, water supply and building construction; thorough knowledge of drafting and designing; first-class references; immediately available. P. W. 856, Eng. News.

STUDENT OF INSTITUTION OF CIVIL ENGINEERS (England), four years' drawing-office experience; will consider any offer; highest references. P. W. 865, Eng. News.

CIVIL ENGINEER, eight years' experience on heavy construction; railroad, city and street work; graduate of leading technical school. P. W. 867, Eng. News.

GRADUATE CIVIL ENGINEER, 24, desires position; two years' experience steel structures and concrete. P. W. 868, Eng. News.

CIVIL ENGINEER; 10 years' experience, field and office, desires position; structural or reinforced concrete design and estimates; railroad or municipal. P. W. 670, Eng. News, Chicago.

CIVIL ENGINEER, technical graduate, three years' general experience on steel, reinforced concrete, and railway construction, desires position with opportunity for advancement; excellent references. P. W. 871, Eng. News.

GRADUATE ENGINEER, 26, experienced in street and highway work, also structural detaining and design. P. W. 884, Eng. News.

CIVIL ENGINEER, 30; single; eight years drainage, mining, municipal, structural, etc.; now in Southwest. P. W. 886, Eng. News.

Bridge and Structural

BRIDGE AND STRUCTURAL ENGINEER with long experience holding responsible positions wishes to change location. P. W. 751, Eng. News.

STRUCTURAL DETAILER and checker, technical graduate; five years' experience; references; salary desired, $125 per month. P. W. 859, Eng. News.

STRUCTURAL ENGINEER; experienced man with technical training and business experience; traveled abroad England and Continental Europe; desires position with company requiring the services of a technical man; references; no agencies. P. W. 883, Eng. News.

Surveyors

INSTRUMENTMAN, topographer, map, draftsman; thorough experience, own instruments; first class. P. W. 849, Eng. News, Chicago.

FIELD ENGINEER, 12 years' experience, all kinds of surveying, railroad and public works construction; Spanish spoken; would work in tropics. P. W. 882, Eng. News.

Draftsmen

CHIEF DRAFTSMAN wants position; 15 years' experience; 5 years in charge of an office of 20 men; has successfully handled over 600 contracts, 50 to 5000 tons; thoroughly experienced in mill and office buildings, coal tipples, bridges and complicated structural work; is a good designer and hustler; leaving of his own volition. P. W. 845, Eng. News.

DRAFTSMAN, specialist on topographical and geological map work, 10 years' railroad experience, lettering artist, desires position. P. W. 870, Eng. News.

DRAFTSMAN, 27, technical; 10 years' experience mechanical, electrical; expert letterer and neat worker; power and substations; light and power installations. P. W. 855, Eng. News.

Superintendents, Etc.

ENGINEER desires position. Expert derrick or cableway runner. Massachusetts and New York City licenses. References from all former employers. Location no object. P. W. 815, Eng. News.

GRADUATE ENGINEER, 10 years' experience on construction of various types foundations, bridge piers, retaining walls, bridges, railroad construction, wants job with contractors or engineering firm as superintendent or in charge construction office. Unmarried, go anywhere. P. W. 817, Eng. News.

ESTIMATOR, general building construction, graduate civil engineer, 10 years' experience, reliable, hustler, wants change, New York location. P. W. 769, Eng. News.

SUPERINTENDENT, experienced in highway, park and sewer construction, also in quarrying and crushing stone; estimator and organizer; go anywhere. P. W. 831, Eng. News.

CONSTRUCTION ENGINEER, available; 45, married, absolutely temperate; 15 years' experience on large work; excavation, railroad building, all kinds of concrete and building construction, mill-wrighting, handling and placing heavy machinery. Anywhere. Best of references. P. W. 827, Eng. News, Chicago.

SUPERINTENDENT or general foreman of crushing or mixing plant available Mar. 1; location immaterial; excellent references. P. W. 829, Eng. News, Chicago.

SUPERINTENDENT of building; 12 years' experience general building construction; references; go anywhere. P. W. 840, Eng. News, Chicago.

CARPENTER FOREMAN or general foreman; age 30; experienced; references; location immaterial. P. W. 839, Eng. News.

ENGINEER-SUPERINTENDENT understands connection between work and profits; deep water foundations, dams, retaining walls, docks, piers and water-works; plant layout and office detail. P. W. 853, Eng. News.

YOUNG RAILROAD MAN, difficult traffic problems, general maintenance, design and superintendence of heavy construction; good executive. P. W. 854, Eng. News.

SUPERINTENDENT AND ESTIMATOR on all trades entering into every class of construction; graduate C. E.; 20 years' active experience. P. W. 857, Eng. News.

GRADUATE ENGINEER, three years' experience in railway maintenance and construction, timekeeping and concrete inspection; eight months road surveys and topographic work, four months in full charge; three months factory construction; available immediately. P. W. 863, Eng. News.

ESTIMATOR (contractors') wishes position in that capacity with large contracting firm; am also reinforced-concrete and structural-steel engineer, with several years' experience as superintendent of construction; am scientific-school graduate with C. E. degree; can furnish character and ability references. P. W. 864, Eng. News.

SUPERINTENDENT for reinforced and cinder concrete; 15 years' experience, nine years with the present firm; have had charge of some of the largest buildings in the East. P. W. 866, Eng. News.

ESTIMATOR, general building construction, graduate civil engineer, 10 years' experience, reliable, hustler, wants change, New York location. P. W. 769, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN, ten years' experience reinforced-concrete buildings; high experience with chutes; sober, hustling; good organizer; highest reference. P. W. 852, Eng. News.

COLLECTOR AND ASSISTANT CASHIER for a modern equipped water company; two years' experience in line construction and handling of men, two years in bookkeeping and salesmanship; plumber by trade; capable of taking full charge of water plant in both field and office; best of references. P. W. 875, Eng. News, Chicago.

CONSTRUCTION ENGINEER; 16 years' experience, buildings, bridges, massive concrete, difficult foundations; good references. P. W. 885, Eng. News.

CONSTRUCTION AND SALES ENGINEER, seven years' experience handling and selling building supplies, engineering equipment to architects, engineers and contractors, wants position with firm where man of ability will be appreciated; will cover any territory or will represent firm wishing to open office in Worcester. Suite 1, 2 Downing St., Worcester, Mass.

TIMEKEEPER AND OFFICE MAN desires position; reference furnished. P. W. 876, Eng. News.

STEAM SHOVEL CRANEMAN desires employment; any make machinery; any location. P. W. 877, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN; 15 years' experience in office and factory building; dam, power and filtration plant construction, Government and city work; contractors' plants erected and maintained at low cost; thorough knowledge of carpentry, steel and iron work. P. W. 888, Eng. News.

SALES-ENGINEER; five years traveling Eastern half of the United States, selling and promoting various building materials; open for engagement Mar. 1. P. W. 889, Eng. News.

POSITIONS OPEN

COMPETENT QUANTITY SURVEYOR, one capable of taking off quantities and making up estimates on mason work and allied trades. References required. P. 798, Eng. News.

POSITION open in Metropolitan district for salesman of waterproofings and technical paints. Address in confidence, giving full information regarding experience, age and salary expected, P.860, Eng. News.

WANTED—By a large structural steel company located in the Middle West, a sales representative familiar with the trade in Ohio, Indiana and Kentucky, a resident of Cincinnati preferred; state full particulars, experience, references and salary expected in first letter. P. 861, Eng. News, Chicago.

WITH WHAT SUCCESS can you interview owners and engineers, buy materials, collect bills, settle disputes or work a gang? We may make a place in contracting business for a business man (27-32), honest, tactful and persistent; the engineer who has forgotten that he is one may succeed here; large city. P. 880, Eng. News.

CONTRACTING ENGINEER, experienced in reinforced-concrete industrial construction; close corporation owning a patented system of factory construction wishes conference with a contracting engineer capable of devoting all or part of his time to the enlargement of operations; manufacturing plants to the value of nearly a million dollars have already been erected under license; success of system demonstrated, and endorsed by practical engineers; sales organization available and good prospects pending; liberal division of profits assured; an investment may be required to finance building operations; none but a first-class experienced man with highest reference will be considered. Address "S. M. P.," P. O. Box 824, New York City.

Civil-Service Opportunities

Competitive examinations for the civil-service positions named below will be held on or up to the dates given. For detailed information, write the addresses specified.

Draftsman—(Male)—$75-$100 per month; examination Mar. 6; for vacancy in the Accounting and Engineering Dept. of the Illinois Public Utilities Commission; write to the State Civil Service Commisison, Springfield, Ill.

Electrical Engineer—(Male)—$200-$300 per month; for vacancy in the Accounting and Engineering Dept. of the Illinois Public Utilities Commission; write to the State Civil Service Commission, Springfield, Ill.

Hull Draftsman—(Male)—$1800; examination Feb. 24-25; for vacancy in office of Chief of Engineers, War Dept., Washington, D. C., or vacancies as they occur in other positions requiring similar qualifications; write to the United States Civil Service Commission, Washington, D. C., for Circular No. 122 and Application Form No. 1312.

Draftsman—(Male)—$1000; examination Feb. 25 and Mar. 4; for vacancy in the Water Bureau, Dept. of Pub. Wks.; open to residents of the City of Philadelphia only; write to Civil Service Commission, City Hall, Philadelphia, Penn.

Draftsman—(Male)—$1000-$1200; examination Feb. 24 and Mar. 3; for vacancy in the City Transit Dept.; open to residents of Philadelphia only; write to Civil Service Commission, City Hall, Philadelphia, Penn.

Draftsman—(Male)—$1200; examination Feb. 24 and Mar. 3; for vacancy in the Bureau of Surveys (Bridge Div.), Dept. of Pub. Wks.; open to residents of the City of Philadelphia only; write to Civil Service Commission, City Hall, Philadelphia, Penn.

Draftsman—(Male)—$900-$1200; examination Feb. 23 and Mar. 2; for vacancy in the Bureau of Highways, Dept. of Pub. Wks.; open to residents of the City of Philadelphia only; write to Civil Service Commission, City Hall, Philadelphia, Penn.

Draftsman—(Male)—$600-$900; examination Feb. 23 and Mar. 2; for vacancy in the Bureau of Highways, Dept. of Pub. Wks.; open to residents of the City of Philadelphia only; write to Civil Service Commissioner, City Hall, Philadelphia, Penn.

Draftsman—(Male)—$900-$1200; examination Feb. 20 and 27; for vacancy in the Bureau of Surveys, Dept. of Pub. Wks.; open to residents of the City of Philadelphia only; write to the Civil Service Commission, City Hall, Philadelphia, Penn.

Assistant Engineer—(Male)—$2100; examination Feb. 26-27; for vacancy in the Bureau of Highways, Dept. of Pub. Wks.; write to Civil Service Commission, City Hall, Philadelphia, Penn.

Assistant Engineer—(Male)—$2500; examination Feb. 26-27; for vacancy in the Bureau of Highways, Dept. of Pub. Wks.; write to Civil Service Commission, City Hall, Philadelphia, Penn.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

WANTED

AGENTS AND SALESMEN

ENGINEERING REPRESENTATIVES—Agents with offices in all parts of the United States to represent the Thomas Method of reinforced concrete bridge construction. W. M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

MISCELLANEOUS

CONSULTING MATHEMATICIANS, physicists and engineers; refinements of engineering; gyroscopic effect, vibrations, governor troubles, etc.; special research work, including theoretical investigations. M. 862, Eng. News.

IF YOU HAVE A CONSTRUCTION PROPOSITION of merit, we can finance or construct it. M. 878, Eng. News.

BUSINESS OPPORTUNITIES

SALES MANAGER—A Canadian farming implement manufacturing corporation has an opening for experienced sales manager [preferably with experience in above line], to take full charge of sales department; attractive salary and commission contract guaranteed to right party; $2500 cash investment and A1 references required. This is a high grade proposition for a high grade man. Investment fully secured. Correspondence treated strictly confidential. B. O. 805, Eng. News.

FACTORY SUPERINTENDENT—Position vacant for high grade factory superintendent, with executive ability, take full charge of all branches of a farming impleme factory in Canada; applicant must be able to invest $2500 cas and move at once to Ontario, Canada; contract with goo salary guaranteed to right party; investment covered guaranteed security. B. O. 806, Eng. News.

TREASURER—Large manufacturing corporation, estab lished 1850, location Canada, has a vacancy for a highly effi cient business man as secretary and treasurer; party must b able to invest at least $5000 cash and give best of reference as to ability and character; contract with good salary guaranteed to right party; investment absolutely secured; answer in full or no attention paid. B. O. 807, Eng. News.

ASSOC. MEM. AM. SOC. C. E. wants to buy civil engineering practice, netting at least $2500 per year, or working interest in larger business. Give price and essential facts, which will be held confidential. B. O. 846, Eng. News.

PARTNER wanted with capital to join me in general contracting business; particulars in full; good opportunity for right man. B. O. 858, Eng. News.

GRADUATE CIVIL ENGINEER, **Assoc. M. Am. Soc. C. E.**, desires to take over an established engineering business in a live growing city; will expect records and good will to go with the business; references will be furnished. B. O. 869, Eng. News.

ENGINEER'S GRAND OPPORTUNITY—Long-established young contractor with unquestionable reputation and expert knowledge in the economical construction of public and private work and with exceptional ability in securing and executing profitable contracts desires to meet young graduate civil engineer who is willing to learn the contracting and construction line and take an active interest with an investment of from $15,000 to $25,000. B. O. 872, Eng. News.

PARTNERSHIP wanted with experienced estimator on highway and light construction; must be able to invest from three to five thousand dollars. B. O. 879, Eng. News.

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

N

ADDRESSES

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BLAIR, John H., Boonville, Indiana.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONCORD Co., 117 Main St., Flemington, N. J. (Tel. 81 L).
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW CO., Wm. B., Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
INGERSOLL, H. G., 76 William St., New York, N. Y.—Much of this equipment can be seen at work, vicinity N. Y.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
ROCHESTER—Address P. O. Box 27, Rochester, N. Y.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SHERWOOD, E. C., 50 Church St., New York, N. Y.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. **First class condition.** Theo. Smith & Sons Co., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

2 Norwalk 700 cu.ft. and 1200 cu.ft.; excellent condition. Reason for selling, mine worked out. No further use for same.—HANDY BROS. MINING CO., Bay City, Mich.

BAILING PRESS

1 Dederick continuous bailing press.—CONCORD.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

75 H.P. loco. type 100 lb. pressure allowed.—INGERSOLL.

BONE MILL

3' Denmead bone mill with screen elevators.—CONCORD.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

⅞ yd. orange peel Smith.—INGERSOLL.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed. —GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

[Wanted]

Immediately—A ¾ yd. drag line bucket. Page preferred. Address Box 25, Dancy, Wis.

CABLEWAYS

400' for sewer work. Carson-Lidgerwood eng.—INGERSOLL.

Lidgerwood 6¼x10" DC. Reversible link motion DD engine, 525' of 1⅝" main cable with carriage, fall block, button line, etc., new in 1913.—SHERWOOD.

CARS

[Standard Gauge]

7—12 yd. 2-way Oliver dump cars with air brakes.—ROCHESTER.

2—10 cu.yd. wooden or steel air side dump, must be in first class shape, late make and ready to run.—BLAIR.

A number of 4, 6 and 12 yd., also small "V" body type.—SCHMIDT.

Bids received until Mar. 16, 1915.

Parkway Improvement

DEPARTMENT OF PUBLIC WORKS.
Office, 216 City Hall.
Philadelphia, February 20th, 1915.

Sealed proposals, endorsed, "Bids for Improvement of the Parkway," and addressed to the undersigned, at the office above mentioned, will be received until 12 o'clock, noon, on Tuesday, March 16th, 1915, and opened and read at that time in Room 225, City Hall, for the Improvement of the Parkway from 19th St. to 22nd St. and work incidental thereto.

Estimated quantities of work to be done are as follows:

Grading	30,000	cu.yds.
Asphalt Paving	33,000	sq.yds.
Vitrified Block Paving	3,400	sq.yds.
Granite Block Paving	3,500	sq.yds.
Sewers	800	lin.ft.
Concrete Curb	11,800	lin.ft.
Concrete Footways	14,500	sq.yds.
Topsoil	28,200	sq.yds.
Water Pipe	2,500	lin.ft.
Electrical Conduits	10,200	lin.ft.

Together with all incidental work, including the removal of existing structures, trees and planting, manholes, inlets, hydrants, etc.

A charge of five (5) dollars will be made for each set of specifications and drawings, which will be refunded upon the return of the unused specifications and drawings in good condition, or upon the return of the drawings in case a bid is submitted.

Specifications and blank forms upon which bids must be made, can be obtained upon application at the office of the Bureau of Highways, Room 232, City Hall.

No bid will be considered unless accompanied by a certificate from the City Solicitor that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81 West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city.

M. L. COOKE, Director.

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Bids received until Mar. 11, 1915.

Turbo-Centrifugal Pump

DEPARTMENT OF PARKS AND PUBLIC PROPERTY
Atlantic City, N. J.
READVERTISEMENT

SEALED PROPOSALS accompanied by plans and specifications for designing, furnishing, installing and testing One 18 Million Gallon Turbo-Centrifugal Pump with appurtenances, for the Absecon Pumping Station of Atlantic City, N. J., will be received by the Board of Commissioners of Atlantic City, when called for at the Chambers of said Board in the City Hall during a meeting to be held by that Body on the 11th day of March, A.D. 1915, at which time and place, during a session of said Board the Proposals will be opened and publicly read.

Each Proposal submitted must be accompanied by a certified check drawn upon a National or State Bank, or a Trust Company and to the order of the City Treasurer of Atlantic City, N. J., for the sum of Three Thousand ($3,000.00) Dollars.

Specifications and blank forms of Proposal can be obtained from L. Van Gilder, Engineer and Superintendent of the Water Department, at his office in the City Hall.

The Board of Commissioners expressly reserve the right to reject any or all bids as it may seem best for the public interest.

HARRY BACHARACH,
Director of Parks and Public Property.

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Bids received until Mar. 17, 1915.

Sanitary Sewers

Butte, Mont.

Sealed proposals for the construction of 13 miles of 8", 10" and 12" sanitary sewers for the South Side will be received by John C. Driscoll, City Clerk, until 5 o'clock P.M. Wednesday, March 17, 1915. Certified check for 10% of the amount bid must accompany all proposals.

Plans and specifications may be obtained at the office of the Commissioner of Public Works upon the deposit in the sum of $20.00, same to be refunded when plans and specifications are returned in good condition.

W. J. FLOOD,
Commissioner of Public Works.

Bids received until Mar. 12, 1915.

Five Pumping Engines

MAYFAIR PUMPING STATION.
Department of Public Works.
Chicago, February 17, 1915.

Sealed Proposals will be received by the City of Chicago until 11 A.M. Friday, March 12tn, 1915, at Room 406 City Hall, and then publicly opened, for furnishing and erecting five pumping engines at the Mayfair pumping station, Chicago, as follows:

Three pumping engines, capacity 25 million gallons per day, normal head 140 ft.

Two pumping engines, capacity 17½ million gallons per day, normal head 200 ft.

The contract includes discharge piping and suction connections for seven engines, according to Plans and Specifications on file in the office of the Department of Public Works of said City, Room 406 City Hall.

Proposals must be made out upon blanks furnished at said office, and be addressed to said Department, indorsed "Proposals for Five Pumping Engines, Mayfair Pumping Station," and be accompanied with Twenty-five Thousand Dollars in money or a certified check for the same amount on some responsible Bank located and doing business in the City of Chicago and made payable to the order of the Commissioner or Public Works.

The Commissioner of Public Works reserves the right to reject any or all bids.

A deposit of three hundred dollars ($300.00) will be required to insure return of plans and specifications.

No proposal will be considered unless the party offering it shall furnish evidence satisfactory to the Commissioner of Public Works of his ability, and that he has the necessary facilities together wtih sufficient pecuniary resources to fulfill the conditions of the Contract and Specifications, provided such Contract should be awarded to him.

Companies or firms bidding will give the individual names as well as the name of the firm with their address.

L. E. McGANN,
Commissioner of Public Works.

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Bids received until Mar. 11, 1915.

Excavator

DEPARTMENT OF PARKS AND PUBLIC PROPERTY
Atlantic City, N. J.

SEALED PROPOSALS, accompanied by plans and specifications, for designing, furnishing, erecting and operating under a guarantee—One "DRAG LINE" or "SLACK LINE" EXCAVATOR, capable of excavating 800 cubic yards per day, for use at the Doughty Pond for the City of Atlantic City when called for at the Chambers of the Board of Commissioners in the City Hall during a meeting to be held by that body on the 11th day of March, 1915, at which time and place, during a session of said Board the Proposals will be opened and publicly read.

Each proposal submitted must be accompanied by a certified check drawn upon a National or State Bank, or a Trust Company, and to the order of the City Treasurer of Atlantic City, N. J., for the sum of Three Thousand ($3,000.00) Dollars.

Specifications and blank forms of Proposal can be obtained from L. Van Gilder, Engineer and Superintendent of the Water Department, at his office in the City Hall.

The Board of Commissioners expressly reserve the right to reject any or all bids as it may deem best for the public interest.

HARRY BACHARACH,
Director of Parks and Public Property.

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Bids received until Mar. 10, 1915.

Proposals for Street Paving

Angola, Indiana.

Sealed Proposals will be received at the City Clerk's office, Angola, Indiana, until Wednesday, March 10, 1915, at 1:30 P.M., for curbing and paving E. Maumee St., being about 8400 sq.yds., in accordance with Plans and Specifications now on file in the City Clerk's office. Specifications may be obtained from Clark F. Powers, City Engr.

ROY HIRST, City Clerk.

Bids received until Mar. 10, 1915.

Storm-Water Contract No. 42, Gwynn's Run Trunk Drain, Section No. 1

OFFICE OF THE SEWERAGE COMMISSION
OF THE CITY OF BALTIMORE
Baltimore, Feb. 17th, 1915.

SEALED PROPOSALS, in duplicate, indorsed "Proposal for building Gwynn's Run Trunk Drain, Section No. 1, Storm-water Contract No. 42," addressed to the Board of Awards of Baltimore City, will be received at the office of the City Register, City Hall, Baltimore, Md., until 11 A.M. Wednesday, March 10, 1915, for building Section No. 1 of the Gwynn's Run Trunk Drain, as shown on plans on file in the office of Mr. Calvin W. Hendrick, Chief Engineer of the Sewerage Commission.

Specifications and plans can be obtained upon application at the office of the Secretary of the Commission, 904 American Building, on and after Tuesday, February 23rd, 1915.

A charge of $5.00 will be made for each set of specifications and plans, which charge will be refunded upon the return on or before March 10th, 1915, of the unused specifications and blueprints in good condition, or upon the return of the General Specifications and plans in case a bid is submitted.

A certified check of the bidders on a clearing house bank, in the sum of $3,000.00, made payable to the order of the Mayor and City Council of Baltimore, will be required to be deposited with each bid.

Approximate Quantities.

1,200	feet 15'x12'6" drain.
150	feet 18'x12'6" drain.
665	feet excavated outlet channels.
8,300	cu.yds. of earth excavation.
700	cu.yds. of rock excavation.
4,750	cu.yds. of concrete.
310	cu.yds. of brick masonry.
250,000	pounds of reinforcing steel.

The successful bidder on this contract will be required to give bond and comply with the City Charter respecting contracts.

The Board of Awards reserves the right to reject any and all bids.

By order of the Sewerage Commission:

CHARLES ENGLAND, Chairman.
HARRY W. RODGERS, Secretary.
Approved: February 17, 1915.
JOHN HUBERT,
Acting President, Board of Awards.

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Concrete Roads

I want the names of contractors in Southern Illinois, or Missouri, to figure on six miles of concrete roads, for an estate. C. L. 874, Engineering News, Chicago.

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Bids received until Mar. 23, 1915.

Street Improvements and Sewerage

Kinston, N. C.

Sealed proposals will be received by the City Council of the City of Kinston, N. C., at the City Hall in Kinston, N. C., until 5 P.M. March 23rd, 1915, for Street Improvements and Sewerage.

The work will consist of about:

12,000 sq.yds., or more, of Brick, Asphalt, Bitulithic, or other pavement.

30,000 lineal feet of concrete Curb and Gutter.

20,000 sq.yds. of Sidewalk.

8 miles of 8 to 18 inch pipe sewers.

Proposals must be marked, "Proposal for Street Improvements," or "Proposal for Sewerage."

All bids must be upon blank forms provided in the Proposal and Contract and Specifications.

Each bid must be accompanied by a certified check for $1000.00 as an evidence of good faith.

Plans and Specifications will be on file at the Clerk's Office in Kinston and at the office of the Engineer in Charlotte; and copies of the specifications, form of proposal, etc., will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by a check for ten dollars to insure their return within 30 days after the letting.

The right is reserved to reject any or all bids.

FRED I. SUTTON, Mayor.
Engineer: GILBERT C. WHITE,
Charlotte, N. C.

Bids received until Mar. 20, 1915.

Pompey's Pillar Creek Bridge

Billings, Mont.

NOTICE IS HEREBY GIVEN that sealed proposals will be received by the Board of County Commissioners of Yellowstone County, Montana, until 12 o'clock M. March 20th, 1915, for the construction of a highway bridge over the Yellowstone River near the mouth of Pompey's Pillar Creek in said County.

An unconditional certified check in the sum of $4500.00 to guarantee bid shall be filed with the County Clerk twenty-four hours in advance of the expiration of time for receiving bids.

Certified check shall be made payable to Marce Sorenson, Chairman of the Board of County Commissioners.

Plans and specifications are on file in the office of the County Surveyor, Arthur Boyer, at which office plans and specifications may be purchased for $5.00 per set.

The Board of County Commissioners reserves the right to reject any or all proposals.

By order of the Board.

F. E. WILLIAMS, County Clerk.
Dated at Billings, Montana, February 20, 1915.

⁂

Bids received until Mar. 20, 1915.

Duck Creek Bridge

Billings, Mont.

NOTICE IS HEREBY GIVEN that sealed proposals will be received by the Board of County Commissioners of Yellowstone County, Montana, until 12 o'clock M. March 20th, 1915, for the construction of a highway bridge over the Yellowstone River near the mouth of Duck Creek in said County.

An unconditional certified check in the sum of $3200.00 to guarantee bid shall be filed with the County Clerk twenty-four hours in advance of the expiration of time for receiving bids.

Certified check shall be made payable to Marce Sorenson, Chairman of the Board of County Commissioners.

Plans and specifications are on file in the office of the County Surveyor, Arthur Boyer, at which office plans and specifications may be purchased for $5.00 per set.

The Board of County Commissioners reserves the right to reject any or all proposals.

By order of the Board,

F. E. WILLIAMS, County Clerk.
Dated at Billings, Montana, February 20, 1915.

⁂

Bids received until Mar. 10, 1915.

Track Material

PORT COMMISSIONERS OF JACKSONVILLE.
Engineer's Office.
Jacksonville, Fla., Feb. 18th, 1915.

Sealed proposals will be received until 12 o'clock noon on Wednesday, March 10th, 1915, and then publicly opened by the Port Commissioners of Jacksonville, Florida, Room 314 Realty Bldg., for furnishing track material as follows:

Item No. 1	660 gross tons of 70-lb. rail.
Item No. 2	40 tons four bolt angle splice bars.
Item No. 3	3 tons bolts and nuts.
Item No. 4	18 tons spikes.
Item No. 5	45 turn-outs including switches, frogs and switch stands.

Bids will be considered on both "Open Hearth" or "Bessemer" Steel.

Above quantities are only approximate.

Specifications may be obtained from the Chief Engineer.

The Port Commission reserves the right to reject any or all bids, or items thereof as may seem to their best advantage.

F. W. BRUCE, Chief Engineer.

⁂

Bids received until Mar. 29, 1915.

Asphaltic Cement

Lansing, Mich.

Bids for asphaltic cement will be received by the City of Lansing, Michigan, up to March 29, 1915, at 4 o'clock p.m., at the office of the City Clerk of said city.

Plans and specifications can be secured from the City Engineer of said city.

JOHN McCLELLAN, City Clerk.

U. S. ENGINEER OFFICE, New London, Conn., Feb. 18, 1915.—Sealed proposals for dredging in the Connecticut River below Hartford, will be received here until 2 o'clock p.m., Mar. 18, 1915, and then publicly opened. Information on application. G. B. PILLSBURY, Major, Engrs.

Bids received until Mar. 15, 1915.

Street Paving

Steelton, Pennsylvania.

Sealed proposals will be received by the Town Council of the Borough of Steelton, Pennsylvania, at the Council Chamber until 7:30 P.M., Monday, March 15th, 1915, to be opened at a special meeting of the Town Council to be held at the said time and place for the subgrading, paving and curbing of the following streets:

South Third Street from Highland to DuPont, Highland Street from Second to Third and Conestoga Street from Front to Christian Street.

Plans, specifications, form of proposal and form of contract can be had from the Borough Secretary upon the payment of $10.00, which will be refunded upon the return of plans and specifications in good condition.

No proposal will be considered unless accompanied by a certified check made payable to LeRoy H. Sutton, Borough Treasurer, conditioned on the entering into by the successful bidder of a contract in accordance with the specifications and form provided, and furnishing a bond with at least two sureties, or some surety company acceptable to the Town Council, in the sum of approximately twenty-five per cent. (25%) of the cost of the work as set out in detail for each job in the specifications, conditioned for the faithful performance of all terms and conditions of said contract, the form of said bond to be approved by the Borough Solicitor; also maintenance bond conditioned as set forth in the contract and specifications. The amount of the certified checks shall be as follows: Highland Street, $100.00; South Third Street, $500.00; Conestoga Street, $600.00. In the event that the bid covers all of the streets to be paved the certified check shall be in the sum of $1,200.00.

The Town Council reserves the right to reject any or all bids or any part thereof.

Foreign corporations desiring to make bids should be registered in the office of the Secretary of the Commonwealth, as required by the Act of June 8th, 1911, and have a bona fide resident agent in this state with a fixed office, and as a further precaution to the Borough of Steelton, the successful bidder, if a foreign corporation, may at the option of the Town Council be required to empower some person or company satisfactory to the Town Council to accept service for said successful bidder during the term of the contract and bond.

CHAS. P. FEIDT, Borough Secretary.

* * *

SEALED PROPOSALS will be received at the Office of the Lighthouse Inspector, Philadelphia, Pa., until 2 o'clock p.m., March 11, 1915, and then opened, for furnishing and depositing 1,000 tons of broken stone and 2,100 tons of riprap at Brandywine Shoal Light Station, Delaware Bay. Blank proposals and particulars may be obtained by addressing the above office.

U. S. ENGINEER OFFICE, 602 Burke Bldg., Seattle, Wash., Feb. 3, 1915.—Sealed proposals for pumping plant for Lake Washington Canal locks will be received at this office until 12 noon, March 15, 1915, and then publicly opened. Information on application to U. S. Engr. Office, Seattle, Wn., Chicago, Ill., or New York, N. Y. J. B. CAVANAUGH, Maj., Engrs.

PROPOSALS FOR RIVER BANK PROTECTION—U. S. Engineer Office, Customhouse, St. Louis, Mo., February 8, 1915.—Sealed proposals for 10,000 linear feet of river bank protection, to include materials and work, will be received at this office until 11 A.M., March 10, 1915, and then publicly opened. Information on application. C. McD. TOWNSEND, Col., Engineers.

Bids received until Mar. 10, 1915.

Road Roller, Mixer, etc.

Sharon, Pa.

SEALED PROPOSALS will be received by the undersigned, Secretary of the Borough of Sharon, until 12 o'clock noon, Wednesday, March 10, 1915, for the following machinery, to wit:

One 3-wheel road roller weighing approximately ten (10) tons.

One batch concrete mixer with gravity distributor and traction drive.

Two 5-barrel heating kettles.

Plans and specifications must accompany each bid. Bidders will also be required to state shortest time delivery and be prepared to furnish bond of $100 to insure delivery in time specified.

The Street Committee and Paving Committee will meet on Wednesday evening, March 10, 1915, at 7 o'clock p.m. to open bids. Recommendations for purchase will probably be made at meeting of Council on March 11, 1915.

BOROUGH OF SHARON,
CLAUDE B. LARTZ, Secry.

* * *

U. S. ENGINEER OFFICE, Wilmington, N. C., Feb. 10, 1915.—Sealed proposals for dredging in Neuse River, waterway from Pamlico Sound to Beaufort Inlet, and Beaufort Harbor, N. C., will be received at this office until 12 M., Mar. 9, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engineers.

U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., February 13, 1915.—Sealed proposals for furnishing and delivering 32,000 barrels of American Portland Cement will be received at this office until 12 M., February 26, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Engrs.

U. S. ENGINEER OFFICE, Room 707, Army Building, New York, N. Y., Feb. 11, 1915.—Sealed proposals for 20 tanks, from 2,250 to 5,700 gals. capacity, for Philippine Islands, will be received at this office until 12 M., March 9, 1915, and then publicly opened. Information on application. S. W. ROESSLER, Col., Engrs.

U. S. ENGINEER OFFICE, Charleston, S. C., February 17, 1915.—Sealed proposals for dredging in Ashley River, S. C., will be received at this office until noon, March 19, 1915, and then publicly opened. Information on application. G. A. YOUNGBERG, Major, Engrs.

U. S. ENGINEER OFFICE, Duluth, Minn., Feb. 24, 1915.—Sealed proposals for constructing and delivering complete the steel hull, 4½ yard dipper dredge, "Col. D. D. Gaillard," will be received at this office until 10 o'clock a.m., March 26, 1915, and then publicly opened. Information on application. E. D. PEEK, Major, Engrs.

U. S. ENGINEER OFFICE, Galveston, Texas, Feb. 2, 1915.—Sealed proposals for dredging at Port Aransas, Texas, and in the Channel from Aransas Pass to Corpus Christi, Texas, will be received at this office until 12 o'clock noon, March 3, 1915, and then publicly opened Information on application. C. S. RICHE, Lieut. Col., Engineers.

U. S. ENGINEER OFFICE, Galveston, Texas, February 15, 1915.—Sealed proposals for jetty and dike work at Aransas Pass, Texas, will be received at this office until 12 M., March 16, 1915, and then publicly opened. Information on application. C. S. RICHE, Lieut. Colonel, Engineers.

U. S. ENGINEER OFFICE, 405 Customhouse, Cincinnati, O., January 30, 1915.—Sealed proposals for constructing and delivering two steel Fuel Flats Nos. 18 and 19, and one steel Barge No. 15, will be received at this office until 2 p.m., March 2, 1915, and then publicly opened. Information on application. H. JERVEY, Lt. Col., Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities**, **Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale**, 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 881, Eng. News.

MECHANICAL ENGINEER, 37 years old, able, experienced, resourceful, now mechanical superintendent and assistant manager large manufacturing plant, desires position vicinity of New York. P. W. 887, Eng. News.

MECHANICAL ENGINEER, 35, fifteen years' experience, industrial engineering, structural steel, concrete, estimating and inspecting, holding responsible position, desires change; salary $2400. P. W. 890, Eng. News.

Civil Engineers

ENGINEER, 14 years' experience; surveys on railroad location and construction, irrigation, drainage, United States Geological, subdivisions, flood prevention and sewers. Flitman, 374 Fortieth Ave., Milwaukee.

CIVIL ENGINEER; graduate, 12 years' practical experience with consulting engineers and utility companies; water works and other utilities; investigations, reports, design, construction, appraisals. References. P. W. 825, Eng. News.

YOUNG MAN—Technical graduate, 3 years' experience office and field, well recommended. Engineer or contractor. P. W. 799, Eng. News.

CIVIL ENGINEERING GRADUATE desires position as instrumentman. P. W. 833, Eng. News.

CIVIL ENGINEER, 36. with broad field and office experience in railroad, hydrographic, dredging, water supply and building construction; thorough knowledge of drafting and designing; first-class references; immediately available. P. W. 856, Eng. News.

GRADUATE CIVIL ENGINEER, 24, desires position; two years' experience steel structures and concrete. P. W. 868, Eng. News.

CIVIL ENGINEER, technical graduate, three years' general experience on steel, reinforced concrete, and railway construction, desires position with opportunity for advancement; excellent references. P. W. 871, Eng. News.

CIVIL ENGINEER, 30; single; eight years drainage, municipal, etc.; now in Southwest. P. W. 886, Eng. News.

EXPERIENCED CIVIL ENGINEER, graduate, desires position as rodman or chainman; go anywhere. P. W. 908, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; six years' experience, structural drafting railroad work and factory construction. P. W. 906, Eng. News.

CIVIL ENGINEER, technical graduate; 24; two years' experience, railroad maintenance and reinforced-concrete bridge design and construction. P. W. 909, Eng. News.

CIVIL ENGINEER; good technical education; six years' experience in field, drafting and design, timber, steel and concrete structures (specializing in reinforced concrete); tracks, yards and earthwork; on heavy railroad constuction and Panama Canal. P. W. 911, Eng. News.

SEVENTEEN YEARS' EXPERIENCE, water-supply, irrigation, power, subways, canals, locks, dams, sanitary engineering; will consider position or business proposition; New York City preferred. P. W. 907, Eng. News.

I. C. S. STUDENT; 21; 3½ years on Canadian railway; sober; references; desires position as rodman, instrumentman, or timekeeper with contractor; go anywhere; available now. P. W. 895, Eng. News.

GRADUATE CIVIL ENGINEER; 9 years' experience; 4 in Latin America, railroads, docks, bridges, sugar mills, drainage surveys; American Society Associate Member; speak Spanish. P. W. 894, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT; Associate Member American Society; 8 years' experience, railroads, construction and maintenance bridges, docks, buildings, drainage and surveys; references. P. W. 893, Eng. News.

Bridge and Structural

BRIDGE AND STRUCTURAL ENGINEER with long experience holding responsible positions wishes to change location. P. W. 751, Eng. News.

STRUCTURAL DRAFTSMAN; two years' technical training, four years' thorough experience; laying out, inspecting, detailing; available immediately; interview Cleveland. P. W. 892, Eng. News, Chicago.

Surveyors

INSTRUMENTMAN, married, seven years' experience, all kinds of surveying, desires change; can handle men. Caperell, 47 Union St., Flushing, L. I.

Draftsmen

DRAFTSMAN, five years' experience mechanical, structural, engineering; technical education; ambitious, reliable; salary secondary consideration. P. W. 903, Eng. News.

Superintendents, Etc.

ENGINEER desires position. Expert derrick or cableway runner. Massachusetts and New York City licenses. References from all former employers. Location no object. P. W. 815, Eng. News.

GRADUATE ENGINEER, 10 years' experience on construction of various types foundations, bridge piers, retaining walls, bridges, railroad construction, wants job with contractors or engineering firm as superintendent or in charge construction office. Unmarried, go anywhere. P. W. 817, Eng. News.

ESTIMATOR, general building construction, graduate civil engineer, 10 years' experience, reliable, hustler, wants change, New York location. P. W. 769, Eng. News.

SUPERINTENDENT, experienced in highway, park and sewer construction, also in quarrying and crushing stone; estimator and organizer; go anywhere. P. W. 831, Eng. News.

SUPERINTENDENT or general foreman of crushing or mixing plant available Mar. 1; location immaterial; excellent references. P. W. 829, Eng. News, Chicago.

SUPERINTENDENT of building; 12 years' experience general building construction; references; go anywhere. P. W. 840, Eng. News, Chicago.

CONSTRUCTION ENGINEER; 16 years' experience, buildings, bridges, massive concrete, difficult foundations; good references. P. W. 885, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN; 15 years experience in office and factory building; dam, power and filtration plant construction, Government and city work; contractors' plants erected and maintained at low cost; thorough knowledge of carpentry, steel and iron work. P. W. 888, Eng. News.

SALES-ENGINEER; five years traveling Eastern half of the United States, selling and promoting various building materials; open for engagement Mar. 1. P. W. 889, Eng. News.

Y. M. C. A. BUILDERS—Superintendent and estimator on this class of work wants position. P. W. 912, Eng. News.

CONTRACTORS' ENGINEER AND ESTIMATOR; 17 years' experience roads, sewers, pavements, tunnels, dredging, concrete work, bridges, bulkheads, water-front improvements. P. W. 913, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN, ten years' experience reinforced-concrete buildings; high experience with chutes; sober; highest reference. P. W. 916, Eng. News.

BUILDING SUPERINTENDENT wants position; a hustler; age 27; a good draftsman and estimator with 10 years' experience in all kinds of building construction and a carpenter by trade; have a thorough knowledge of brickwork, stonework, reinforced concrete, steel erection and contractors' plant; have my own transit, etc., and will go anywhere. P. W. 901, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN; past four years in charge unit methods of construction; also general experience in industrial buildings construction; age 31; unmarried; will go anywhere. P. W. 902, Eng. News, Chicago.

ENGINEER, 28, two years' experience on New York State highway construction, good instrumentman, estimator, supervisor of construction, technical graduate, desires position with contractor or consulting engineer. P. W. 910, Eng. News.

SALES ENGINEER, college graduate, seven years' engineering experience, mechanical and structural steel, wants to get into the selling end on salary or to take agency. P. W. 918, Eng. News, Chicago.

PRACTICAL CONCRETE SUPERINTENDENT; 15 years' experience in New York City, all kinds of concrete work, cement paving and cinder concrete fireproofing; experienced with foreign laborers; good solicitor and estimator; anywhere. P. W. 905, Eng. News.

GRADUATE ENGINEER, three years' experience in railway maintenance and construction, timekeeping and concrete inspection; eight months road surveys and topographic work, four months in full charge; three months factory construction; available immediately. P. W. 915, Eng. News.

POSITIONS OPEN

AN EXPERIENCED MAN to manage a steam drag line machine; also two drag line operators; do not apply unless you can furnish first class reference. P. 919, Eng. News, Chicago.

FIRST OF MAY, a capable, energetic superintendent on extensive excavation contract, must be well acquainted with steam shovel and drag line work; state salary expected and give references. P. 891, Eng. News.

Civil-Service Opportunities

Competitive examinations for the civil-service positions named below will be held on or up to the dates given. For detailed information, write the addresses specified.

MECHANICAL ENGINEER—(Male)—$160-$250 per month; for vacancy in the Accounting and Engineering Dept. of the Illinois Public Utilities Commission; write to the State Civil Service Commission, Springfield, Ill.

UTILITIES INVESTIGATOR—(Male)—$100-$150 per month; for vacancy in the Accounting and Engineering Dept. of the Illinois Public Utilities Commission; write to the State Civil Service Commission, Springfield, Ill.

JUNIOR ENGINEER—(Male)—$75-$100 per month; examination Mar. 6; for vacancy in the State Highway Dept.; write to the State Civil Service Commission, Springfield, Ill.

SERVICE ENGINEER—(Male)—$200-$300 per month; for vacancy in the Accounting and Engineering Dept. of the Illinois Public Utilities Commission; write to the State Civil Service Commission, Springfield, Ill.

ASSISTANT UTILITIES ENGINEER—(Male)—$90-$125 per month; for vacancy in the Accounting and Engineering Dept. of the Illinois Public Utilities Commission; write to the State Civil Service Commission, Springfield, Ill.

SERVICE INSPECTOR—(Male)—$90-$125 per month; for vacancy in the Accounting and Engineering Dept. of the Illinois Public Utilities Commission; write to the State Civil Service Commission, Springfield, Ill.

RAILROAD ENGINEER—(Male)—$250-$333.33 per month; for vacancy in the Accounting and Engineering Dept. of the Illinois Public Utilities Commission; write to the State Civil Service Commission, Springfield, Ill.

ASSISTANT CHIEF UTILITIES ENGINEER—(Male)—$300-$375 per month; for vacancy in the Accounting and Engineering Dept. of the Illinois Public Utilities Commission; write to the State Civil Service Commission, Springfield, Ill.

ASSISTANT RAILROAD ENGINEER—(Male)—$160-200 per month; for vacancy in the Accounting and Engineering Dept. of the Illinois Public Utilities Commission; write to the State Civil Service Commission, Springfield, Ill.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

LABOR BUREAUS

WILLING TO PAY A GOOD BONUS to anyone who is instrumental in obtaining the privilege to conduct a commissary (general store) on any construction work. L. B. 914, Eng. News.

WANTED

AGENTS AND SALESMEN

ENGINEERING REPRESENTATIVES—Agents with offices in all parts of the United States to represent the Thomas Method of reinforced concrete bridge construction. W. M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

SALESMAN, engineer, mechanical, now located in Denver, Colo., would like to represent reliable company in Southwestern territory or west coast; best references. W. 904, Eng. News.

MISCELLANEOUS

CONSULTING MATHEMATICIANS, physicists and engineers; refinements of engineering; gyroscopic effect, vibrations, governor troubles, etc.; special research work, including theoretical investigations. M. 862, Eng. News.

BUSINESS OPPORTUNITIES

ENGINEER, mechanical and structural experience, with small capital, wants connection with established engineering, contracting or manufacturing firm, as partner; Milwaukee or Chicago location preferred. B. O. 917, Eng. News, Chicago.

ENGINEER'S GRAND OPPORTUNITY—Long-established young contractor with unquestionable reputation and expert knowledge in the economical construction of public and private work and with exceptional ability in securing and executing profitable contracts desires to meet young graduate civil engineer who is willing to learn the contracting and construction line and take an active interest with an investment of from $15,000 to $25,000. B. O. 872, Eng. News.

FOR SALE

BOUND VOLUMES "ENGINEERING NEWS" (1897-1900); substantial binding, new; $2.75 per volume. Llano, 19 N. Mountain Ave., Montclair, N. J.

CONSTRUCTION ENGINEER.

Graduate C. E.; M. Am. Soc. C. E.; 42 years of age; good health; married. Good executive, manager or superintendent; 21 years' experience on design and supervision. Work has included masonry construction—plain and reinforced, stone and concrete; dams, retaining walls, bridge piers, etc.; rock and pile, wet and dry foundations; cofferdams; power plants and buildings; sewage disposal; water supply. Open for employment about April 1. Desires connection with and can invest in contracting or engineering firm. P. W. 896, Eng. News.

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

N

ADDRESSES

AVERY, Chas. F., 45 Broadway, New York, N. Y.
BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BLAIR, John H., Boonville, Indiana.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CARPENTER & Boxley & Herrick, Inc., 4th Ave. and 70th St., B'klyn, N. Y.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DANFORTH Co., John W., 72 Ellicott St., Buffalo, N. Y.—Equipment little used and in excellent condition.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-½x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition. Theo. Smith & Sons Co., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

2 Norwalk 700 cu.ft. and 1200 cu.ft.; excellent condition. Reason for selling, mine worked out. No further use for same.—HANDY BROS. MINING CO., Bay City, Mich.

Belt driven, 1100-1200'; steam driven, 628-235'.—AVERY.

BOATS

[Wanted]

For use on Lake Ontario two boats, capacity 600 to 1000 tons, for carrying stone. Boats with modeled bow desired. Give present location, age, full description and price delivered at Toronto.—CANADIAN STEWART CO., LTD., 30 Church St., New York City.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

CARS

[Standard Gauge]

A number of 4, 6 and 12 yd., also small "V" body type.—SCHMIDT.

2 Platform cars.—DANFORTH.

[36" Gauge]

100 Western 4-yd. dump and 26 Koppel steel concrete.—CARPENTER.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

[Wanted]

2—10 cu.yd. wooden or steel air side dump, must be in first class shape, late make and ready to run.—BLAIR.

30 dump cars, 36" gauge.—W. 899, Eng. News.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15′ elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

7½ and 5 Gates—K; No. 6 McCully.—AVERY.

DERRICKS

1 Steel stiff leg, 70′ boom; 1 steel guy, 70′ boom, 25 tons cap.; 1 steel traveling, 45′ boom.—GIVIN.

5 traveling, 50 HP. Lambert elec. hoists.—CARPENTER.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

A 2½ yd., 80 ft. boom, vertical spuds, 2 boilers, loco. type, Marion deep water dredge, Factory No. 2219. Repairs kept up continually; in first class condition. Can be seen in operation 13 miles north of Las Animas, or 10 miles south of Arlington, Colo., during the next 60 days. Delivery can be made in April.—THE FORT LYON CANAL CO., Las Animas, Colorado.

DRILLS, ROCK

6 Ingersoll, type F-24, 2 class "C" Little Giants.—BECKWITH.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

Arnott steam pile, sizes 1, 2, 3 and 4.—GRIMSHAW.

HEATERS, FEED WATER

Several types, capacities up to 1200 HP.—NEW RIVER.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33″ diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

One—8¼x12 Flory, three drum and boiler.—SCHMIDT.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS.

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

Various types and sizes.—SCHMIDT.

[36″ Gauge]

10 10x16″ Porter, Davenport and Vulcans.—SOUTHERN

5 9x14″ Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

5—11x16 Vulcan dinkies 1936 to 2039.—CARPENTER.

3—9x14 Porter dinkies 3146 to 3589.—CARPENTER.

A number of 9x14 and 10x16.—SCHMIDT.

[24″ Gauge]

1—6x10 Porter, fine condition.—SCHMIDT.

1—7x12 Vulcan, 3 months old.—SCHMIDT.

[Wanted]

2 locomotives, 36″ gauge.—W. 898, Eng. News.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50′ boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21′ boom; 1—15 ton, 8-wheel Industrial, wrecking crane, 20′ boom, goose neck.—HITNER'S

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE

Smith ¾ yd. Batch with engine,—on skids—MARINE.

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka with 3 H.P. D.C. motor, continuous; 2 Austin cubes with engines and boilers on steel skids, and 2—2½ Smiths with engines on wheels.—PIPE.

PILING, SHEET STEEL

About 100 pcs. 28′, fairly good, $25 ton f.o.b. cars, Fort Worth, Tex.—F. N. GRAVES, Pur. Agent, Fort Worth, Texas.

165 pcs. Lackawanna 14″ arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

5000 pcs. Lackawanna and Carnegie, various widths and lengths. Send your inquiries.—GRIMSHAW.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

1 No. 8, 1 No. 9, 1 No. 10 Cameron.—MARINE.

2 Davidson Simplex 9x9x11.—MARINE.

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE

1 No. 486 Emerson, 4″ suc., 3″ dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

2 Worthington 1,500,000 gal. Horizontal, Duplex Power, 14″ diameter, 10″ stroke.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

3 Underwriters fire pumps cheap.—WHITNEY.

2 Emerson steam No. 4.—PIPE.

RAILS

500 tons first-class 56 and 60 lb. rail.—CARPENTER.

180 ft. 30 lb. rail; 480 ft. Koppel portable track, 12 lb. rails on steel tie, 24″ gauge.—DANFORTH.

[Wanted]

2000 ft. 36″ gauge track.—W. 897, Eng. News.

ROAD ROLLERS

For sale or to rent, tandem and 3-wheel steam road rollers.—F. S. 873, Eng. News.

One—10 ton three wheel Buffalo-Pitts.—SCHMIDT.

First class 3-wheeled steam.—F. S. 779, Eng. News.

[Wanted]

Paving roller at a bargain. Send description and price to W. 780, Eng. News.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

One—⅝ yd. Marion-Osgood. Traction.—SCHMIDT.

Several large shovels, various makes.—SCHMIDT.

Vulcan No. 728—1¼ yd. Dipper, Bucyrus Maker, Self-propelled. Good condition. Bargain. Address NEILE F. TOWNER, 13 North Pearl St., Albany, N. Y.

1 Marion Model 60, 1439 with 1 standard and 1 special boom, and 1 Model 75, 2112.—CARPENTER.

[Wanted]

1 Marion Model 28 or Bucyrus Model B-14 on standard gage railroad tracks, must be in first class shape, late make and ready to run.—BLAIR.

¾ yd. traction type.—W. 900, Eng. News.

TRAVELING CRANES

1 15-ton electric 36′ 6″ span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

3-ton hand power, 22′, 10½″ span.—DANFORTH.

TURBINES

2 Houston 44″ Vertical, with beveled gears, shafting, etc.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

FOR SALE

Air Reheaters
Blowers and Fans
Buckets
Cars
Car Tipple
Rock Drills
Elevators
Tripods
Drill Columns
Electric Locomotives
Grout Machines
Man Locks
Pile Hammer
Pumps
Saw
Steel Pontoon
Spiral Pipe
Wrought Iron Pipe
Drill Steels

Apply to

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.

Dredge Pipe for Sale

Pontoon and Land Pipe

20 inches and 22 inches in diameter. Also casks, pontoons, elbows and valves. In good condition, will sell at one-half value. Inquire, P. O. Box 27, Rochester, N. Y.

LINK-BELT CRANES

For Dependable Service

A Link-Belt Crane is an all-around machine for general work around any plant. It may be arranged to handle hook block, self-filling grab bucket, drag line bucket, electric lifting magnet, or equipped with special boom for steam shovel attachment and pile driver.

LINK-BELT COMPANY
PHILADELPHIA CHICAGO
NEW YORK

Your Idle Machinery

or plant, or tools for which you have no present use might be sold or rented to some other reader through the medium of a "For Sale or Rent" advertisement in Engineering News.

Rates on Application

CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York.
Cable Address, Pawnee Havana.
Western Union & Lieber Codes Used.
Havana Office, Zulueta 36 D.

THE SNARE AND TRIEST COMPANY
Woolworth Building, 233 Broadway New York

WESTERN

Earth and Stone Handling Machinery

Air Dump Cars—Hand Dump Cars—Spreader Cars—Scrapers—Road Machinery—Portable Rock Crushers—Dump Wagons—Elevating Graders. Wagon Loaders and Ditchers. **Glad to send Catalogs.**

Western Wheeled Scraper Co., Farnsworth Ave. Aurora, Ill.

WE WILL RENT YOU WHAT YOU NEED IN CONTRACTORS' EQUIPMENT

We Carry Only High-Grade Serviceable Machinery IN GOOD CONDITION

Our equipment is regularly repaired at our own shops and we guarantee its mechanical condition. You can depend on it for any work you have in contemplation, big or little.

We also sell outright or lease with privilege of buying

Our prices are low for the class of equipment we offer.

Write US Stating Your Requirements

UNITED STATES EQUIPMENT CO.
208 South La Salle St., Chicago, Ill.

Cost more to build—
And more to buy—

Sterling

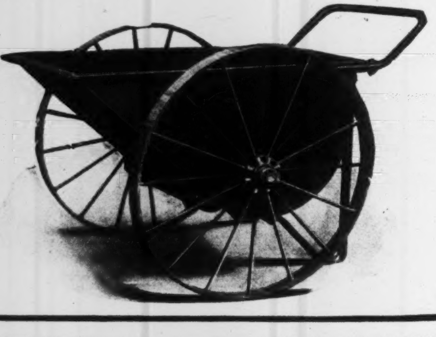
Barrows and Carts

But they last so much longer than ordinary barrows that their higher first cost is forgotten in their big economy in the long run.

Write for catalog No. 19. It describes the very barrow or cart for your particular requirements.

Sterling Wheelbarrow Co.

6401-6500 Pullen Ave. **Milwaukee, Wisconsin.**



The OHIO Makes Good Everywhere

Over two years have elapsed since the purchase of the OHIO crane by the Babcock & Wilcox Company of Bayonne, N. J., who own and operate four different makes of locomotive cranes.

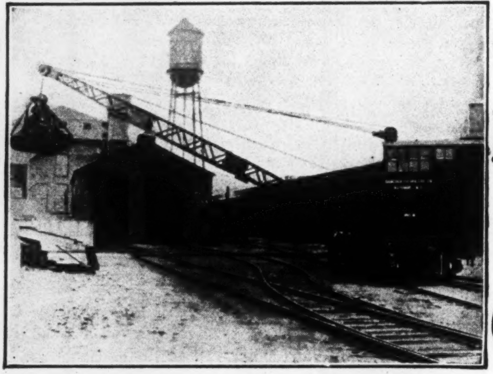
Every part has been given the service test by severe usage.

Not one part has been replaced that was defective or broken.

Do you wonder this OHIO made good?

Write for Catalogue No. 5.

O H I O



O H I O

The Ohio Locomotive Crane Co.,

Mansfield St., Bucyrus, Ohio

30 Church St.,	New York.
Fisher Bldg.,	Chicago.
Home Life Bldg.,	Washington, D.C.
Oliver Bldg.,	Pittsburgh.
Edward R. Bacon Co.,	San Francisco—Los Angeles.
Contractors Equipment Co.,	Seattle—Portland.
N. C. Walpole,	Birmingham, Ala.
Industrial Engineering & Machy. Co.,	Montreal.
Dominion Equipment & Supply Co.,	Winnipeg.

Zibell Wins Again

Defeats another manufacturer in Patent Suit.

Patent No. 813,841, for Waterproofing, Wearproofing, Dustproofing, Oilproofing of Cement Walls and Floors, held invalid as to all claims in litigation in U. S. Court.

SINCE 1903, ZIBELL with his PROTECTORINE and WATERPROOF PAINTS, for Foundations, Walls, Cement Floors, or Roofs of Cement, Mortar, Plaster, Stucco, Brick, Stone or Metal, has won over the goods of competitors under the most severe test requirements. This time we have won in patent litigation which threatened the entire Portland Cement Building Industry in the country. It means a large saving to you on these paints. Ask us to show you.

Trade Mark

Zibell Damp Resisting Paint Company

Manufacturers of Waterproofing and Dampproofing Paints and Compounds. Waterproofing and Dampproofing Contractors

Incorporated 1903

273 Water Street, New York, U. S. A

BARGE
O-CRANE-S

Another efficient type of the extensive O.-S. Line of Material Handling Machinery.

Largely used in various harbors for coaling ships.

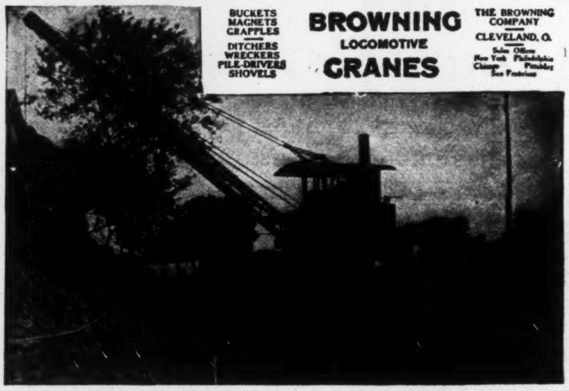
Whatever your problem in material handling, there's an O.-S. way to do it better.

Details? Write for Bulletin No. 9.

Orton & Steinbrenner Co.

Main Office: CHICAGO, ILL.

Works: Huntington, Ind.



BUCKETS
MAGNETS
GRAPPLES

DITCHERS
WRECKERS
PILE-DRIVERS
SHOVELS

BROWNING
LOCOMOTIVE
CRANES

THE BROWNING COMPANY

CLEVELAND, O.

Sales Offices
New York Philadelphia
Chicago Pittsburg
San Francisco

Bids received until Mar. 18, 1915.

Kings Park State Hospital

Kings Park, N. Y.

Sealed proposals for additional accommodations for chronic patients, construction; heating; plumbing and drainage and electric work at Kings Park State Hospital, Kings Park, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 2:30 o'clock P.M. on Thursday, March 18, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of $2025.00 for Proposal No. 1 Construction Work; in the sum of $675.00 for Proposal No. 2 Construction Work; in the sum of $450.00 for Proposal No. 1 of Heating Work; in the sum of $150.00 for Proposal No. 2 of Heating Work; in the sum of $400.00 for Proposal No. 1 of Plumbing Work; in the sum of $150.00 for Proposal No. 2 of Plumbing Work; in the sum of $150.00 for Proposal No. 1 of Electric Work; and in the sum of $50.00 for Proposal No. 2 of Electric Work. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specifications Nos. 2128, 2134, 2135 and 2136. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Kings Park State Hospital, Kings Park, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York, for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher.

E. S. ELWOOD, Secretary.

Dated Albany, N. Y., February 27, 1915.

⁂

Bids received until Mar. 10, 1915.

Track Material

PORT COMMISSIONERS OF JACKSONVILLE.
Engineer's Office.
Jacksonville, Fla., Feb. 18th, 1915.

Sealed proposals will be received until 12 o'clock noon on Wednesday, March 10th, 1915, and then publicly opened by the Port Commissioners of Jacksonville, Florida, Room 314 Realty Bldg., for furnishing track material as follows:

Item No. 1	660 gross tons of 70-lb. rail.
Item No. 2	40 tons four bolt angle splice bars.
Item No. 3	3 tons bolts and nuts.
Item No. 4	18 tons spikes.
Item No. 5	45 turn-outs including switches, frogs and switch stands.

Bids will be considered on both "Open Hearth" or "Bessemer" Steel.

Above quantities are only approximate.

Specifications may be obtained from the Chief Engineer.

The Port Commission reserves the right to reject any or all bids, or items thereof as may seem to their best advantage.

F. W. BRUCE, Chief Engineer.

⁂

Bids received until Mar. 17, 1915.

Filtration Plant—Contract No. 6

Cleveland, Ohio.

Sealed bids or proposals for constructing a filtered-water reservoir will be received at the office of the Commissioner of Purchases and Supplies, No. 511 City Hall, Cleveland, Ohio, till 12 o'clock noon of March 17, 1915.

The principal items are

Excavation and backfilling.......	78,000 cu.yds.
Concrete masonry	26,500 cu.yds.
Steel reinforcement	520,000 lbs.

Plans and specifications containing proposal blank may be obtained after March 3, 1915, on deposit of $25.00 with the Commissioner of Water, No. 413 Superior Ave., Cleveland, Ohio, which deposit may be redeemed on return of the plans in good condition.

No proposal will be entertained unless made on the proposal blank above mentioned and delivered at the office of the Commissioner of Purchases and Supplies previous to 12 o'clock noon on the day specified.

The City reserves the right to reject any and all bids.

Bids received until Mar. 12, 1915.

Five Pumping Engines

MAYFAIR PUMPING STATION.
Department of Public Works.
Chicago, February 17, 1915.

Sealed Proposals will be received by the City of Chicago until 11 A.M. Friday, March 12th, 1915, at Room 406 City Hall, and then publicly opened, for furnishing and erecting five pumping engines at the Mayfair pumping station, Chicago, as follows:

Three pumping engines, capacity 25 million gallons per day, normal head 140 ft.

Two pumping engines, capacity 17½ million gallons per day, normal head 200 ft.

The contract includes discharge piping and suction connections for seven engines, according to Plans and Specifications on file in the office of the Department of Public Works of said City, Room 406 City Hall.

Proposals must be made out upon blanks furnished at said office, and be addressed to said Department, indorsed "Proposals for Five Pumping Engines, Mayfair Pumping Station," and be accompanied with Twenty-five Thousand Dollars in money or a certified check for the same amount on some responsible Bank located and doing business in the City of Chicago and made payable to the order of the Commissioner or Public Works.

The Commissioner of Public Works reserves the right to reject any or all bids.

A deposit of three hundred dollars ($300.00) will be required to insure return of plans and specifications.

No proposal will be considered unless the party offering it shall furnish evidence satisfactory to the Commissioner of Public Works of his ability, and that he has the necessary facilities together wtih sufficient pecuniary resources to fulfill the conditions of the Contract and Specifications, provided such Contract should be awarded to him.

Companies or firms bidding will give the individual names as well as the name of the firm with their address.

L. E. McGANN,
Commissioner of Public Works.

⁂

Bids received until Mar. 16, 1915.

Proposals for Oiling

State of Maryland
STATE ROADS COMMISSION
601 Garrett Building,
Baltimore, Md.

SEALED PROPOSALS for oiling 7 sections of State Highway, aggregating about 475 miles in length and requiring approximately 1,278,300 gallons of oil, as follows:

	County	Miles	Gallons
Salisbury Residency...	Worcester Somerset Wicomico Dorchester Caroline	55.33	145,680
Chestertown Residency	Talbot Queen Anne Kent Cecil	61.96	156,037
Baltimore Residency..	Harford Baltimore	83.88	238,776
Frederick Residency...	Frederick Carroll Howard	90.56	231,184
Cumberland Residency.	Washington Allegany Garrett	79.10	206,036
Hyattsville Residency..	Montgomery Washington Boulevard Annapolis Boulevard	70.86	215,758
La Plata Residency....	Charles St. Mary's Prince George	34.14	84,832

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Md., until 12 M. on the 16th day of March, 1915, at which time and place they will be publicly opened and read.

Bids must be made in writing for the work outlined in each Residency and upon forms which will be furnished by the State Roads Commission. Specifications will be furnished by the Commission upon application.

The successful bidder will be required to give a $5,000.00 bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission, this 1st day of March, 1915.

O. E. WELLER, Chairman.

WM. L. MARCY, Secretary.

Bids received until Mar. 18, 1915.

Notice to Dredging Contractors

Xenia, Ohio.

Sealed bids are invited and will be received at the office of the Board of County Commissioners of Greene County, Ohio, up until 10 o'clock A.M., Thursday, March 18th, 1915, for the excavation of 144,183 Cubic Yards of earth, all of which is designed as floating dredge work, except about 1040 Cubic Yards which is designed as team work.

The work consists of the following:

Six & $^{12}/_{100}$ miles, 14 ft. bottom, ½ to 1 slopes, 143,140 Cubic Yards (Dredge Work),

$^{20}/_{100}$ miles, 14 ft. bottom, ½ to 1 slopes, 1043 Cubic Yards (Team Work).

Bids may be made for the whole or any part thereof. The right is reserved to reject any or all bids.

A deposit of a certified Check upon an active and going bank, payable to the order of the Board of County Commissioners of Greene County, Ohio, in the sum of Five hundred dollars, must be made by the successful bidder as a forfeit that he will enter into contract and give bond for the performance of the work.

The work is located at Alpha station, twelve miles east of Dayton, on the P. C. C. & St. L. Railway, the C. H. & D. Railway, and the Dayton & Xenia Traction Railway. It consists of, the deepening, widening and straightening of a stream called Beaver Creek. The work is located in a good country, with good gravel pikes.

Contractors are advised to see this piece of work.

Maps, profiles and specifications, or other information may be had by calling on or writing the County Surveyor and Engineer.

Board of County Commissioners of Greene County, O.,
By GEO. W. KENDALL, Clerk.
Xenia, Greene County, Ohio, February 25th, 1915.

⁂

Bids received until Mar. 10, 1915.

Road Roller, Mixer, etc.

Sharon, Pa.

SEALED PROPOSALS will be received by the undersigned, Secretary of the Borough of Sharon, until 12 o'clock noon, Wednesday, March 10, 1915, for the following machinery, to wit:

One 3-wheel road roller weighing approximately ten (10) tons.

One batch concrete mixer with gravity distributor and traction drive.

Two 5-barrel heating kettles.

Plans and specifications must accompany each bid. Bidders will also be required to state shortest time delivery and be prepared to furnish bond of $100 to insure delivery in time specified.

The Street Committee and Paving Committee will meet on Wednesday evening, March 10, 1915, at 7 o'clock p.m. to open bids. Recommendations for purchase will probably be made at meeting of Council on March 11, 1915.

BOROUGH OF SHARON,
CLAUDE B. LARTZ, Secry.

⁂

Bids received until Mar. 15, 1915.

Paving

Rockford, Ill., Feb. 24, 1915.

Sealed proposals will be received until 11 o'clock A.M. March 15, 1915, at the office of the President of the Board of Local Improvements of the City of Rockford, Illinois, for furnishing material and paving with brick portions of Melrose Street and Clinton Street, and for macadamizing portions of Prospect Street, in the City of Rockford, Illinois.

Approximate quantities:

Melrose Street—3450 cu.yds. excavation, 6500 sq.yds. brick pavement on concrete base, and 5270 lin.ft. cement curb and gutter.

Clinton Street—2930 cu.yds. excavation, 5900 sq.yds. brick pavement on concrete base, and 4690 lin.ft. cement curb and gutter.

Prospect Street—2000 cu.yds. excavation, 9600 sq.yds. macadam pavement and 5150 lin.ft. cement curb and gutter.

Plans and specifications will be furnished upon application to the City Engineer.

W. W. BENNETT,
President Board of Local Improvements.

Bids received until Mar. 16, 1915.

Parkway Improvement

DEPARTMENT OF PUBLIC WORKS.
Office, 216 City Hall.
Philadelphia, February 20th, 1915.

Sealed proposals, endorsed, "Bids for Improvement of the Parkway," and addressed to the undersigned, at the office above mentioned, will be received until 12 o'clock, noon, on Tuesday, March 16th, 1915, and opened and read at that time in Room 225, City Hall, for the Improvement of the Parkway from 19th St. to 22nd St. and work incidental thereto.

Estimated quantities of work to be done are as follows:

Grading	30,000	cu.yds.
Asphalt Paving	33,000	sq.yds.
Vitrified Block Paving	3,400	sq.yds.
Granite Block Paving	3,500	sq.yds.
Sewers	800	lin.ft.
Concrete Curb	11,800	lin.ft.
Concrete Footways	14,500	sq.yds.
Topsoil	28,200	sq.yds.
Water Pipe	2,500	lin.ft.
Electrical Conduits	10,200	lin.ft.

Together with all incidental work, including the removal of existing structures, trees and planting, manholes, inlets, hydrants, etc.

A charge of five (5) dollars will be made for each set of specifications and drawings, which will be refunded upon the return of the unused specifications and drawings in good condition, or upon the return of the drawings in case a bid is submitted.

Specifications and blank forms upon which bids must be made, can be obtained upon application at the office of the Bureau of Highways, Room 232, City Hall.

No bid will be considered unless accompanied by a certificate from the City Solicitor that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81 West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city.

M. L. COOKE, Director.

⁂

Bids received until Mar. 23, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. Tuesday, March 23rd, 1915, for the improvement of Highways in the following counties:

Allegany (approx. length 9.52); Cattaraugus, 2 highways (6.98, 5.35); Columbia (approx. length 4.97); Chemung (approx. length 1.86); Erie (approx. length 4.48); Franklin (approx. length 0.22); Jefferson, 3 highways (2.86, 2.40, 0.51); Monroe (approx. length 0.66); Niagara (approx. length 8.33); Rensselaer (approx. length 2.11); Schuyler (approx. length 1.86); Putnam (approx. length 0.13); Sullivan (approx. length 8.51).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "INFORMATION FOR BIDDERS" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

⁂

Bids received until Mar. 17, 1915.

Sanitary Sewers

Butte, Mont.

Sealed proposals for the construction of 13 miles of 8", 10" and 12" sanitary sewers for the South Side will be received by John C. Driscoll, City Clerk, until 5 o'clock P.M. Wednesday, March 17, 1915. Certified check for 10% of the amount bid must accompany all proposals.

Plans and specifications may be obtained at the office of the Commissioner of Public Works upon the deposit in the sum of $20.00, same to be refunded when plans and specifications are returned in good condition.

W. J. FLOOD,
Commissioner of Public Works.

Bids received until Mar. 23, 1915.

Street Improvements and Sewerage

Kinston, N. C.

Sealed proposals will be received by the City Council of the City of Kinston, N. C., at the City Hall in Kinston, N. C., until 5 P.M. March 23rd, 1915, for Street Improvements and Sewerage.

The work will consist of about:

12,000 sq.yds., or more, of Brick, Asphalt, Bitulithic, or other pavement.

30,000 lineal feet of concrete Curb and Gutter.

20,000 sq.yds. of Sidewalk.

8 miles of 8 to 18 inch pipe sewers.

Proposals must be marked, "Proposal for Street Improvements," or "Proposal for Sewerage."

All bids must be upon blank forms provided in the Proposal and Contract and Specifications.

Each bid must be accompanied by a certified check for $1000.00 as an evidence of good faith.

Plans and Specifications will be on file at the Clerk's Office in Kinston and at the office of the Engineer in Charlotte; and copies of the specifications, form of proposal, etc., will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by a check for ten dollars to insure their return within 30 days after the letting.

The right is reserved to reject any or all bids.

FRED I. SUTTON, Mayor.

Engineer: GILBERT C. WHITE,
Charlotte, N. C.

⁂

Bids received until Mar. 16, 1915.

Paving

Waycross, Ga.

Bids will be received by the Mayor and Board of Aldermen of Waycross, Ga., until 7:30 P.M., March 16th, 1915, for the construction of approximately 11,000 square yards of brick pavement on Carswell Avenue, on sand foundation (curbing already laid).

Plans and specifications on file at the office of the City Clerk.

A. C. LOWTHER, City Clerk.

⁂

Bids received until Mar. 16, 1915.

Paving and Sewer

Corning, N. Y.

Bids will be received by the Board of Public Works, until 12 M. March 16th, 1915, for 956 sq.yds. Brick Paving and 1852 lin.ft. 8" sanitary sewer and 1653 lin.ft. of 6" sanitary sewer.

WILLIAM O. DRAKE, Supt.

⁂

U. S. ENGINEER OFFICE, Chicago, Ill., Feb. 27, 1915.—Sealed proposals for dredging in Indiana Harbor, Ind., will be received at this office until 10 a.m. March 29, 1915, and then publicly opened. Information on application. W. V. JUDSON, Lt. Col., Engineers.

U. S. ENGINEER OFFICE, Newport, R. I., Feb. 27, 1915.—Sealed proposals for dredging in Providence Harbor, R. I., will be received at the U. S. Engineer sub-office, Federal Building, Providence, R. I., until 12 o'clock noon, Mar. 30, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

U. S. ENGINEER OFFICE, Wilmington, N. C., Feb. 10, 1915. —Sealed proposals for dredging in Neuse River, waterway from Pamlico Sound to Beaufort Inlet, and Beaufort Harbor, N. C., will be received at this office until 12 M., Mar. 9, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engineers.

U. S. ENGINEER OFFICE, Room 707, Army Building, New York, N. Y., Feb. 11, 1915.—Sealed proposals for 20 tanks, from 2,250 to 5,700 gals. capacity, for Philippine Islands, will be received at this office until 12 M., March 9, 1915, and then publicly opened. Information on application. S. W. ROESSLER, Col., Engrs.

U. S. ENGINEER OFFICE, Charleston, S. C., February 17, 1915.—Sealed proposals for dredging in Ashley River, S. C., will be received at this office until noon, March 19, 1915, and then publicly opened. Information on application. G. A. YOUNGBERG, Major, Engrs.

U. S. ENGINEER OFFICE, Duluth, Minn., Feb. 24, 1915.—Sealed proposals for constructing and delivering complete the steel hull, 4½ yard dipper dredge, "Col. D. D. Gaillard," will be received at this office until 10 o'clock a.m., March 26, 1915, and then publicly opened. Information on application. E. D. PEEK, Major, Engrs.

Bids received until Mar. 22, 1915.

City Hall

City of Watervliet, N. Y., February 27th, 1915.

Sealed proposals for the erection of a City Hall for the City of Watervliet, Albany County, N. Y., under the plans and specifications prepared by Messrs. Demers, Mosley & Campaigne, Architects, of Troy, N. Y., will be received by the Board of Contract & Supply of the City of Watervliet, N. Y., at its office, No. 1520 Broadway, Watervliet, N. Y., until Monday, March 22nd, 1915, at 2 o'clock P.M.

Each proposal for the complete work or any part of same must be filled out and signed by the bidder, together with a certified check for a sum equal to five per centum of the bid, payable to the Chamberlain of the City of Watervliet, N. Y., and placed in an envelope sealed and marked "Proposal for the Erection of City Hall, Watervliet, N. Y.," and delivered to the Clerk of the Board of Contract & Supply. Only such proposals so left and signed, accompanied with check, will, at that hour and place, be received. Bids will be acted on within one calendar month. The Board of Contract & Supply reserves the right to reject any and all bids. Plans and specifications are on file at the office of the Board of Contract & Supply, No. 1520 Broadway, Watervliet, N. Y., and also at the office of Messrs. Demers, Mosley & Campaigne, No. 203 Illium Building, Troy, N. Y. Bidders may obtain copies of same from the Clerk or architects by enclosing a check for $25.00 payable to the architects' order, and to be held by them until the return of plans and specifications.

BOARD OF CONTRACT & SUPPLY,
By WILLIAM B. DAUBNEY, Clerk.
DEMERS, MOSLEY & CAMPAIGNE, Architects,
Troy, N. Y.

⁂

Bids received until Mar. 10, 1915.

Proposals for Street Paving

Angola, Indiana.

Sealed Proposals will be received at the City Clerk's office, Angola, Indiana, until Wednesday, March 10, 1915, at 1:30 P.M., for curbing and paving E. Maumee St., being about 8400 sq.yds., in accordance with Plans and Specifications now on file in the City Clerk's office. Specifications may be obtained from Clark F. Powers, City Engr.

ROY HIRST, City Clerk.

⁂

Wagons

The Siamese Royal Railway Department invites bids for 159 Goods and Cattle Wagons and spare parts. Specifications and drawings may be had from the Siamese Legation, Washington, D. C., on payment of fee of $4.00.

⁂

DEPARTMENT OF COMMERCE, Lighthouse Service, Office of Inspector, 3d Dist., Tompkinsville, N. Y., Mar. 3, 1915. —SEALED PROPOSALS will be received at the office of the Lighthouse Inspector, Tompkinsville, N. Y., until 2 o'clock p.m. April 6, 1915, and then opened, for furnishing and delivering f.o.b. and secured on cars place of manufacture, twenty first-class Iron Sinkers and two mammoth whistling buoys. Blank proposals and particulars may be obtained by addressing the Lighthouse Inspector, Tompkinsvile, N. Y.

U. S. ENGINEER OFFICE, Galveston, Texas, February 15, 1915.—Sealed proposals for jetty and dike work at Aransas Pass, Texas, will be received at this office until 12 M., March 16, 1915, and then publicly opened. Information on application. C. S. RICHE, Lieut. Colonel, Engineers.

U. S. ENGINEER OFFICE, 602 Burke Bldg., Seattle, Wash., Feb. 3, 1915.—Sealed proposals for pumping plant for Lake Washington Canal locks will be received at this office until 12 noon, March 15, 1915, and then publicly opened. Information on application to U. S. Engr. Office, Seattle, Wn., Chicago, Ill., or New York, N. Y. J. B. CAVANAUGH, Maj., Engrs.

PROPOSALS FOR RIVER BANK PROTECTION—U. S. Engineer Office, Customhouse, St. Louis, Mo., February 8, 1915.—Sealed proposals for 10,000 linear feet of river bank protection, to include materials and work, will be received at this office until 11 A.M., March 10, 1915, and then publicly opened. Information on application. C. McD. TOWNSEND, Col., Engineers.

U. S. ENGINEER OFFICE, New London, Conn., Feb. 18, 1915.—Sealed proposals for dredging in the Connecticut River below Hartford, will be received here until 2 o'clock p.m., Mar. 18, 1915, and then publicly opened. Information on application. G. B. PILLSBURY, Major, Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 881, Eng. News.

Civil Engineers

ENGINEER, 14 years' experience; surveys on railroad location and construction, irrigation, drainage, United States Geological, subdivisions, flood prevention and sewers. Flitman, 374 Fortieth Ave., Milwaukee.

CIVIL ENGINEERING GRADUATE desires position as instrumentman. P. W. 833, Eng. News.

CIVIL ENGINEER, 30; single; eight years drainage, municipal, etc.; now in Southwest. P. W. 886, Eng. News.

EXPERIENCED CIVIL ENGINEER, graduate, desires position as rodman or chainman; go anywhere. P. W. 908, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; six years' experience, structural drafting railroad work and factory construction. P. W. 906, Eng. News.

SEVENTEEN YEARS' EXPERIENCE, water-supply, irrigation, power, subways, canals, locks, dams, sanitary engineering; will consider position or business proposition; New York City preferred. P. W. 907, Eng. News.

GRADUATE CIVIL ENGINEER; 9 years' experience; 4 in Latin America, railroads, docks, bridges, sugar mills, drainage surveys; American Society Associate Member; speak Spanish. P. W. 894, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT; Associate Member American Society; 8 years' experience, railroads, construction and maintenance bridges, docks, buildings, drainage and surveys; references. P. W. 893, Eng. News.

CIVIL ENGINEER, 27; five years' experience; railroad, city, land, surveys; building, bridge, construction; river improvement; competent construction man; efficient instrumentman; will consider any offer; location immaterial. P. W. 961, Eng. News, Chicago.

SUPERINTENDENT, CIVIL ENGINEER, formerly connected in responsible capacity with some of the best known national contracting firms; experienced in all classes construction work; appraising, estimating, securing contracts, etc.; have worked abroad; speak Spanish; location immaterial. P. W. 959, Eng. News.

CIVIL ENGINEER, graduate; 12 years' practical experience with consulting engineers and utility companies; waterworks and other utilities; investigations, reports, design, construction, appraisals; references. P. W. 958, Eng. News.

CIVIL ENGINEER; good technical education; six years' experience in field, drafting and design, timber, steel and concrete structures (specializing in reinforced concrete); tracks, yards and earthwork; on heavy railroad construction and Panama Canal. P. W. 957, Eng. News.

CIVIL ENGINEER, technical graduate; 24; two years' experience, railroad maintenance and reinforced-concrete bridge design and construction. P. W. 947, Eng. News.

CIVIL ENGINEER, graduate; 24; one year's excellent experience with U. S. Army Engineers; at present employed; desire change for better; salary not the main object. P. W. 955, Eng. News.

SUPERINTENDENT AND CIVIL ENGINEER wishes to locate with contractor, engineer or prominent industry; five years' experience in open and pneumatic construction in U. S. and Canada; shafts, piers, Ohio River dams, etc.; good executive, handle office work, purchasing, plant layouts, design equipment, etc. P. W. 950, Eng. News.

CIVIL ENGINEER; with 12 years' experience on railroad location and construction, sewers, reinforced concrete construction and municipal engineering is open for engagement. Associate Member, American Society of Civil Engineers. P. W. 930, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; 14 years' experience, including municipal, development of large tracts and farm surveys, railroad, stadia, triangulation, computating, drafting and general field and office work. Salary reasonable; good reference; 35 years old. P. W. 934, Eng. News.

GRADUATE CIVIL ENGINEER with long experience in general engineering work would like to take charge of engineering work of borough or town; can furnish all instruments; salary reasonable. P. W. 935, Eng. News.

CIVIL ENGINEERING GRADUATE, desires position, New York or Central States, 2 years' experience office and field. Salary no object. P. W. 941, Eng. News.

YOUNG WIDE-AWAKE CIVIL ENGINEER. Former county engineer. Wide experience in highway, reinforced concrete, structural and difficult foundation work. A-1 labor organizer. Highest credentials in regard to ability and results. P. W. 942, Eng. News, Chicago.

GRADUATE ENGINEER, available immediately; 8 years' experience, 5 in charge of work; reinforced concrete, hydroelectric developments, including investigation and construction, brick pavements and railroads; excellent references. P. W. 940, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER, expert designer, efficient planning and handling complicated structures, wants responsible position. P. W. 954, Eng. News.

DRAFTSMAN; 10 years designing, detailing, estimating, general structural work; 10 years' general engineering. P. W. 943, Eng. News.

Surveyors

RAILROAD RODMAN TOPOGRAPHER, just off 10 month job. Want similar position. P. W. 922, Eng. News.

INSTRUMENTMAN; technical training, five years' experience, married, open for engagement Apr. 15. Address Box 164, Dallas, Penn.

Draftsmen

DRAFTSMAN, engineering and architectural; industrial plants; general construction and transit work; nine years' experience; references. P. W. 962, Eng. News.

FIRST-CLASS STRUCTURAL SQUADMAN and checker; 12 years' experience mill and office buildings, bridges, etc., with leading companies; desires position. P. W. 949, Eng. News.

DRAFTSMAN; three years with architects on building construction and three years at steel detailing; desires position. P. W. 956, Eng. News.

CHIEF DRAFTSMAN; executive, energetic man, 31, married, possessing good education, executive ability, initiative; varied mechanical, structural experience, now engaged as chief draftsman, desires similar position or as assistant superintendent. P. W. 937, Eng. News.

Superintendents, Etc.

ESTIMATOR, general building construction, graduate civil engineer, 10 years' experience, reliable, hustler, wants change, New York location. P. W. 769, Eng. News.

SUPERINTENDENT, experienced in highway, park and sewer construction, also in quarrying and crushing stone; estimator and organizer; go anywhere. P. W. 831, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN; past four years in charge unit methods of construction; also general experience in industrial buildings construction; age 31; unmarried; will go anywhere. P. W. 902, Eng. News, Chicago.

SALES ENGINEER, college graduate, seven years' engineering experience, mechanical and structural steel, wants to get into the selling end on salary or to take agency. P. W. 918, Eng. News, Chicago.

SUPERINTENDENT OR GENERAL FOREMAN; 15 years' experience in office and factory building; dam, power and filtration plant construction, government and city work; contractors' plants erected and maintained at low cost; thorough knowledge of carpentry, steel and concrete work. P. W. 960, Eng. News.

Y. M. C. A. BUILDERS—Superintendent and estimator on this class of work wants position. P. W. 948, Eng. News.

EXPERIENCED FOREMAN (with or without gang) seeks position on construction work; best reference. P. W. 952, Eng. News.

SUPERINTENDENT OF CONSTRUCTION; 35; 15 years' practical experience reinforced-concrete bridges, industrial buildings, dams, viaducts, etc.; good organizer; can produce results; best references; anywhere. P. W. 928, Eng. News.

ENGINEER, 28, two years' experience on New York State highway construction; good instrumentman, estimator, supervisor of construction; technical graduate; desires position with contractor or consulting engineer. P. W. 945, Eng. News.

STRUCTURAL SALES ENGINEER wants position of greater opportunity; M. Am. Soc. C. E.; 20 years' experience as structural engineer, eight years in Pittsburgh, 10 in New York City; now employed as contracting and general engineer for structural steel fabricating plant in Ohio; close to market in my quotations, getting nearly half of proposals submitted to date and none at loss from errors; expert in analyzing and estimating structural steel of every description. P. W. 946, Eng. News, Chicago.

CONSTRUCTION ENGINEER, 25, graduate; just back from South America; five years' experience as construction engineer in Latin-America; speaks Portuguese and Spanish; will go anywhere; first-class references. Box 162, Poughkeepsie, N. Y.

CONTRACTORS' ENGINEER AND ESTIMATOR; 17 years' experience roads, sewers, pavements, tunnels, dredging, concrete work, bridges, bulkheads, water-front improvements. P. W. 913, Eng. News.

CONTRACTORS' ENGINEER AND MANAGER will consider proposal from outside contracting company for services in Detroit, bidding for new work and managing construction. P. W. 923, Eng. News, Chicago.

SUPERINTENDENT OR MASTER MECHANIC; twenty six years' experience in shovels or dragline, best reference. Can run shovel. P. W. 925, Eng. News.

GRADUATE, ARCHITECTURAL ENGINEERING, 27, 2½ years' field and drafting experience, will start low with reputable architectural or building concern. Location immaterial. P. W. 926, Eng. News.

ELECTRICAL ENGINEER, technical graduate with three years' experience in design and development work and one year experience in consulting work would like position with consulting or manufacturing concern. Willing to go any where at moderate salary. Best of references. P. W. 927, Eng. News, Chicago.

GENERAL FOREMAN—Concrete of all kinds. Thoroughly familiar with form building, carpentry, reinforcement, and plant installation. Capable of taking full charge. P. W. 929, Eng. News.

SUPERINTENDENT over twenty years' practical experience, making detail, reports recommending and repairs old buildings, supervising and erecting large modern buildings, receiving estimates, letting contracts, etc. A valuable man for architect or owner wanting active, reliable and trustworthy man of large experience, well recommended. P. W. 931, Eng. News, Chicago.

FOREMAN—Experienced in construction of street and highway work, also estimating and designing of reinforced concrete structures. Can start at once, go anywhere. P. W. 932, Eng. News.

AS FOREMAN, on road and grading work. References unquestionable. G. E. Sargent, Waterbury, Vermont.

SUPERINTENDENT OR GENERAL FOREMAN, ten years' experience reinforced-concrete buildings; high experience with chutes; sober; highest reference. P. W. 921, Eng. News.

POSITIONS OPEN

EXPERIENCED STRUCTURAL ENGINEER, estimator and contractor. Must be capable of making detailed estimates of steel and iron work from architect's plans. Must be capable of designing. Must be graduate engineer. No one need apply unless experienced. State age, salary desired and give references and selling experience. P. 924, Eng. News, Chicago.

STRUCTURAL ESTIMATOR and salesman, experienced on light structural work and miscellaneous iron work; New York location; must have clean record; give full details and references in first letter. P. 963, Eng. News.

ENGINEER, familiar with New York building code to design structural steel for buildings. One who has had responsible charge of drafting department with mill or steel contractors, preferred. Permanent position. Address with particulars. P. 939, Eng. News.

INSTRUCTOR to handle part of work in structural engineering in an Eastern college; must be graduate in civil engineering with teaching and practical experience; salary $1000 to $1200; work begins April 1. Address with full statement as to education, experience and references. P. 951, Eng. News.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

EXPERIENCED FOREMAN seeks position on construction work; will furnish all necessary labor; best reference. L. B. 953, Eng. News.

WANTED

INDEX TO VOL. 71 (Jan.-June, 1914) and copies of Jan. 28, 1915, "Engineering News." Will pay 20 cents each. Subscription Department, Eng. News.

AGENTS AND SALESMEN

ENGINEERING REPRESENTATIVES—Agents with offices in all parts of the United States to represent the Thomas Method of reinforced concrete bridge construction. W. M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

YOUNG MAN, 25, speaking Spanish and Portuguese, university and business college graduate, five years in Latin-America, wishes employment with manufacturer or exporter, object being salesman or agent in Latin-America; first-class references. P. O. Box 162, Poughkeepsie, N. Y.

MISCELLANEOUS

CHARTS FOR REINFORCED-CONCRETE BEAM DESIGN according to report of Joint Committee (Nov. 20, 1912). Rational and economical. Price, 40 cents. C. Siquot, 6 East German St., Baltimore, Md.

BUSINESS OPPORTUNITIES

ENGINEER, mechanical and structural experience, with small capital, wants connection with established engineering, contracting or manufacturing firm, as partner; Milwaukee or Chicago location preferred. B. O. 917, Eng. News, Chicago.

ENGINEER'S GRAND OPPORTUNITY—Long-established young contractor with unquestionable reputation and expert knowledge in the economical construction of public and private work and with exceptional ability in securing and executing profitable contracts desires to meet young graduate civil engineer who is willing to learn the contracting and construction line and take an active interest with an investment of from $15,000 to $25,000. B. O. 872, Eng. News.

ENGINEER—Established public service engineering and contracting corporation wants engineer. Investment $2000. Good salary to start. Must locate in Chicago. Personal interview necessary; quick action. B. O. 938, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; 14 years' experience in general field and office work desires to purchase engineering business, paying $1500 to $2000 yearly or buy interest in reliable firm; good references. B. O. 936, Eng. News.

FOR SALE

ENGINEERING NEWS, volumes 59-72, bound. F. S. 944, Eng. News.

TEN VOLUMES "ENGINEERING NEWS," 1903 to 1907, inclusive, bound in half leather, perfect condition; will sell for best offer. Also Transactions Am. Soc. C. E., 1907-8-9, bound in cloth. A. Nichols, Room 2013, Municipal Building, New York City.

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

N

ADDRESSES

AVERY, Chas. F., 45 Broadway, New York, N. Y.
BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CARPENTER & Boxley & Herrick, Inc., 4th Ave. and 70th St., B'klyn, N. Y.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
INGERSOLL, H. G., 76 William St., New York, N. Y.—Much of this equipment can be seen at work, vicinity N. Y.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition.—THEO. SMITH & SONS CO., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

2 Norwalk 700 cu.ft. and 1200 cu.ft.; excellent condition. Reason for selling, mine worked out. No further use for same.—HANDY BROS. MINING CO., Bay City, Mich.

Belt driven, 1100-1200′; steam driven, 628-235′.—AVERY.

[Wanted]

Electric driven compressor (without motor) guaranteed in first class condition; 600 to 800 ft. per minute; for use at Toronto. Give make, location, age, condition and price.—CANADIAN STEWART CO., LTD., 30 Church St., New York, N. Y.

BOATS

[Wanted]

For use on Lake Ontario two boats, capacity 600 to 1000 tons, for carrying stone. Boats with modeled bow desired. Give present location, age, full description and price delivered at Toronto.—CANADIAN STEWART CO., LTD., 30 Church St., New York City.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72″x20′, 1—78″x20′, 1—72″x18′, 1—72″x15′, 1—72″x 14′, triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

75 H.P. loco. type 100 lb. pressure allowed.—INGERSOLL.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

⅞ yd. orange peel Smith.—INGERSOLL.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed.—GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

CABLEWAYS

400′ for sewer work. Carson-Lidgerwood eng.—INGERSOLL.

CARS

[Standard Gauge]

A number of 4, 6 and 12 yd., also small "V" body type.—SCHMIDT.

[36″ Gauge]

100 Western 4-yd. dump and 26 Koppel steel concrete.—CARPENTER.

40—4 yd. Western dump.—INGERSOLL.

[24″ Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

10—1 yd. swivel end dump cars.—PIPE.

[Wanted]

30 dump cars, 36″ gauge.—W. 899, Eng. News.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15′ elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

7½ and 5 Gates—K; No. 6 McCully.—AVERY.

[Wanted]

Large jaw. State make, age and condition.—SCHMIDT.

DERRICKS

1 Steel stiff leg, 70′ boom; 1 steel guy, 70′ boom, 25 tons cap.; 1 steel traveling, 45′ boom.—GIVIN.

5 traveling, 50 HP. Lambert elec. hoists.—CARPENTER.

Trav., 25′ spread, 60′ boom DD Mundy hoist.—INGERSOLL.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

A 2½ yd., 80 ft. boom, vertical spuds, 2 boilers, loco. type, Marion deep water dredge, Factory No. 2219. Repairs kept up continually; in first class condition. Can be seen in operation 13 miles north of Las Animas, or 10 miles south of Arlington, Colo., during the next 60 days. Delivery can be made in April.—THE FORT LYON CANAL CO., Las Animas, Colorado.

DRILLS

6 Ingersoll, type F-24, and 2 class "C" Little Giant. rock drills.—BECKWITH.

Keystone traction No. 3 with placer equipment located at Prescott, Ariz.—L. J. HOHL, 525 Market St., San Francisco, Calif.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

Arnott steam pile, sizes 1, 2, 3 and 4.—GRIMSHAW.

HEATERS, FEED WATER

Several types, capacities up to 1200 HP.—NEW RIVER.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33″ diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

One—8¼x12 Flory, three drum and boiler.—SCHMIDT.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

Gurley Mountain transit No. 28 and a Philadelphia level rod.—F. S. 920, Eng. News.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36″ Gauge]

10 10x16″ Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14″ Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

5—11x16 Vulcan dinkies 1936 to 2039.—CARPENTER.

3—9x14 Porter dinkies 3146 to 3589.—CARPENTER.

A number of 9x14 and 10x16.—SCHMIDT.

1—18 ton Porter; 1—18 ton American.—INGERSOLL.

[24″ Gauge]

1—6x10 Porter, fine condition.—SCHMIDT.

1—7x12 Vulcan, 3 months old.—SCHMIDT.

[Wanted]

2 locomotives, 36″ gauge.—W. 898, Eng. News.

To buy—a gasoline locomotive standard gauge.—Address J. LEOPOLD & CO., 233 Broadway, New York, N. Y.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50′ boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21′ boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20′ boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE.

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka with 3 H.P. D.C. motor, continuous; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

Haines gravity, ½ yd.—INGERSOLL.

PILING, SHEET STEEL

165 pcs. Lackawanna 14″ arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

5000 pcs. Lackawanna and Carnegie, various widths and lengths. Send your inquiries.—GRIMSHAW.

[Wanted]

250-300 tons lengths about 35′.—W. 964, Eng. News, Chicago.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

1 No. 8, 1 No. 9, 1 No. 10 Cameron.—MARINE.

2 Davidson Simplex 9x9x11.—MARINE.

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE.

1 No. 486 Emerson, 4″ suc., 3″ dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

2 Worthington 1,500,000 gal. Horizontal, Duplex Power, 14″ diameter, 10″ stroke.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

3 Underwriters fire pumps cheap.—WHITNEY.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

RAILS

500 tons first-class 56 and 60 lb. rail.—CARPENTER.

40 ton of 35 lb. with fish plates.—PIPE.

100 tons 40 to 50 lb. rails, ties, etc.—INGERSOLL.

[Wanted]

2000 ft. 36" gauge track.—W. 897, Eng. News.

ROAD ROLLERS

For sale or to rent, tandem and 3-wheel steam road rollers.—F. S. 873, Eng. News.

One—10 ton three wheel Buffalo-Pitts.—SCHMIDT.

First class 3-wheeled steam.—F. S. 779, Eng. News.

[Wanted]

Paving roller at a bargain. Send description and price to W. 780, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

SPRINKLERS

500 gal. sanitary auto, street flushing mach.—INGERSOLL.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

One—⅝ yd. Marion-Osgood. Traction.—SCHMIDT.

1 Bucyrus 14 B, new last August.—SCHMIDT.

1 Marion Model 60, 1439 with 1 standard and 1 special boom, and 1 Model 75, 2112.—CARPENTER.

2—70 ton Bucyrus 2½ yd. dippers.—INGERSOLL.

[To Let]

2 No. 0 Thew Revolving steam shovels with ⅝ yd. bucket.—F. O. JOHNSON, 70 Kilby St., Boston, Mass.

[Wanted]

¾ yd. traction type.—W. 900, Eng. News.

TRAVELING CRANES

1 15-ton electric 36′ 6″ span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

TURBINES

2 Houston 44″ Vertical, with beveled gears, shafting, etc.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

FOR SALE

Air Reheaters
Blowers and Fans
Buckets
Cars
Car Tipple
Rock Drills
Elevators
Tripods
Drill Columns
Electric Locomotives
Grout Machines
Man Locks
Pile Hammer
Pumps
Saw
Steel Pontoon
Spiral Pipe
Wrought Iron Pipe
Drill Steels

Apply to

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.

CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York.
Cable Address, Pawnee Havana.
Western Union & Lieber Codes Used.
Havana Office, Zulueta 36 D.

THE SNARE AND TRIEST COMPANY
Woolworth Building, 233 Broadway New York

DERRICKS CABLEWAYS

JOHN T. HORTON, M. E.
92 West St., New York

Specialist in
Hoisting Equipment

Cutting Haulage Costs 54%
with
WESTERN DUMP CARS

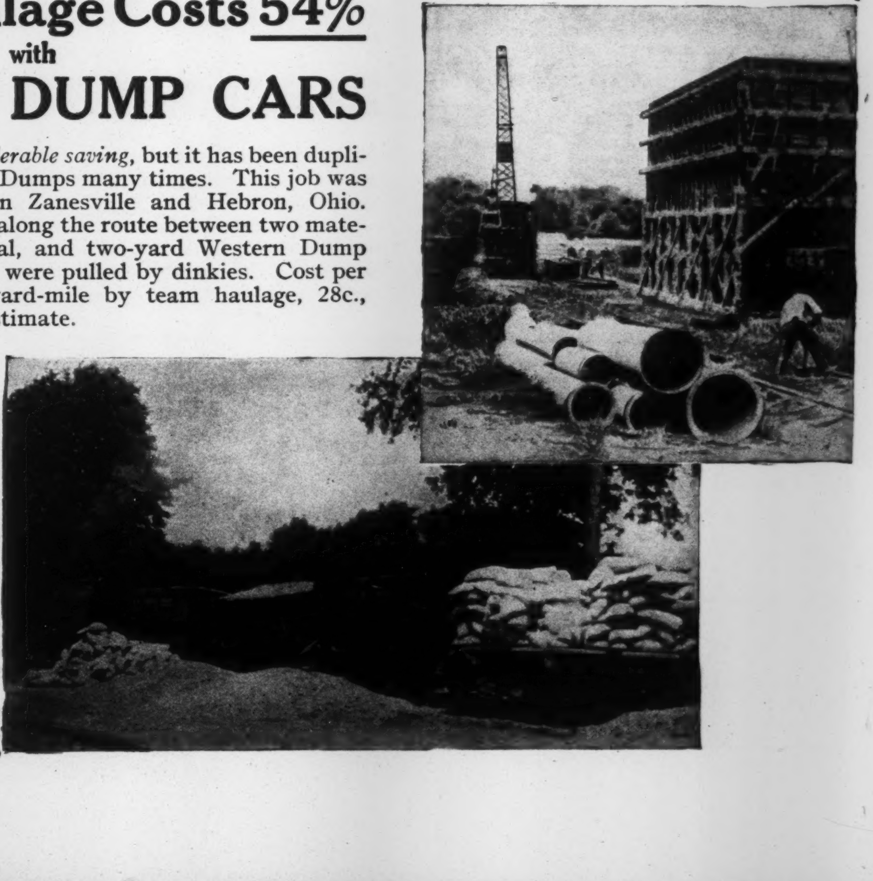
You will admit that is *considerable saving*, but it has been duplicated or beaten by Western Dumps many times. This job was a 21-mile highway between Zanesville and Hebron, Ohio. Narrow gage track was laid along the route between two material yards at either terminal, and two-yard Western Dump Cars, four cars to the train, were pulled by dinkies. Cost per yard-mile, 13c—cost per yard-mile by team haulage, 28c., according to contractors' estimate.

It pays to use these cars on any job from the Panama Canal (900 used) down.

Let us submit figures on your next material-handling job.

Glad to give you full details. Write for Catalog.

Western Wheeled Scraper Co.
Aurora, Ill.



The picture shows a Hydro-Electric Redwood Pipe Line

being installed in mountainous country.

Withstands Action of Acid, Oil and Grease

The pipe that is not destroyed by solutions of acids or salts nor corroded by sulphur or mineral waters or fumes is

REDWOOD PIPE

It's preserved by water, not rusted or corroded by it. Easy and inexpensive to install. Best for municipal water supply, irrigation, hydro-electric power plants or out-fall sewers.

Redwood Tanks for Water and Crude Oil Storage Mining Plants.

Redwood Manufacturers Co., Dept. A, 805 Kohl Bldg., San Francisco

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Economic Conveying Machinery

Our Engineering Force Is Ready to Act on Any Proposition—Large or Small

Consult us about reducing the cost of handling all kinds of raw and finished materials in Foundries, Iron Mills, Warehouses, Power Plants, Factories, Coaling Stations, etc.

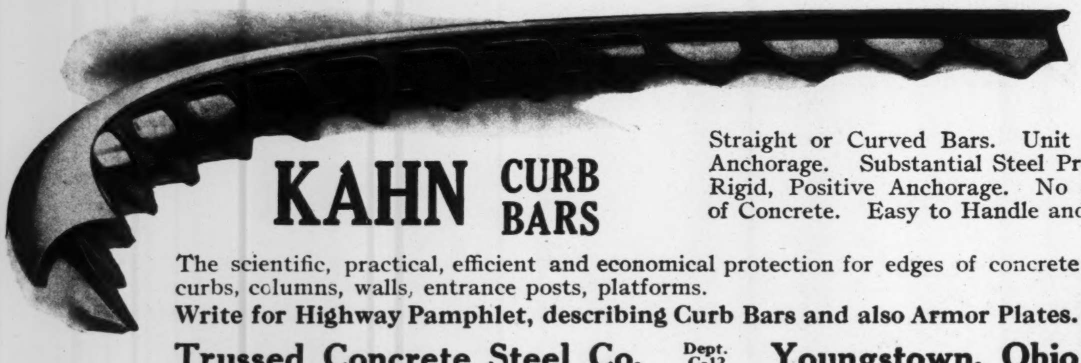
Our Engineering Corps will gladly go over any proposition you put up to them and submit suggestions and quotations covering any type of installation—large or small.

The "Hunt System" is known wherever economic conveying machinery has a use.

There are many instances on record where the "Hunt System" made it possible for one man to equal the working capacity of 25 men.

Just say you are interested and we'll get busy.

C.W. HUNT COMPANY Inc. West New Brighton. N.Y.



KAHN CURB BARS

Straight or Curved Bars. Unit of Plate Anchorage. Substantial Steel Protection. Rigid, Positive Anchorage. No Splitting of Concrete. Easy to Handle and Install.

The scientific, practical, efficient and economical protection for edges of concrete curbs, columns, walls, entrance posts, platforms.

Write for Highway Pamphlet, describing Curb Bars and also Armor Plates.

KAHN Building Products

Trussed Concrete Steel Co. Dept. C-12 **Youngstown, Ohio**

Contracts to Be Let

Bids received until Mar. 16, 1915.

Proposals for Oiling

State of Maryland
STATE ROADS COMMISSION
601 Garrett Building,
Baltimore, Md.

SEALED PROPOSALS for oiling 7 sections of State Highway, aggregating about 475 miles in length and requiring approximately 1,278,300 gallons of oil, as follows:

	County	Miles	Gallons
Salisbury Residency...	Worcester Somerset Wicomico Dorchester Caroline	55.33	145,680
Chestertown Residency	Talbot Queen Anne Kent Cecil	61.96	156,037
Baltimore Residency..	Harford Baltimore	83.88	238,776
Frederick Residency...	Frederick Carroll Howard	90.56	231,184
Cumberland Residency.	Washington Allegany Garrett	79.10	206,036
Hyattsville Residency..	Montgomery Washington Boulevard Annapolis Boulevard	70.86	215,758
La Plata Residency....	Charles St. Mary's Prince George	34.14	84,832

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Md., until 12 M. on the 16th day of March, 1915, at which time and place they will be publicly opened and read.

Bids must be made in writing for the work outlined in each Residency and upon forms which will be furnished by the State Roads Commission. Specifications will be furnished by the Commission upon application.

The successful bidder will be required to give a $5,000.00 bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission, this 1st day of March, 1915.

O. E. WELLER, Chairman.
WM. L. MARCY, Secretary.

⁂

Bids received until Mar. 23, 1915.

Street Paving

Meriden, Conn.

Sealed Proposals addressed to The Board of Public Works, City of Meriden, endorsed "Proposals for Street Paving," will be received by said Board until six o'clock P.M., Tuesday, March 23rd, 1915, for paving with Wood Block and Vitrified Brick, State Street from East Main Street to Lake Street. Plans, Specifications and blank forms of Proposals can be obtained upon personal application at the City Engineer's Office.

BOARD OF PUBLIC WORKS,
W. S. CLARK, Supt.

⁂

Bids received until Mar. 16, 1915.

Paving

Waycross, Ga.

Bids will be received by the Mayor and Board of Aldermen of Waycross, Ga., until 7:30 P.M., March 16th, 1915, for the construction of approximately 11,000 square yards of brick pavement on Carswell Avenue, on sand foundation (curbing already laid).

Plans and specifications on file at the office of the City Clerk.

A. C. LOWTHER, City Clerk.

Bids received until Mar. 15, 1915.

Street Paving

Steelton, Pennsylvania.

Sealed proposals will be received by the Town Council of the Borough of Steelton, Pennsylvania, at the Council Chamber until 7:30 P.M., Monday, March 15th, 1915, to be opened at a special meeting of the Town Council to be held at the said time and place for the subgrading, paving and curbing of the following streets:

South Third Street from Highland to DuPont, Highland Street from Second to Third and Conestoga Street from Front to Christian Street.

Plans, specifications, form of proposal and form of contract can be had from the Borough Secretary upon the payment of $10.00, which will be refunded upon the return of plans and specifications in good condition.

No proposal will be considered unless accompanied by a certified check made payable to LeRoy H. Sutton, Borough Treasurer, conditioned on the entering into by the successful bidder of a contract in accordance with the specifications and form provided, and furnishing a bond with at least two sureties, or some surety company acceptable to the Town Council, in the sum of approximately twenty-five per cent. (25%) of the cost of the work as set out in detail for each job in the specifications, conditioned for the faithful performance of all terms and conditions of said contract, the form of said bond to be approved by the Borough Solicitor; also maintenance bond conditioned as set forth in the contract and specifications. The amount of the certified checks shall be as follows: Highland Street, $100.00; South Third Street, $500.00; Conestoga Street, $600.00. In the event that the bid covers all of the streets to be paved the certified check shall be in the sum of $1,200.00.

The Town Council reserves the right to reject any or all bids or any part thereof.

Foreign corporations desiring to make bids should be registered in the office of the Secretary of the Commonwealth, as required by the Act of June 8th, 1911, and have a bona fide resident agent in this state with a fixed office, and as a further precaution to the Borough of Steelton, the successful bidder, if a foreign corporation, may at the option of the Town Council be required to empower some person or company satisfactory to the Town Council to accept service for said successful bidder during the term of the contract and bond.

CHAS. P. FEIDT, Borough Secretary.

⁂

Bids received until Mar. 23, 1915.

Street Improvements and Sewerage

Kinston, N. C.

Sealed proposals will be received by the City Council of the City of Kinston, N. C., at the City Hall in Kinston, N. C., until 5 P.M. March 23rd, 1915, for Street Improvements and Sewerage.

The work will consist of about:

12,000 sq.yds., or more, of Brick, Asphalt, Bitulithic, or other pavement.

30,000 lineal feet of concrete Curb and Gutter.

20,000 sq.yds. of Sidewalk.

8 miles of 8 to 18 inch pipe sewers.

Proposals must be marked, "Proposal for Street Improvements," or "Proposal for Sewerage."

All bids must be upon blank forms provided in the Proposal and Contract and Specifications.

Each bid must be accompanied by a certified check for $1000.00 as an evidence of good faith.

Plans and Specifications will be on file at the Clerk's Office in Kinston and at the office of the Engineer in Charlotte; and copies of the specifications, form of proposal, etc., will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by a check for ten dollars to insure their return within 30 days after the letting.

The right is reserved to reject any or all bids.

FRED I. SUTTON, Mayor.
Engineer: GILBERT C. WHITE,
Charlotte, N. C.

Bids received until Mar. 22, 1915.

City Hall

City of Watervliet, N. Y., February 27th, 1915.

Sealed proposals for the erection of a City Hall for the City of Watervliet, Albany County, N. Y., under the plans and specifications prepared by Messrs. Demers, Mosley & Campaigne, Architects, of Troy, N. Y., will be received by the Board of Contract & Supply of the City of Watervliet, N. Y., at its office, No. 1520 Broadway, Watervliet, N. Y., until Monday, March 22nd, 1915, at 2 o'clock P.M.

Each proposal for the complete work or any part of same must be filled out and signed by the bidder, together with a certified check for a sum equal to five per centum of the bid, payable to the Chamberlain of the City of Watervliet, N. Y., and placed in an envelope sealed and marked "Proposal for the Erection of City Hall, Watervliet, N. Y.," and delivered to the Clerk of the Board of Contract & Supply. Only such proposals so left and signed, accompanied with check, will, at that hour and place, be received. Bids will be acted on within one calendar month. The Board of Contract & Supply reserves the right to reject any and all bids. Plans and specifications are on file at the office of the Board of Contract & Supply, No. 1520 Broadway, Watervliet, N. Y., and also at the office of Messrs. Demers, Mosley & Campaigne, No. 203 Illium Building, Troy, N. Y. Bidders may obtain copies of same from the Clerk or architects by enclosing a check for $25.00 payable to the architects' order, and to be held by them until the return of plans and specifications.

BOARD OF CONTRACT & SUPPLY,
By WILLIAM B. DAUBNEY, Clerk.
DEMERS, MOSLEY & CAMPAIGNE, Architects,
Troy, N. Y.

⁂

Bids received until Mar. 23, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. Tuesday, March 23rd, 1915, for the improvement of Highways in the following counties:

Allegany (approx. length 9.52); Cattaraugus, 2 highways (6.98, 5.35); Columbia (approx. length 4.97); Erie (approx. length 4.48); Franklin (approx. length 0.22); Jefferson, 3 highways (2.86, 2.40, 0.51); Monroe (approx. length 0.66); Niagara (approx. length 8.33); Rensselaer (approx. length 2.11); Putnam (approx. length 0.13); Sullivan (approx. length 8.51).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "INFORMATION FOR BIDDERS" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

⁂

Bids received until Mar. 31, 1915.

Buttzville-Danville Road

Belvidere, Warren County, N. J.

Sealed proposals for the construction of a waterbound macadam road 5.755 miles long, known as the Buttzville-Danville Road, will be received by a Committee of the Board of Chosen Freeholders at the Courthouse in Belvidere, Warren County, New Jersey, on Wednesday, March 31, 1915, at 11:30 A.M.

Plans and specifications are on file and blank proposals may be obtained at the State Road Commissioner's office, Trenton, N. J., at the Danville Hotel, Danville, N. J., and at the Buttzville Hotel, Buttzville, N. J., also at the office of F. W. Salmon, County Engineer, Netcong, N. J.

Samples of approved materials are on file with the State Road Department and with the County Engineer and will be shown and explained to prospective bidders on request.

Plans and specifications may be purchased from the County Engineer upon payment of $5.00, which will not be refunded.

The right is reserved to reject any or all bids.

J. R. THATCHER, Director,
Board of Freeholders.

Bids received until Mar. 18, 1915.

Notice to Dredging Contractors

Xenia, Ohio.

Sealed bids are invited and will be received at the office of the Board of County Commissioners of Greene County, Ohio, up until 10 o'clock A.M., Thursday, March 18th, 1915, for the excavation of 144,183 Cubic Yards of earth, all of which is designed as floating dredge work, except about 1040 Cubic Yards which is designed as team work.

The work consists of the following:

Six & $^{42}/_{100}$ miles, 14 ft. bottom, ½ to 1 slopes, 143,140 Cubic Yards (Dredge Work),

$^{20}/_{100}$ miles, 14 ft. bottom, ½ to 1 slopes, 1043 Cubic Yards (Team Work).

Bids may be made for the whole or any part thereof. The right is reserved to reject any or all bids.

A deposit of a certified Check upon an active and going bank, payable to the order of the Board of County Commissioners of Greene County, Ohio, in the sum of Five hundred dollars, must be made by the successful bidder as a forfeit that he will enter into contract and give bond for the performance of the work.

The work is located at Alpha station, twelve miles east of Dayton, on the P. C. C. & St. L. Railway, the C. H. & D. Railway, and the Dayton & Xenia Traction Railway. It consists of, the deepening, widening and straightening of a stream called Beaver Creek. The work is located in a good country, with good gravel pikes.

Contractors are advised to see this piece of work.

Maps, profiles and specifications, or other information may be had by calling on or writing the County Surveyor and Engineer.

Board of County Commissioners of Greene County, O.,
By GEO. W. KENDALL, Clerk.
Xenia, Greene County, Ohio, February 25th, 1915.

⁂

Bids received until April 1, 1915.

Disposal of Garbage

Wilmington, Delaware.

Sealed proposals, accompanied by plans and specifications for the disposal of garbage of the City of Wilmington, Delaware, will be received by the Board of Health, at their office, 6th and King Sts., until 3 p.m. April First, 1915, at which time and place the proposals will be opened and publicly read.

The contract to be let, will be for a term of Nine years, beginning June First, 1915. The amount of garbage to be disposed of, approximates, 14,000 tons, yearly.

Each proposal submitted, must be accompanied by a certified check upon a Bank or Trust Company doing business in the City of Wilmington, Delaware for the sum of Five Hundred Dollars ($500), drawn to the order of the Mayor and Council of Wilmington, Delaware.

General specifications and bidding blanks may be obtained from Mr. J. Austin Ellison, Secretary of the Board of Health after March First, 1915.

The right is reserved to award the contract under that proposal, the acceptance of which will in the judgment of the Board of Health best secure the efficient performance of work and to reject any or all bids.

BOARD OF HEALTH,
J. Austin Ellison, Secretary.

⁂

Bids received until Mar. 31, 1915.

Bloomsbury-Still Valley Road

Belvidere, Warren County, N. J.

Sealed proposals for the construction of a waterbound macadam road 2.91 miles long, known as the Bloomsbury-Still Valley Road, will be received by a Committee of the Board of Chosen Freeholders at the Courthouse in Belvidere, Warren County, New Jersey, on Wednesday, March 31, 1915, at 2:00 P.M.

Plans and specifications are on file and blank proposals may be obtained at the State Road Commissioner's office, Trenton, N. J., at the Bloomsbury Hotel, Bloomsbury, N. J., and at the Union Square Hotel, Phillipsburg, N. J., also at the office of F. W. Salmon, County Engineer, Netcong, N. J.

Samples of approved materials are on file with the State Road Department and with the County Engineer and will be shown and explained to prospective bidders on request.

Plans and specifications may be purchased from the County Engineer upon payment of $5.00, which will not be refunded.

The right is reserved to reject any or all bids.

J. R. THATCHER, Director,
Board of Freeholders.

Bids received until Apr. 6, 1915.

To Bridge Contractors

Lake Charles, La.

Sealed bids will be received by the Police Jury, Calcasieu Parish, at the office of the Highway Department, Court House, Lake Charles, La., up to 10 o'clock a.m. April 6, 1915, for the construction of a steel highway swingbridge over Black Bayou on Highway No. 4.

Bids will be accepted on the following alternatives:

(1) The fabrication and delivery f.o.b. Lake Charles, of steelwork and turning machinery.

(2) The erection of the steelwork and machinery and the construction of the substructure.

(3) The supply and erection of both superstructure and substructure complete.

Plans and specifications are on file at the office of the Highway Department and copies of same may be obtained upon payment of five dollars ($5.00) which will be refunded upon receipt of a bona fide bid and the return of the plans and specifications.

Each bid must be accompanied by a certified check drawn on a bank doing business in Lake Charles and made payable to the Treasurer, Calcasieu Parish, for 5 per cent. of the amount of the bid.

The Police Jury reserves the right to reject any or all bids.

E. C. HOUSE, Clerk of the Police Jury.

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Bids received until Mar. 24, 1915.

Notice to Paving Contractors

Charleston, W. Va.

Sealed proposals will be received by the Board of Affairs of Charleston, West Virginia, until 10 o'clock a.m., Wednesday, March 24th, 1915, for curbing and paving fifteen (15) streets in the city of Charleston, West Virginia, containing approximately 40,700 ft. curb and 71,640 sq.yds. paving.

All well known classes of paving material will be considered.

Payments will be made in cash on monthly estimates.

A certified check payable to the order of Treasurer of The City of Charleston, amounting to two and one-half (2½) per cent. of bid, guaranteeing that successful bidder will enter into contract and furnish satisfactory bond to the amount of fifty (50) per cent. of the bid, must accompany each proposal.

The Board of Affairs reserves the right to reject any and all bids.

For plans and specifications or further information, apply to G. S. Brown, city engineer, Loewenstein building, Charleston, West Virginia.

By order of the Board of Affairs.

O. A. PETTY, President.

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Bids received until Mar. 29, 1915.

Cast Iron Pipe, Hydrants and Valves

Lewistown, Mont.

Sealed proposals will be received up to 8 o'clock P.M. of March 29th, A.D. 1915, at the office of the City Clerk, Lewistown, Montana, for

100 Ton C.I. Pipe
21 Valves
8 Hydrants

Specifications on application.

A. C. BIRKLAND, City Engineer.

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Wagons

The Siamese Royal Railway Department invites bids for 159 Goods and Cattle Wagons and spare parts. Specifications and drawings may be had from the Siamese Legation, Washington, D. C., on payment of fee of $4.00.

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U. S. ENGINEER OFFICE, Chicago, Ill., Feb. 27, 1915.—Sealed proposals for dredging in Indiana Harbor, Ind., will be received at this office until 10 a.m. March 29, 1915, and then publicly opened. Information on application. W. V. JUDSON, Lt. Col., Engineers.

U. S. ENGINEER OFFICE, Newport, R. I., Feb. 27, 1915.—Sealed proposals for dredging in Providence Harbor, R. I., will be received at the U. S. Engineer sub-office, Federal Building, Providence, R. I., until 12 o'clock noon, Mar. 30, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

Bids received until Mar. 18, 1915.

Kings Park State Hospital

Kings Park, N. Y.

Sealed proposals for additional accommodations for chronic patients, construction; heating; plumbing and drainage and electric work at Kings Park State Hospital, Kings Park, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 2:30 o'clock P.M. on Thursday, March 18, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of $2025.00 for Proposal No. 1 Construction Work; in the sum of $675.00 for Proposal No. 2 Construction Work; in the sum of $450.00 for Proposal No. 1 of Heating Work; in the sum of $150.00 for Proposal No. 2 of Heating Work; in the sum of $400.00 for Proposal No. 1 of Plumbing Work; in the sum of $150.00 for Proposal No. 2 of Plumbing Work; in the sum of $150.00 for Proposal No. 1 of Electric Work; and in the sum of $50.00 for Proposal No. 2 of Electric Work. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specifications Nos. 2128, 2134, 2135 and 2136. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Kings Park State Hospital, Kings Park, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York, for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher.

E. S. ELWOOD, Secretary.

Dated Albany, N. Y., February 27, 1915.

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Bids received until Apr. 15, 1915.

Construction of Artesian Wells, Municipal Water Works

Winona, Minnesota.

Sealed bids will be received by the Board of Municipal Works, of the City of Winona, Minnesota, up to 4 P.M. o'clock, April 15th, A.D. 1915, at the Board of Municipal Works office in the City Building in said city, for furnishing materials, tools and appliances, and drilling and constructing four artesian wells, each approximately 490 feet in depth, said wells to be located in the parked grounds of the public levee adjacent to the city water works of said city.

Specifications may be secured by applying at the water works office in Winona or at the office of the engineers in Chicago.

The right is reserved to reject any and all bids.

BOARD OF MUNICIPAL WORKS OF THE CITY OF WINONA, MINNESOTA.

Burr D. Blair, President.
S. S. Strouse, Secretary.

Alvord & Burdick, Engineers,
Hartford Bldg., Chicago.

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Bids received until Mar. 17, 1915.

Filtration Plant—Contract No. 6

Cleveland, Ohio.

Sealed bids or proposals for constructing a filtered water reservoir will be received at the office of the Commissioner of Purchases and Supplies, No. 511 City Hall, Cleveland, Ohio, till 12 o'clock noon of March 17, 1915.

The principal items are

Excavation and backfilling	**78,000 cu.yds.**
Concrete masonry	**26,500 cu.yds.**
Steel reinforcement	**520,000 lbs.**

Plans and specifications containing proposal blank may be obtained after March 3, 1915, on deposit of $25.00 with the Commissioner of Water, No. 413 Superior Ave., Cleveland, Ohio, which deposit may be redeemed on return of the plans in good condition.

No proposal will be entertained unless made on the proposal blank above mentioned and delivered at the office of the Commissioner of Purchases and Supplies previous to 12 o'clock noon on the day specified.

The City reserves the right to reject any and all bids.

Bids received until Mar. 26, 1915.

Dairy Building

Delhi, N. Y.

Sealed proposals for construction; heating; plumbing and drainage and electric work for Dairy Building for the State School of Agriculture and Domestic Science at Delhi, N. Y., will be received by Mr. William H. Maynard, President of the Board of Control, State School of Agriculture and Domestic Science, at the County Clerk's office, Delhi, N. Y., until 2 o'clock P.M. on Friday, March 26, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified chick in the sum of $1,150.00 for construction work; in the sum of $350.00 for heating work; in the sum of $160.00 for plumbing and drainage work and in the sum of $40.00 for electric work. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specifications Nos. 2183, 2178, 2179 and 2180. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the office of Mr. William H. Maynard, County Clerk, Delhi, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York, for each set of plans and specifications, which check will be returned when plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

W. H. MAYNARD,
President, Board of Control.

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U. S. ENGINEER OFFICE, Pittsburgh, Pa., March 6, 1915.—Sealed proposals for building a fire-proof power-house; furnishing and installing one 115-H.P. boiler, one 15-H.P. boiler, one steam-driven air compressor and two air receivers, piping and accessories, and furnishing one feed water heater, one feed water pump and one service water pump at Dam No. 10, Ohio River, will be received at this office until 12 M. (Eastern Standard time), April 5, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

U. S. ENGINEER OFFICE, Charleston, S. C., February 17, 1915.—Sealed proposals for dredging in Ashley River, S. C., will be received at this office until noon, March 19, 1915, and then publicly opened. Information on application. G. A. YOUNGBERG, Major, Engrs.

Bids received until Mar. 22, 1915.

Repairs and Additions to Beach Protection

City of Cape May, N. J.

The City of Cape May, N. J., will open sealed bids at 8:00 P.M. on March 22, 1915, at the Council chamber of said city, for the renewal, repair, and additions to Boardwalk, Beach Drive and Bulkhead affording additional protection to Beach Front.

Approximate quantities are: 5000 piles, 11,000 tons of stone, erection of 2500 lineal ft. of Boardwalk, 6000 cu.yds. of fill and 2000 cu.yds. of foreign gravel.

Plans and specifications are on file in the office of the City Recorder. A deposit of $5.00 will be required for each set, which will be refunded upon the return of the unused drawings and specifications in good condition or upon the return of the drawings in case a bid is submitted.

The City reserves the right to reject any or all bids as may be for the best interest of the city.

L. C. ASHBURN,
Acting Chmn. of Com. on Streets and Highways.
THOMAS W. MILLET,
City Recorder.
L. E. MILLER, JR.,
City Engineer.

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U. S. ENGINEER OFFICE, Pittsburgh, Pa., March 4, 1915.—Sealed proposals for furnishing and delivering steel maneuver-boat hulls, steamboat and hand capstans, derricks, kevels, spuds, etc., for Dams Nos. 10, 12, 15, 19, 20 and 29, and engines and electric light plants, etc., for maneuver boats at Dams Nos. 10 and 29, Ohio River, will be received at this office until 12 M. (Eastern Standard Time), April 3, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

U. S. ENGINEER OFFICE, New London, Conn., Feb. 18, 1915.—Sealed proposals for dredging in the Connecticut River below Hartford, will be received here until 2 o'clock p.m., Mar. 18, 1915, and then publicly opened. Information on application. G. B. PILLSBURY, Major, Engrs.

U. S. ENGINEER OFFICE, Galveston, Texas, February 15, 1915.—Sealed proposals for jetty and dike work at Aransas Pass, Texas, will be received at this office until 12 M., March 16, 1915, and then publicly opened. Information on application. C. S. RICHE, Lieut. Colonel, Engineers.

U. S. ENGINEER OFFICE, Duluth, Minn., Feb. 24, 1915.—Sealed proposals for constructing and delivering complete the steel hull, 4½ yard dipper dredge, "Col. D. D. Gaillard," will be received at this office until 10 o'clock a.m., March 26, 1915, and then publicly opened. Information on application. E. D. PEEK, Major, Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

LONG EXPERIENCE with dredging and contractors' plants; design, construction and maintenance; now engaged. P. W. 983, Eng. News.

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 881, Eng. News.

Civil Engineers

CIVIL ENGINEERING GRADUATE desires position as instrumentman. P. W. 833, Eng. News.

CIVIL ENGINEER, 30; single; eight years drainage, municipal, etc.; now in Southwest. P. W. 886, Eng. News.

GRADUATE CIVIL ENGINEER; six years' experience, structural drafting railroad work and factory construction. P. W. 906, Eng. News.

GRADUATE CIVIL ENGINEER; 9 years' experience; 4 in Latin America, railroads, docks, bridges, sugar mills, drainage surveys; American Society Associate Member; speak Spanish. P. W. 894, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT; Associate Member American Society; 8 years' experience, railroads, construction and maintenance bridges, docks, buildings, drainage and surveys; references. P. W. 893, Eng. News.

CIVIL ENGINEER, 27; five years' experience; railroad, city, land, surveys; building, bridge, construction; river improvement; competent construction man; efficient instrumentman; will consider any offer; location immaterial. P. W. 961, Eng. News, Chicago.

CIVIL ENGINEER, graduate; 12 years' practical experience with consulting engineers and utility companies; waterworks and other utilities; investigations, reports, design, construction, appraisals; references. P. W. 958, Eng. News.

CIVIL ENGINEER, graduate; 24; one year's excellent experience with U. S. Army Engineers; at present employed; desire change for better; salary not the main object. P. W. 955, Eng. News.

SUPERINTENDENT AND CIVIL ENGINEER wishes to locate with contractor, engineer or prominent industry; five years' experience in open and pneumatic construction in U. S. and Canada; shafts, piers, Ohio River dams, etc.; good executive, handle office work, purchasing, plant layouts, design equipment, etc. P. W. 950, Eng. News.

CIVIL ENGINEER; with 12 years' experience on railroad location and construction, sewers, reinforced concrete construction and municipal engineering is open for engagement. Associate Member, American Society of Civil Engineers. P. W. 930, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; 14 years' experience, including municipal, development of large tracts and farm surveys, railroad, stadia, triangulation, computating, drafting and general field and office work. Salary reasonable; good reference; 35 years old. P. W. 934, Eng. News.

GRADUATE CIVIL ENGINEER with long experience in general engineering work would like to take charge of engineering work of borough or town; can furnish all instruments; salary reasonable. P. W. 935, Eng. News.

YOUNG WIDE-AWAKE CIVIL ENGINEER. Former county engineer. Wide experience in highway, reinforced concrete, structural and difficult foundation work. A-1 labor organizer. Highest credentials in regard to ability and results. P. W. 942, Eng. News, Chicago.

CIVIL ENGINEER; technical graduate; Member American Society Civil Engineers; 16 years' broad field and office experience on design and construction; railroads, trolleys, highway, municipal, hydro-electric, preliminary investigations, plans and estimates, field office organization, specialties; excellent references; available Mar. 15; now in the East. P. W. 969, Eng. News.

GRADUATE C. E., 12 years' experience in railroads, municipal, hydraulic and frog and switch work, desires position in the East. P. W. 975, Eng. News, Chicago.

CIVIL ENGINEER; 33, Assoc. Mem. Am. Soc. C. E., Mem. Am. Soc. for Test. Mats., 15 years' technical training and broad field and office experience; structures; ship canal, locks, docks, dams, breakwaters, electric railways. Concrete testing expert. P. W. 987, Eng. News, Chicago.

CIVIL ENGINEER, 9 years' experience, surveys, reports, buildings, water works, sewers, principal assistant on large dam and for past three years principal assistant on river improvement, A-1 references. Education M. I. T. P. W. 988, Eng. News.

CIVIL ENGINEER (27), technical graduate, three years' experience concrete construction and railway maintenance, wants position as instrumentman; available immediately. P. W. 977, Eng. News, Chicago.

Bridge and Structural

BRIDGE AND STRUCTURAL ENGINEER with long experience holding responsible positions wishes to change location. P. W. 986, Eng. News.

STRUCTURAL WORK, 30 years' shop experience, 20 years in charge. P. W. 985, Eng. News.

STRUCTURAL ENGINEER, graduate; 10 years' experience on bridges, buildings, subways, special structures. Can take charge of work. P. W. 993, Eng. News.

STRUCTURAL ENGINEER; fifteen years' general experience desires position as designer or squad man. P. W. 995, Eng. News.

STRUCTURAL CHECKER; technical graduate; nine years' experience detailing and checking structural work. P. W. 979, Eng. News, Chicago.

Surveyors

RAILROAD RODMAN TOPOGRAPHER, just off 10 month job. Want similar position. P. W. 922, Eng. News.

Draftsmen

DRAFTSMAN, engineering and architectural; industrial plants; general construction and transit work; nine years' experience; references. P. W. 962, Eng. News.

FIRST-CLASS STRUCTURAL SQUADMAN and checker; 12 years' experience mill and office buildings, bridges, etc., with leading companies; desires position. P. W. 949, Eng. News.

DRAFTSMAN, five years' experience in detailing, mill, office and bridge work; have also checked. P. W. 974, Eng. News.

Superintendents, Etc.

SUPERINTENDENT OR GENERAL FOREMAN; past four years in charge unit methods of construction; also general experience in industrial buildings construction; age 31; unmarried; will go anywhere. P. W. 902, Eng. News, Chicago.

EXPERIENCED FOREMAN (with or without gang) seeks position on construction work; best reference. P. W. 952, Eng. News.

GRADUATE, ARCHITECTURAL ENGINEERING, 27, 2½ years' field and drafting experience, will start low with reputable architectural or building concern. Location immaterial. P. W. 926, Eng. News.

ENGINEER in charge or contracting manager; 40 years old, married, good health; fifteen years' experience handling all kinds of building construction as manager for large general contractors in U. S. Open for engagement with general contractor as assistant or manager of branch office already established or in new territory. Competent to organize and open office and to secure and profitably execute contracts of any magnitude. Location immaterial. P. W. 994, Eng. News, Chicago.

CONTRACTING ENGINEER, 28, married, technical education: Five years with large firm contracting engineers, doing pneumatic and open foundation work and miscellaneous contracting of heavy nature. Position required engineering and executive ability. Familiar with plant and modern contracting methods. Hustler. P. W. 989, Eng. News.

FOREMAN desires position; good organizer. Wide experience, state road and sewer construction. Strictly temperate; can furnish test of references. P. W. 990, Eng. News.

AS SUPERINTENDENT, general or templet shop foreman of bridge and structural plant, 20 years' experience. Will go anywhere. Reference. P. W. 991, Eng. News.

ENGINEER, 28, two years' experience on New York State highway construction; good instrumentman, estimator, supervisor of construction; technical graduate; desires position with contractor or consulting engineer. P. W. 945, Eng. News.

CONTRACTORS man, 35 years old, American, 15 years' genenral experience; wants a position on construction work. P. W. 992, Eng. News.

AS CONCRETE FOREMAN or as instrumentman; technical graduate; 3½ years' experience on concrete construction. P. W. 973, Eng. News.

BY CONCRETE EXPERT, as superintendent or foreman; wide experience in excavating, form building and all kinds of concrete work, including road paving bridges and culverts, retaining walls and buildings. P. W. 970, Eng. News, Chicago.

SALES-ENGINEER; five years traveling Eastern half of the United States, selling and promoting various building materials; open for engagement Mar. 1. P. W. 976, Eng. News.

EXPERT MAP MAKER and topographic draftsman; 15 years' field and office experience on all kinds of surveys, including U. S. Government Service; best references; at liberty Mar. 15. P. W. 980, Eng. News.

UNIVERSITY GRADUATE, 25, wants position in railroad maintenance work; good references. P. W. 982, Eng. News, Chicago.

ENGINEER-SUPERINTENDENT, broad experience on dredging contracts, plant design and operation, and examinations on bids; reference to past and present engagements. P. W. 984, Eng. News.

POSITIONS OPEN

EXPERIENCED STRUCTURAL ENGINEER, estimator and contractor. Must be capable of making detailed estimates of steel and iron work from architect's plans. Must be capable of designing. Must be graduate engineer. No one need apply unless experienced. State age, salary desired and give references and selling experience. P. 924, Eng. News, Chicago.

STRUCTURAL ESTIMATOR and salesman, experienced on light structural work and miscellaneous iron work; New York location; must have clean record; give full details and references in first letter. P. 963, Eng. News.

COMPETENT OIL ENGINE SALESMAN acquainted with construction as well as sale of crude oil engines above 100 hp. State age, experience and salary expected. P. 971, Eng. News.

ESTIMATOR and ENGINEER—Good position open in New Work City for first class designer of bridge and structural steel work and able and experienced estimator of shop costs; must be competent and experienced in up to date methods in redesigning structural steel work. Answers must state, in strict confidence, age, experience and salary expected and give sample of work describing method of computing costs and application of same to prospective work. E. N., Room 1110, 50 Pine Street, New York.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

WILLING TO PAY A GOOD BONUS to anyone instrumental in procuring the privilege to conduct a commissary (general store) on any construction work. L. B. 972, Eng. News.

WANTED

INDEX TO VOL. 71 (Jan.-June, 1914) and copies of Jan. 28, 1915, "Engineering News." Will pay 20 cents each. Subscription Department, Eng. News.

AGENTS AND SALESMEN

AGENTS WANTED for "Haiss" wagon loaders. Geo. Haiss Mfg. Co., 141st St. and Rider Ave., New York City, N. Y.

ENGINEERING REPRESENTATIVES—Agents with offices in all parts of the United States to represent the Thomas Method of reinforced concrete bridge construction. W. M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

BUSINESS OPPORTUNITIES

ENGINEER'S GRAND OPPORTUNITY—Long-established young contractor with unquestionable reputation and expert knowledge in the economical construction of public and private work and with exceptional ability in securing and executing profitable contracts desires to meet young graduate civil engineer who is willing to learn the contracting and construction line and take an active interest with an investment of from $15,000 to $25,000. B. O. 872, Eng. News.

GRADUATE CIVIL ENGINEER; 14 years' experience in general field and office work desires to purchase engineering business, paying $1500 to $2000 yearly or buy interest in reliable firm; good references. B. O. 936, Eng. News.

WANTED—Additional capital for $600,000 contract; assured profit of $70,000 in 12 months. B. O. 981, Eng. News.

FOR SALE

ENGINEERING NEWS for sale, 1910-1913, inclusive, eight volumes, half leather bound. F. S. 978, Eng. News, Chicago.

CONSTRUCTION ENGINEER.

Graduate C. E.; M. Am. Soc. C. E.; 42 years of age; good health; married. Good executive, manager or superintendent; 21 years' experience on design and supervision. Work has included masonry construction—plain and reinforced, stone and concrete; dams, retaining walls, bridge piers, etc.; rock and pile, wet and dry foundations; cofferdams; power plants and buildings; sewage disposal; water supply. Open for employment about April 1. Desires connection with and can invest in contracting or engineering firm. P. W. 896, Eng. News.

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

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ADDRESSES

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CARPENTER & Boxley & Herrick, Inc., 4th Ave. and 70th St., B'klyn, N. Y.
CONCORD CO., 117 Main St., Flemington, N. J. (Tel. 81 L.).
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition.—THEO. SMITH & SONS CO., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

2 Norwalk 700 cu.ft. and 1200 cu.ft.; excellent condition. Reason for selling, mine worked out. No further use for same.—HANDY BROS. MINING CO., Bay City, Mich.

BAILING PRESS

1 Dederick continuous bailing press.—CONCORD.

BOATS

[Wanted]

For use on Lake Ontario two boats, capacity 600 to 1000 tons, for carrying stone. Boats with modeled bow desired. Give present location, age, full description and price delivered at Toronto.—CANADIAN STEWART CO., LTD., 30 Church St., New York City.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

BONE MILL

3' Denmead bone mill with screen elevators.—CONCORD.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

CARS

[36" Gauge]

100 Western 4-yd. dump and 26 Koppel steel concrete.—CARPENTER.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

10—1 yd. swivel end dump cars.—PIPE.

[Wanted]

30 dump cars, 36" gauge.—W. 899, Eng. News.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

[Wanted]

36x18 or 24 Farrell Jaw.—SCHMIDT.

DERRICKS

1 Steel stiff leg, 70' boom; 1 steel guy, 70' boom, 25 tons cap.; 1 steel traveling, 45' boom.—GIVIN.

5 traveling, 50 HP. Lambert elec. hoists.—CARPENTER.

15' traveling derrick.—CONCORD.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

A 2½ yd., 80 ft. boom, vertical spuds, 2 boilers, loco. type, Marion deep water dredge, Factory No. 2219. Repairs kept up continually; in first class condition. Can be seen in operation 13 miles north of Las Animas, or 10 miles south of Arlington, Colo., during the next 60 days. Delivery can be made in April.—THE FORT LYON CANAL CO., Las Animas, Colorado.

DRILLS

6 Ingersoll, type F-24, and 2 class "C" Little Giant. rock drills.—BECKWITH.

Keystone traction No. 3 with placer equipment located at Prescott, Ariz.—L. J. HOHL, 525 Market St., San Francisco, Calif.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

ENGINES, STEAM

75-H.P. Diesel, cyl. 14x24, excellent condition.—CONCORD.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

FROGS & SWITCHES

11 split switches, 10 stiff keyed frogs, 15 low century switch stands, 18-15 ft. guard rails.—CONCORD.

GENERATORS

C. & C. 50-K.W. belted type generator, 650 revolutions, 230 volts, LaRoche Switchboard.—CONCORD.

HAMMERS

1 No. 4 Arnott.—PIPE.

HEATERS, FEED WATER

2 Blake 150 H.P. vertical water feed heaters.—CONCORD.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33" diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$115 Gurley Y Level, nearly new—$80. $165 Gurley No. 20 Explorers' Transit, nearly new—$118. Guaranteed. 99 others. Rentals, repairs, supplies. ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

Dietzgen Engineers' Transit, level attachment, 12' 2-fold stadia rod, steel 100' chain, 2 range poles. All in good condition. Lot for $125.—JOHN H. WINTER, Winterville, Ga.

For Sale at a Bargain—High-grade, very accurate engineer's three leveling screw transit, also wye level made by Otto Fennel Söhne. For full description and price address Mrs. Sewall Truax, Highland Park, Ill.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS.

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

5—11x16 Vulcan dinkies 1936 to 2039.—CARPENTER.

3—9x14 Porter dinkies 3146 to 3589.—CARPENTER.

A number of 9x14 and 10x16.—SCHMIDT.

[24" Gauge]

1—7x12 Vulcan, 3 months old.—SCHMIDT.

[Wanted]

2 locomotives, 36" gauge.—W. 898, Eng. News.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE.

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka with 3 H.P. D.C. motor, continuous; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

[Wanted]

No. 11 Koehring mixer with boom and bucket. Indiana or Illinois delivery preferred.—W. 965, Eng. News, Chicago.

PILING, SHEET STEEL

165 pcs. Lackawanna 14" arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

5000 pcs. Lackawanna, Carnegie, Jones & Laughlin, various widths and lengths. Send your inquiries.—GRIMSHAW.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

1 No. 8, 1 No. 9, 1 No. 10 Cameron.—MARINE.

2 Davidson Simplex 9x9x11.—MARINE.

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE.

1 No. 486 Emerson, 4" suc., 3" dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

3 Underwriters fire pumps cheap.—WHITNEY.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

Stilwell-Bierce pump, 7x4½x10, and 2 Deane Steam pumps, one No. 43,213, size 6x5¾x6, and one, 1½x2¾x4.—CONCORD.

RAILS

500 tons first-class 56 and 60 lb. rail.—CARPENTER.

40 ton of 35 lb. with fish plates.—PIPE.

100 tons 85 lb. steel rails, A. S. C. E., Sec. No. 235, with joints. Hunt's report on request.—CONCORD.

[Wanted]

2000 ft. 36" gauge track.—W. 897, Eng. News.

ROAD ROLLERS

For sale or to rent, tandem and 3-wheel steam road rollers.—F. S. 873, Eng. News.

10-ton Russell, 3 wheel; overhauled, $1100.—GRIMSHAW

Tandem roller in first-class condition at a bargain.—Write F. S. 967, Eng. News.

[Wanted]

10-ton macadam roller. Send description and price to W. 968, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

One—⅝ yd. Marion-Osgood. Traction.—SCHMIDT.

1 Bucyrus 14 B, new last August.—SCHMIDT.

1 Marion Model 60, 1439 with 1 standard and 1 special boom, and 1 Model 75, 2112.—CARPENTER.

⅝ yd. Thew No. O, traction wheels; first-class, $2250.—GRIMSHAW.

[Wanted]

¾ yd. traction type.—W. 900, Eng. News.

TANKS

3000-gal. oil tank, 20 ft. 4 in., 8 ft. diam.—CONCORD.

TRAVELING CRANES

1 15-ton electric 36' 6" span.— OUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

Maris Bros. 10-ton air crane, 72' 5" span.—CONCORD.

WHEELS, CAR

72 pairs 33-in. std. gage car wheels on axles.—CONCORD.

CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York.
Cable Address, Pawnee Havana.

Western Union & Lieber Codes Used.
Havana Office, Zulueta 36 D.

THE SNARE AND TRIEST COMPANY
Woolworth Building, 233 Broadway New York

FOR SALE

Air Reheaters
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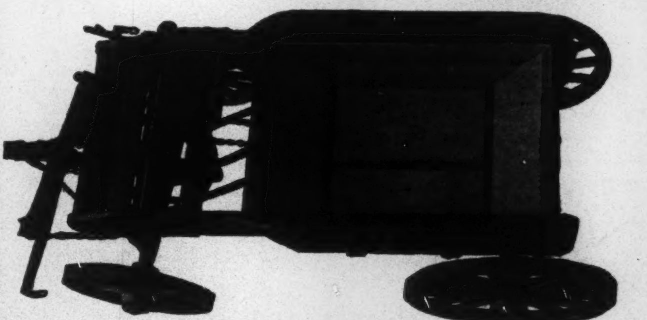
Man Locks
Pile Hammer
Pumps
Saw
Steel Pontoon
Spiral Pipe
Wrought Iron Pipe
Drill Steels

Apply to
Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.



For All-Round Haulage Economy

Western Dump Wagons

Characterized by long trouble-proof service. These wagons have side boards made of steel channels giving extra light, extra-strong construction which means easier traction and longer life.

Wherever you see Western Dump Wagons you see a contented contractor—and one who is making money.

They are worth investigation. Write for details.

Western Wheeled Scraper Co.
Earth and Stone Handling Machinery. Aurora, Ill.

Mechanical Filters

GRAVITY AND PRESSURE TYPES

MUNICIPAL AND INDUSTRIAL PURPOSES

Licensed under the JEWELL PATENTS
For "Down Draft" or "Negative Head."

The "Holyoke" Fire Hydrant

One of the oldest and best. Over 35 years old.

The Improved "Walker" Fire Hydrant

With Rubber-Faced Gate. Bronze Mounted.

Norwood Engineering Company
Florence, Mass.

"RENSSELAER" VALVES
All Sizes
All Pressures
All Purposes

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PITTSBURGH, 1016 House Building
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PITTSBURGH FILTER MFG. CO.
PITTSBURGH, PA.

Contractors for Municipal and Industrial Filters, Water Softeners and Sewage Disposal Plants

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FLEXIBLE JOINTS
COLDWELL-WILCOX CO
NEW WINDSOR NEWBURGH N.Y.

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The mark **DARLING** is to the Valve User The **BEST**
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Hydraulically and Electrically Operated Valves and Sluice Gates
Valves Designed for all Kinds of Service.
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THE PITOMETER COMPANY
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Norwood Engineering Co.
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THE NEW YORK CONTINENTAL JEWELL FILTRATION COMPANY
111 Monroe St., CHICAGO. Owners of the NEGATIVE HEAD FILTER PATENTS 15 Broad St., NEW YORK

Contracts to Be Let

Applications received until Apr. 10, 1915.

Competition

FOR ENTRANCE TO SCHENLEY PARK

Pittsburgh, Pa.

Prizes $500, $300 and $100. Open to engineers, architects and landscape architects. Applications to compete received until 1 P.M., April 10th, by

COMMITTEE ON COMPETITION,
634 Oliver Bldg., Pittsburgh.

⁂

Bids received until Apr. 12, 1915.

Reinforced Concrete Arches

Camden, N. J.

Separate sealed proposals are invited for constructing two reinforced concrete arches on Kings Highway for Camden County.

Plans and specifications are filed with the Engineering News, New York City; also with Fred. W. George, Clerk, Board Chosen Freeholders, Court House, Camden, N. J., who will mail a set to any address on receipt of $1.00 for each culvert. Bids will be received at Court House, Camden, immediately opened and publicly read on Monday, April 12th, at 11 A.M. Each bid must be accompanied by a certified check or cash in the sum of $1000.

FRED. W. GERCKE, Chairman Bridge Comm.
J. J. ALBERTSON, Co. Eng'r.
March 12, 1915.

⁂

Bids received until Mar. 22, 1915.

Repairs and Additions to Beach Protection

City of Cape May, N. J.

The City of Cape May, N. J., will open sealed bids at 8:00 P.M. on March 22, 1915, at the Council chamber of said city, for the renewal, repair, and additions to Boardwalk, Beach Drive and Bulkhead affording additional protection to Beach Front.

Approximate quantities are: 5000 piles, 11,000 tons of stone, erection of 2500 lineal ft. of Boardwalk, 6000 cu.yds. of fill and 2000 cu.yds. of foreign gravel.

Plans and specifications are on file in the office of the City Recorder. A deposit of $5.00 will be required for each set, which will be refunded upon the return of the unused drawings and specifications in good condition or upon the return of the drawings in case a bid is submitted.

The City reserves the right to reject any or all bids as may be for the best interest of the city.

L. C. ASHBURN,
Acting Chmn. of Com. on Streets and Highways.
THOMAS W. MILLET,
City Recorder.
L. E. MILLER, JR.,
City Engineer.

⁂

Bids received until Mar. 31, 1915.

Buttzville-Danville Road

Belvidere, Warren County, N. J.

Sealed proposals for the construction of a waterbound macadam road 5.755 miles long, known as the Buttzville-Danville Road, will be received by a Committee of the Board of Chosen Freeholders at the Courthouse in Belvidere, Warren County, New Jersey, on Wednesday, March 31, 1915, at 11:30 A.M.

Plans and specifications are on file and blank proposals may be obtained at the State Road Commissioner's office, Trenton, N. J., at the Danville Hotel, Danville, N. J., and at the Buttzville Hotel, Buttzville, N. J., also at the office of F. W. Salmon, County Engineer, Netcong, N. J.

Samples of approved materials are on file with the State Road Department and with the County Engineer and will be shown and explained to prospective bidders on request.

Plans and specifications may be purchased from the County Engineer upon payment of $5.00, which will not be refunded.

The right is reserved to reject any or all bids.

J. R. THATCHER, Director,
Board of Freeholders.

Bids received until Mar. 24, 1915.

Notice to Paving Contractors

Charleston, W. Va.

Sealed proposals will be received by the Board of Affairs of Charleston, West Virginia, until 10 o'clock a.m., Wednesday, March 24th, 1915, for curbing and paving fifteen (15) streets in the city of Charleston, West Virginia, containing approximately 40,700 ft. curb and 71,640 sq.yds. paving.

All well known classes of paving material will be considered.

Payments will be made in cash on monthly estimates.

A certified check payable to the order of Treasurer of The City of Charleston, amounting to two and one-half (2½) per cent. of bid, guaranteeing that successful bidder will enter into contract and furnish satisfactory bond to the amount of fifty (50) per cent. of the bid, must accompany each proposal.

The Board of Affairs reserves the right to reject any and all bids.

For plans and specifications or further information, apply to G. S. Brown, city engineer, Loewenstein building, Charleston, West Virginia.

By order of the Board of Affairs.

O. A. PETTY, President.

⁂

Bids received until Mar. 31, 1915.

Bloomsbury-Still Valley Road

Belvidere, Warren County, N. J.

Sealed proposals for the construction of a waterbound macadam road 2.91 miles long, known as the Bloomsbury-Still Valley Road, will be received by a Committee of the Board of Chosen Freeholders at the Courthouse in Belvidere, Warren County, New Jersey, on Wednesday, March 31, 1915, at 2:00 P.M.

Plans and specifications are on file and blank proposals may be obtained at the State Road Commissioner's office, Trenton, N. J., at the Bloomsbury Hotel, Bloomsbury, N. J., and at the Union Square Hotel, Phillipsburg, N. J., also at the office of F. W. Salmon, County Engineer, Netcong, N. J.

Samples of approved materials are on file with the State Road Department and with the County Engineer and will be shown and explained to prospective bidders on request.

Plans and specifications may be purchased from the County Engineer upon payment of $5.00, which will not be refunded.

The right is reserved to reject any or all bids.

J. R. THATCHER, Director,
Board of Freeholders.

⁂

Bids received until April 1, 1915.

Disposal of Garbage

Wilmington, Delaware.

Sealed proposals, accompanied by plans and specifications for the disposal of garbage of the City of Wilmington, Delaware, will be received by the Board of Health, at their office, 6th and King Sts., until 3 p.m. April First, 1915, at which time and place the proposals will be opened and publicly read.

The contract to be let, will be for a term of Nine years, beginning June First, 1915. The amount of garbage to be disposed of, approximates, 14,000 tons, yearly.

Each proposal submitted, must be accompanied by a certified check upon a Bank or Trust Company doing business in the City of Wilmington, Delaware for the sum of Five Hundred Dollars ($500), drawn to the order of the Mayor and Council of Wilmington, Delaware.

General specifications and bidding blanks may be obtained from Mr. J. Austin Ellison, Secretary of the Board of Health after March First, 1915.

The right is reserved to award the contract under that proposal, the acceptance of which will in the judgment of the Board of Health best secure the efficient performance of work and to reject any or all bids.

BOARD OF HEALTH,
J. Austin Ellison, Secretary.

Bids received until Apr. 6, 1915.

Electric Light Improvements

Kinston, N. C.

Sealed Proposals will be received until 5 P.M. of April 6, 1915, by the Mayor and City Council of Kinston, N. C., for Electric Light Plant Improvements.

New equipment includes 300 K.W. engine type generators, two belted generators, switchboard, 450 H.P. four-valve engine, condenser, centrifugal pump and motor, return tubular boilers. Bids on alternates to the above will be considered.

Building construction consists of extension to existing structures, station for centrifugal pumps, and about 1000 feet of terra cotta and cast-iron pipe line.

Each proposal must be accompanied by a certified check for not less than five per cent. of the amount of the proposal.

All proposals must be upon forms provided by the City.

The right is reserved to reject any or all bids.

Specifications, Proposal Form, and Plans will be on file in the office of the City Clerk at Kinston, N. C., and may be obtained from the office of the Consulting Engineer in Charlotte, N. C., upon application, accompanied by payment of five dollars, which will be refunded when Specifications and Plans are returned in good condition within thirty days after the date of receiving proposals.

FRED I. SUTTON, Mayor.
W. B. COLEMAN, Clerk.

Consulting Engineer:
GILBERT C. WHITE, Charlotte, N. C.

⁂

Bids received until Mar. 26, 1915.

Aluminum Sulphate

Office of Superintendent City Water Works,
Room 112, City Hall.
Richmond, Va., March 12, 1915.

SEALED PROPOSALS will be received at this office until 12 M. March 26, 1915, for furnishing eight hundred (800) tons aluminum sulphate, high basicity, for water clarification, containing from seventeen to twenty-two per cent. aluminum oxide, delivered f.o.b. Korah Station, Chesapeake & Ohio Railway, in barrels, at such time and in such quantity as the superintendent may require.

Further information can be obtained from this office.

The Administrative Board reserves the right to reject any or all proposals, or any part of any or all proposals, also to increase or decrease the specified quantities twenty per cent.

A certified check for two hundred dollars, payable to the City Treasurer, must accompany each bid.

Proposals must be submitted in sealed envelopes, containing the name and address of the bidder, directed to the Administrative Board, and in the lower left-hand corner must be written "Proposals for Aluminum Sulphate."

Bond will be required on contract.

E. E. DAVIS, Superintendent.

⁂

Bids received until Mar. 22, 1915.

Seawall, Bulkhead, Etc.

Bradley Beach, N. J.

Proposals for furnishing materials and labor for the construction of about 66 lineal feet of either reinforced concrete or creosoted timber sea-wall; about 140 lineal feet of creosoted or plain timber jetty and bulkhead; about 800 lineal feet of wrought-iron outlet pipe, with special fittings laid into the ocean from sewage tank; all of said work being located on the beach at the easterly end of Ocean Park Avenue, in the borough of Bradley Beach, N. J., will be received at the Council Chamber at the corner of Main Street and La Reine Avenue at 8 p.m., Monday, the 22d day of March, 1915.

Plans and specifications may be obtained at the office of the borough clerk, 624 Brinley Avenue.

Bidders will be required to deposit with their proposal a certified check in the amount of $500 as a guarantee that they will enter into a contract if awarded all or any part of such work.

The Common Council reserves the right to accept or reject any or all bids, and to waive any informality in the bids received where it is for the interest of the Borough so to do.

Dated 8th day of March, 1915.

CHARLES F. BURNEY, Borough Clerk.

⁂

U. S. ENGINEER OFFICE, Room 325 Custom House, New Orleans, La., Mar. 13, 1915.—Sealed proposals for furnishing and delivering about 10,000 cubic yards stone at South Pass and Southwest Pass, Mississippi River, will be received at this office until 11 A.M., April 13, 1915, and then publicly opened. Information on application. EDWARD H. SCHULZ, Maj., Engrs.

Bids received until Mar. 31, 1915.

Sale of Paving Warrants

Fargo, N. Dak.

Paving Warrants of the City of Fargo for about $140,000.00 will be sold March 31, 1915.

Bids will be received by the Board of Commissioners until 10:30 a.m., March 31, 1915, for the purchase of these warrants. Certified check for $500.00, payable to the City, shall accompany each bid.

Each bidder shall state:

1. The lowest rate of interest at which these warrants will be taken at par.

2. The premium, if any, which will be paid for the warrants if issued with six (6) per cent. interest, payable annually.

3. Separate proposal for purchase of warrants if issued with privilege of prior payment.

This issue of warrants will mature in annual installments extending over a period of fifteen (15) years; will have annexed coupons representing annual interest and will be in denominations of $500 or $1,000, as the City Commission may decide at the time bids are considered.

The warrants will be issued and delivered to the successful bidder June 1st of the current year. Bids may be submitted for a part of this issue of warrants.

A. R. WATKINS, City Auditor.

Dated, March 12, 1915.

⁂

Bids received until Apr. 5, 1915.

Street Paving

Cumberland, Md.

SEALED proposals addressed to the Mayor and City Council of Cumberland, Md., will be received at the Office of the City Clerk, City Hall, endorsed "Proposals for Grading, Curbing, Paving and otherwise Improving Streets, under Cumberland City Paving Bonds," on or before 9:30 A.M. Monday, April 5th, 1915.

There are sixteen (16) Streets to be paved with Brick on Concrete Base, approximately there will be 57,000 square yards, requiring about two and a half million bricks.

BIDS may be made for the whole number of Streets, or for each street separately, to suit Bidders.

Plans and Specifications can be procured at the Office of the City Engineer, for which $1.00 per street will be charged, to be refunded on return of Plans in good order. A certified check for $50.00 must accompany Bid on each Street, to be returned after award of successful Bidder is announced.

Bids must be in the hands of the City Clerk, at the City Hall, Cumberland, Maryland, not later than 9:30 A.M., April 5th, at such time and place said Bids will be opened.

The Mayor and City Council of Cumberland reserve the right to reject any and all bids.

JAMES P. GAFFNEY, City Engineer.

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Bids received until Apr. 6, 1915.

To Bridge Contractors

Lake Charles, La.

Sealed bids will be received by the Police Jury, Calcasieu Parish, at the office of the Highway Department, Court House, Lake Charles, La., up to 10 o'clock a.m. April 6, 1915, for the construction of a steel highway swingbridge over Black Bayou on Highway No. 4.

Bids will be accepted on the following alternatives:

(1) The fabrication and delivery f.o.b. Lake Charles, of steelwork and turning machinery.

(2) The erection of the steelwork and machinery and the construction of the substructure.

(3) The supply and erection of both superstructure and substructure complete.

Plans and specifications are on file at the office of the Highway Department and copies of same may be obtained upon payment of five dollars ($5.00) which will be refunded upon receipt of a bona fide bid and the return of the plans and specifications.

Each bid must be accompanied by a certified check drawn on a bank doing business in Lake Charles and made payable to the Treasurer, Calcasieu Parish, for 5 per cent. of the amount of the bid.

The Police Jury reserves the right to reject any or all bids.

E. C. HOUSE, Clerk of the Police Jury.

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U. S. ENGINEER OFFICE, Chicago, Ill., Feb. 27, 1915.—Sealed proposals for dredging in Indiana Harbor, Ind., will be received at this office until 10 a.m. March 29, 1915, and then publicly opened. Information on application. W. V. JUDSON, Lt. Col., Engineers.

Bids received until Mar. 26, 1915.

Dairy Building

Delhi, N. Y.

Sealed proposals for construction; heating; plumbing and drainage and electric work for Dairy Building for the State School of Agriculture and Domestic Science at Delhi, N. Y., will be received by Mr. William H. Maynard, President of the Board of Control, State School of Agriculture and Domestic Science, at the County Clerk's office, Delhi, N. Y., until 2 o'clock P.M. on Friday, March 26, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified chick in the sum of $1,150.00 for construction work; in the sum of $350.00 for heating work; in the sum of $160.00 for plumbing and drainage work and in the sum of $40.00 for electric work. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specifications Nos. 2183, 2178, 2179 and 2180. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the office of Mr. William H. Maynard, County Clerk, Delhi, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York, for each set of plans and specifications, which check will be returned when plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

W. H. MAYNARD,
President, Board of Control.

⁂

Bids received until Apr. 6, 1915.

Pumping Station and Pump

Lynchburg, Va.

Sealed proposals for the Installation of an Emergency Pumping Station and Booster Pump, addressed to the Council Committee on Water, and suitably endorsed, will be received by the Council Committee on Water, at Lynchburg, Va., until 12 noon, of Tuesday, the 6th day of April, 1915, and on that day in the Committee Room, Krise Building, the bids will be publicly opened and read.

Each bid must be accompanied by a certified check for five per cent. (5%) of the amount bid, made payable to Y. P. Marshall, Chairman of the Water Committee. This check will be returned to the bidder unless he fails to execute the contract should it be awarded to him.

A bond for twenty-five per cent. (25%) of the contract price will be required for the faithful performance of the contract, the sureties to be a substantial Surety Company satisfactory to the Water Committee, and authorized by law to do business in the State of Virginia. No personal surety will be accepted.

The Items of work to be done are as follows:

Division No. 1—Two brick buildings.

Division No. 2—Three centrifugal pumps.

Division No. 3—Transformers, motors, and other electrical equipment.

Division No. 4—Cast iron pipe, valves, etc.

Division No. 5—Liquid chlorine apparatus.

The Water Committee reserves the right to reject any or all bids should they deem it to be for the interest of the City of Lynchburg to do so.

H. L. SHANER, City Engineer.

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U. S. ENGINEER OFFICE, Newport, R. I., Feb. 27, 1915.—Sealed proposals for dredging in Providence Harbor, R. I., will be received at the U. S. Engineer sub-office, Federal Building, Providence, R. I., until 12 o'clock noon, Mar. 30, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

U. S. ENGINEER OFFICE, Pittsburgh, Pa., March 6, 1915.—Sealed proposals for building a fire-proof power-house; furnishing and installing one 115-H.P. boiler, one 15-H.P. boiler, one steam-driven air compressor and two air receivers, piping and accessories, and furnishing one feed water heater, one feed water pump and one service water pump at Dam No. 10, Ohio River, will be received at this office until 12 M. (Eastern Standard time), April 5, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

Bids received until Apr. 2, 1915.

Sewage Disposal Works, Pumping Station and Machinery

York, Pa.

Sealed proposals will be received by C. P. Shreiner, City Clerk, at City Hall, York, Pa., until 1:30 P.M., Apr. 2, 1915, for constructing Sewage Disposal Works and Pumping Station under "Contract A" and furnishing and installing machinery under "Contract B."

"Contract A" includes 3 settling tanks with outside measurements of about 83 feet square and 28 feet deep, with appurtenances, and a pumping station building, having concrete sub-structure and brick super-structure 26 feet wide by 58 feet long.

"Contract B" will include the furnishing and installing of all operating machinery including 3 five million gallon, motor driven pumps, 1 ten million gallon, gasoline engine driven pump, and various appurtenances.

Proposals for "Contract A" must be accompanied by a certified check on a National Bank for Twenty-five Hundred ($2,500) Dollars.

Proposals for "Contract B" must be accompanied by a certified check for Five Hundred ($500) Dollars.

The City reserves the right to reject any or all bids.

Plans and specifications may be obtained at the office of George W. Fuller, Consulting Engineer, 170 Broadway, New York, and at the office of the City Engineer, City Hall, York, Pa., upon a deposit of Ten ($10) Dollars, which sum will be refunded if the plans and specifications are returned in good condition within two weeks after bids are received.

Bids must be made on the Blank Form of Proposal bound with the specifications, and in case it is desired to bid on both contracts each bid shall be made in a separate pamphlet.

C. A. BOYER,
Superintendent of Streets & Public Improvements,
City Hall, York, Pa.

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Bids received until Mar. 31, 1915.

Animal Building

Rosebank, N. Y.

Sealed proposals for Animal Building, for the Port of New York, at the Quarantine Station, Rosebank, Staten Island, N. Y., Construction, Heating, Plumbing and Drainage and Gas Piping and Electric Work, will be received by Dr. Joseph J. O'Connell, Health Officer of the Port of New York, Quarantine Station, Staten Island, N. Y., until March 31, 1915, at 11:30 A.M., when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of $300.00 for Construction Work, $30.00 for Heating Work, $70.00 for Plumbing, Drainage and Gas Piping and $50.00 for Electric Work. Contractors to whom the awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specifications Nos. 2133, revised, 2148, 2149 and 2150. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the office of the Health Officer, Port of New York, Rosebank, Staten Island, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

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Bids received until Mar. 29, 1915.

Cast Iron Pipe, Hydrants and Valves

Lewistown, Mont.

Sealed proposals will be received up to 8 o'clock P.M. of March 29th, A.D. 1915, at the office of the City Clerk, Lewistown, Montana, for

100 Ton C.I. Pipe
21 Valves
8 Hydrants

Specifications on application.

A. C. BIRKLAND, City Engineer.

Bids received until Mar. 23, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. Tuesday, March 23rd, 1915, for the improvement of Highways in the following counties:

Allegany (approx. length 9.52); Cattaraugus, 2 highways (6.98, 5.35); Columbia (approx. length 4.97); Erie (approx. length 4.48); Franklin (approx. length 0.22); Jefferson, 3 highways (2.86, 2.40, 0.51); Monroe (approx. length 0.66); Niagara (approx. length 8.32); Rensselaer (approx. length 2.11); Putnam (approx. length 0.13); Sullivan (approx. length 8.51).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "INFORMATION FOR BIDDERS" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

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Bids received until Mar. 26, 1915.

Water Works Supplies

Office of Superintendent City Water Works,
Room 112, City Hall.
Richmond, Va., March 12, 1915.

SEALED PROPOSALS will be received in this office until 12 M. March 26, 1915, for the following supplies and contract work:

Gate valves, cast-iron pipe, special castings, three-nozzle fire hydrants, valve boxes, meters, meter boxes, pig lead, wiping solder, brass work, lead pipe and hauling.

Specifications, plans and information can be obtained in this office, and bids must be made on form of proposal furnished by this office.

The Administrative Board reserves the right to increase or decrease the specified quantities twenty per cent. and the right to reject any or all proposals. A certified check for $100, payable to the City Treasurer, must accompany each bid. Bond will be required on each contract awarded.

E. E. DAVIS, Superintendent.

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FORT MONROE, Va., Mar. 17, 1915.—Sealed proposals will be received here until 12 M., Apr. 15, 1915, for furnishing material and labor required in Constructing Alterations of Casemates and Addition to Quartermaster Stables, including Plumbing and Electric Lighting. Information furnished on application to QUARTERMASTER.

U. S. ENGINEER OFFICE, Duluth, Minn., Feb. 24, 1915.—Sealed proposals for constructing and delivering complete the steel hull, 4½ yard dipper dredge, "Col. D. D. Gaillard," will be received at this office until 10 o'clock a.m., March 26, 1915, and then publicly opened. Information on application. E. D. PEEK, Major, Engrs.

U. S. ENGINEER OFFICE, 540 Federal Building, Buffalo, N. Y., March 16, 1915.—Sealed proposals for dredging in Niagara River, N. Y., will be received at this office until 11 a.m., April 15, 1915, and then publicly opened. Information on application. J. G. WARREN, Col., Engrs.

⁂

Bids received until Apr. 3, 1915.

Repaving South Main Street

Phillipsburg, N. J.

Sealed bids will be received by the Commissioners of The Town of Phillipsburg, at the Town Hall, Phillipsburg, New Jersey, until 2 o'clock p.m., April 3rd, 1915, for the repaving of South Main street, upon the present concrete foundation.

Schedule A for 10,500 sq.yds. vitrified block.
Schedule B for 20,800 sq.yds. vitrified block.
Schedule C for 10,500 sq.yds. wood block.
Schedule D for 20,800 sq.yds. wood block.

Specifications, blanks, proposals and instructions to bidders may be had at The Town Hall.

All bids must be accompanied by a certified check for $500.00 made payable to the Treasurer of the Town of Phillipsburg as a guarantee for the execution of contract and bond satisfactory to The Board of Commissioners of The Town and approved by the Town Solicitor.

The Commissioners reserve the right to reject any or all bids.

ROBERT P. HOWELL,
Commissioner of Streets and Public Improvements.

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Bids received until Apr. 7, 1915.

Main Intercepting Sewer

Fitchburg, Mass.

Sealed proposals will be received by the Board of Sewage Disposal Commissioners at their office, 745 Main Street, Fitchburg, Mass., until 3 o'clock p.m., Wednesday, April 7, 1915, for the construction of Section 7 of the main intercepting sewer covering a distance of about 3400 feet. Plans and specifications may be obtained at the office of the Commission upon the deposit of $5.00. The right is reserved to reject any and all bids, or to accept any bid should the Commissioners deem it for the interest of the city so to do.

ARTHUR H. LOWE,
DAVID M. DILLON,
DANIEL A. BOYLE,
Sewage Disposal Commissioners.
DAVID A. HARTWELL,
Chief Engineer.

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U. S. ENGINEER OFFICE, Nashville, Tenn., March 13, 1915.—Sealed proposals for construction and erection of steel gates for Locks B and C, Cumberland River, will be received at this office until 11 a.m., April 12, 1915, and then publicly opened. Information on application. H. BURGESS, Major, Engineers.

GOVERNORS ISLAND, N. Y. H., Mar. 15, 1915.—Sealed proposals, in triplicate, for furnishing Forage and Straw (three months' and a year's supply) and FUEL, GASOLINE, MINERAL OIL, BEEF and MUTTON, required in Eastern Department during year commencing July 1, 1915, will be received here until 11 a.m., April 14, 1915. Information furnished on application to Department Quartermaster.

U. S. ENGINEER OFFICE, Pittsburgh, Pa., March 4, 1915.—Sealed proposals for furnishing and delivering steel maneuver-boat hulls, steamboat and hand capstans, derricks, kevels, spuds, etc., for Dams Nos. 10, 12, 15, 19, 20 and 29, and engines and electric light plants, etc., for maneuver boats at Dams Nos. 10 and 29, Ohio River, will be received at this office until 12 M. (Eastern Standard Time), April 3, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

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Classified Advertising

POSITIONS WANTED

Mechanical and Electrical Engineers

LONG EXPERIENCE with dredging and contractors' plants; design, construction and maintenance; now engaged. P. W. 983, Eng. News.

MECHANICAL ENGINEER, designer, draftsman, desires position with first class firm. P. W. 18, Eng. News.

MECHANICAL ENGINEER; good technical education, seven years' experience drafting, designing and working out of drafting-room system; experienced in English and German correspondence; first-class references; New York interview. P. W. 996, Eng. News.

MECHANICAL ENGINEER, graduate, two years' designing automatic match machinery and three years of engineering and designing with cement company. P. W. 8, Eng. News, Chicago.

Civil Engineers

CIVIL ENGINEER, 27; five years' experience; railroad, city, land, surveys; building, bridge, construction; river improvement; competent construction man; efficient instrumentman; will consider any offer; location immaterial. P. W. 961, Eng. News, Chicago.

CIVIL ENGINEER, graduate; 12 years' practical experience with consulting engineers and utility companies; waterworks and other utilities; investigations, reports, design, construction, appraisals; references. P. W. 958, Eng. News.

CIVIL ENGINEER; with 12 years' experience on railroad location and construction, sewers, reinforced concrete construction and municipal engineering is open for engagement. Associate Member, American Society of Civil Engineers. P. W. 930, Eng. News, Chicago.

CIVIL ENGINEER; 33, Assoc. Mem. Am. Soc. C. E., Mem. Am. Soc. for Test. Mats., 15 years' technical training and broad field and office experience; structures; ship canal, locks, docks, dams, breakwaters, electric railways. Concrete testing expert. P. W. 987, Eng. News, Chicago.

CIVIL ENGINEER, 9 years' experience, surveys, reports, buildings, water works, sewers, principal assistant on large dam and for past three years principal assistant on river improvement, A-1 references. Education M. I. T. P. W. 988, Eng. News.

GRADUATE CIVIL ENGINEER; six years' varied experience in design and construction work with engineers and contractors. P. W. 27, Eng. News.

GRADUATE CIVIL ENGINEER, 21, single, one year's experience, wishes to change to firm offering good opportunities; not afraid of hard work. P. W. 9, Eng. News.

CIVIL ENGINEER; college graduate; Assoc. M. Am. Soc. C. E.; 10 years' experience, design and construction, docks, bridges, roads, canals, surveys. P. W. 21, Eng. News.

CIVIL ENGINEER, 30; eight years' experience in swamp drainage, sewers and general municipal engineering. P. W. 22, Eng. News.

CIVIL ENGINEER, 27, technical graduate, desires change; held responsible positions in irrigation location and construction, railway maintenance, cement and concrete work; now in Government service. P. W. 24, Eng. News.

CIVIL ENGINEER, graduate, three years' general experience, foundations, concrete, railroad work, desires position with consulting engineer, general practitioner or contracting concern. P. W. 25, Eng. News.

GRADUATE CIVIL ENGINEER, available Apr. 1; no particular qualifications, wants position: assistant engineer, transitman or general assistant; has been engaged in various kinds of work, railroad, heavy construction, concrete; can handle men; speaks two European languages; prefers New York, but would go abroad, or anywhere in the United States. P. W. 26, Eng. News.

Bridge and Structural

BRIDGE AND STRUCTURAL ENGINEER with long experience holding responsible positions wishes to change location. P. W. 986, Eng. News.

STRUCTURAL ENGINEER, graduate; 10 years' experience on bridges, buildings, subways, special structures. Can take charge of work. P. W. 993, Eng. News.

STRUCTURAL ENGINEER; fifteen years' general experience desires position as designer or squad man. P. W. 995, Eng. News.

STRUCTURAL ENGINEER, graduate, 10 years' experience designing bridges, industrial plants, water-supply, filtration, hydro-electric power. P. W. 10, Eng. News.

STRUCTURAL ENGINEER, estimator and checker, desires position; 10 years' experience with leading firms in New York; mill and office buildings a specialty. P. W. 3, Eng. News.

STRUCTURAL AND CONCRETE ENGINEER with long experience is open for position; best references. P. W. 5, Eng. News.

EXPERIENCED BRIDGE AND STRUCTURAL engineer, university graduate, wishes engagement in the Pittsburgh district. P. W. 30, Eng. News.

AN A-1 STRUCTURAL MAN; 6 years foreman templet shop, 7 years superintendent small shop, 8 years general foreman shop fabricating 20,000 tons per year; open for engagement; best of references. P. W. 17, Eng. News.

Surveyors

RAILROAD RODMAN TOPOGRAPHER, just off 10 months' job; wants similar position. P. W. 922, Eng. News.

Draftsmen

DRAFTSMAN, five years' experience, technical education, reliable, industrious, desires a change; New York interview. P. W. 998, Eng. News.

Superintendents, Etc.

AS SUPERINTENDENT, general or templet shop foreman of bridge and structural plant, 20 years' experience. Will go anywhere. Reference. P. W. 991, Eng. News.

BY CONCRETE EXPERT, as superintendent or foreman; wide experience in excavating, form building and all kinds of concrete work, including road paving bridges and culverts, retaining walls and buildings. P. W. 970, Eng. News, Chicago.

UNIVERSITY GRADUATE, 25, wants position in railroad maintenance work; good references. P. W. 982, Eng. News, Chicago.

ENGINEER-SUPERINTENDENT, broad experience on dredging contracts, plant design and operation, and examinations on bids; reference to past and present engagements. P. W. 984, Eng. News.

EXPERIENCED FOREMAN (with or without gang) seeks position on construction work; best reference. P. W. 11, Eng. News.

AN ENGINEER OR SUPERINTENDENT of municipal affairs or to act as such on public-utility construction for private or public corporation; by former city manager and municipal engineer with technical education and six years' experience in every class of municipal activity—four as city engineer and two as city manager; will furnish data based on my experience of two years as city manager to cities desirous of adopting the city manager plan; employed at present as engineer of municipal affairs at salary of $1800; best of references; can report at once. Kenyon Riddle, Abilene, Kan.

DIPPER DREDGE SUPERINTENDENT, 10 years' wide experience, three full charge, will operate; best references. P. W. 6, Eng. News.

SUPERINTENDENT having 15 years' experience in charge of steam-shovel work on railways and canals construction wishes position by Apr. 1 with reliable contractor. P. W. 7, Eng. News, Chicago.

YOUNG MAN wishes position as concrete foreman or carpenter foreman; 7 years' experience; good reference. P. W. 14, Eng. News.

SUPERINTENDENT of paving; 22 years' experience with all kind of paving; a thorough organizer; temperate; P. W. 15, Eng. News.

GRADUATE ENGINEER, available immediately; 8 years' experience, 5 in charge of work; reinforced concrete, hydro-electric developments, including investigation and construction, brick pavements and railroads; excellent references. P. W. 16, Eng. News.

SUPERINTENDENT of construction with 15 years' experience on heavy steam shovel work, earth and rock; good organizer; excellent references. P. W. 23, Eng. News.

SUPERINTENDENT or foreman; 20 years' practical experience on construction work; good organizer and a hustler. J. F. Naughton, 54 Cameron St., Rochester, N. Y.

CONTRACTING ENGINEER; 29, married, technical education; 5 years as principal assistant and right hand man on $5,000,000 of work to vice-president and chief engineer of large firm of contracting engineers on heavy pneumatic open foundation bridge work and general contracting; position required engineering and executive ability. P. W. 19, Eng. News.

FOREMAN with several years' experience as timekeeper, paymaster and cost keeper wants position on general contract work in East; age, 30; best references. P. W. 20, Eng. News.

CITY MANAGERSHIP by a reputable civil engineer who can qualify as a competent city and highway engineer, having a practical experience of 12 years as an assistant and chief railroad engineer; six years as a city engineer; nine years as a chief highway engineer; for the past six years, and at present, engineer and promoter for one of the largest paving contractors in the U. S.; I am middle-aged and very active. P. W. 29, Eng. News, Chicago.

FIRST-CLASS GENERAL BUILDING construction estimator desires position in or near N. Y. City; 14 years' experience. P. W. 4, Eng. News.

SUPERINTENDENT OF CONSTRUCTION; 35; 15 years' practical experience reinforced-concrete bridges, industrial buildings, dams, viaducts, etc.; good organizer; can produce results; best references; anywhere. P. W. 999, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN; past four years in charge unit methods of construction; also general experience in industrial buildings construction; age 31; unmarried; will go anywhere. P. W. 28, Eng. News, Chicago.

EXPERIENCED MAN (29) wants employment; urgent; chainman, rodman, timekeeper, stock clerk, night watchman, laborer or clerical work. G. L. M., 10 Pratt Ave., Mt. Vernon, N. Y.

POSITIONS OPEN

LETTERER using Reinhart system on engineering drawings and maps; neat work essential; preferably one experienced in preparing work for reproduction; state age, salary, experience, etc., and submit sample if possible. P. 1, Eng. News.

A MAN to fill the position of estimator in general contracting work and building construction, in country, 50 miles from New York; must have thorough knowledge of the work and furnish satisfactory references; permanent position for the right man. P. 997, Eng. News.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

EFFICIENCY SOCIETY OF AMERICA, Pittsburgh, Penn., begs to announce to employers that the membership maintains a free employment exchange, technical and commercial lines. Inquiries invited. Not an agency.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

EXPERIENCED FOREMAN seeks position on construction work; will furnish all necessary labor; best reference. L. B. 12, Eng. News.

WANTED

AGENTS AND SALESMEN

ENGINEERING REPRESENTATIVES—Agents with offices in all parts of the United States to represent the Thomas Method of reinforced concrete bridge construction. W. M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

YOUNG MAN with large engineering experience wishes to represent reliable manufactures of building or mining products in the State of Colorado. Address B. S. Heyer, 1220 North Custer St., Colorado Springs, Colo.

MISCELLANEOUS

CHARTS FOR REINFORCED-CONCRETE BEAM DESIGN according to report of Joint Committee (Nov. 20, 1912). Rational and economical. Price, 40 cents. C. Siquot, 6 East German St., Baltimore, Md.

BOOKS

PROCEEDINGS OF THE NATIONAL CONFERENCE ON CONCRETE ROAD BUILDING, a 210-page volume (6x9 in.), being a digest of present knowledge and best practice represented by the reports and discussions of the country's leading highway engineers. The remaining copies will be sold for 50c. each, postage prepaid. Address Secretary, National Conference on Concrete Road Building, 208 South LaSalle St., Chicago.

BUSINESS OPPORTUNITIES

ENGINEER'S GRAND OPPORTUNITY—Long-established young contractor with unquestionable reputation and expert knowledge in the economical construction of public and private work and with exceptional ability in securing and executing profitable contracts desires to meet young graduate civil engineer who is willing to learn the contracting and construction line and take an active interest with an investment of from $15,000 to $25,000. B. O. 872, Eng. News.

LONG ESTABLISHED ENGINEERING BUSINESS—General engineering business established more than 35 years, in a city of 13,000; has instruments and field notes and old plans continuous since established; also large collection of field notes and plans for more than 100 years. B. O. 2, Eng. News.

Classified List

Second Hand Machinery, Material and Equipment

For Sale—Exchange—Rent—Wanted

Items not otherwise marked list equipment for sale.

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

N

ADDRESSES

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CARPENTER & Boxley & Herrick, Inc., 4th Ave. and 70th St., B'klyn, N. Y.
CONCORD CO., 117 Main St., Flemington, N. J. (Tel. 81 L.).
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition.—THEO. SMITH & SONS CO., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

BAILING PRESS

1 Dederick continuous bailing press.—CONCORD.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

BONE MILL

3' Denmead bone mill with screen elevators.—CONCORD.

BRIDGES

Revolving bridge 137' long, 21' wide, plank flooring, hand rails, hand power, located at New York City; can be inspected before removal.—PIPE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed. —GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

CARS

[Standard Gauge]

45—80,000 lb. flat cars, cheap.—WHITNEY.

[36" Gauge]

100 Western 4-yd. dump and 26 Koppel steel concrete.—CARPENTER.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

10—1 yd. swivel end dump cars.—PIPE.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

[Wanted]

36x18 or 24 Farrell Jaw.—SCHMIDT.

DERRICKS

1 Steel stiff leg, 70' boom; 1 steel guy, 70' boom, 25 tons cap.; 1 steel traveling, 45' boom.—GIVIN.

5 traveling, 50 HP. Lambert elec. hoists.—CARPENTER.

15' traveling derrick.—CONCORD.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

DRILLS

6 Ingersoll, type F-24, and 2 class "C" Little Giant rock drills.—BECKWITH.

Keystone traction No. 3 with placer equipment located at Prescott, Ariz.—L. J. HOHL, 525 Market St., San Francisco, Calif.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

ENGINES, STEAM

75-H.P. Diesel, cyl. 14x24, excellent condition.—CONCORD.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

FROGS & SWITCHES

11 split switches, 10 stiff keyed frogs, 15 low century switch stands, 18-15 ft. guard rails.—CONCORD.

GENERATORS

C. & C. 50-K.W. belted type generator, 650 revolutions, 230 volts, LaRoche Switchboard.—CONCORD.

HAMMERS

1 No. 4 Arnott.—PIPE.

HEATERS, FEED WATER

2 Blake 150 H.P. vertical water feed heaters.—CONCORD

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33" diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

INSTRUMENTS, SURVEYING

Gurley with tripod, price $75.00—Room 1603, 15 William St., New York, N. Y.

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$175 K & E No. 5025 Precision 3 screw Y level, new, $133; $220 K & E 5040 Fine Tr., good working order, $125.—Guaranteed. 99 others. Rentals, repairs, supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

For Sale at a Bargain—High-grade, very accurate engineer's three leveling screw transit, also wye level made by Otto Fennel Söhne. For full description and price address Mrs. Sewall Truax, Highland Park, Ill.

K & E Y level 18", cost $140, used only a short time. No tripod $65; with new tripod $10 extra.—F. S. 13, Eng. News.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS.

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

5—11x16 Vulcan dinkies 1936 to 2039.—CARPENTER.

3—9x14 Porter dinkies 3146 to 3589.—CARPENTER.

A number of 9x14 and 10x16.—SCHMIDT.

[24" Gauge]

1—7x12 Vulcan, 3 months old.—SCHMIDT.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

Browning, 8-wheel, equipped with air brake, 46' boom.—The JENNISON-WRIGHT CO., 313 Huron St., Toledo, Ohio.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE.

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka with 3 H.P. D.C. motor, continuous; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

PILING, SHEET STEEL

165 pcs. Lackawanna 14" arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

5000 pcs. Lackawanna, Carnegie, Jones & Laughlin, various widths and lengths. Send your inquiries.—GRIMSHAW.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

1 No. 8, 1 No. 9, 1 No. 10 Cameron.—MARINE.

2 Davidson Simplex 9x9x11.—MARINE.

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE.

1 No. 486 Emerson, 4" suc., 3" dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

Stilwell-Bierce pump, 7x4½x10, and 2 Deane Steam pumps, one No. 43,213, size 6x5¾x6, and one, 1½x2¾x4.—CONCORD.

1—One million gallon, vertical, compound McGowan; only in operation about three years; reason for selling, installation of new equipment. Pump in good condition. Price and full description will be given by S. R. BLAKEMAN, Supt. of City Water & Light Dept., Dyersburg, Tenn.

RAILS

500 tons first-class 56 and 60 lb. rail.—CARPENTER.

40 ton of 35 lb. with fish plates.—PIPE.

100 tons 85 lb. steel rails, A. S. C. E., Sec. No. 235, with joints. Hunt's report on request.—CONCORD.

ROAD ROLLERS

10-ton Russell, 3 wheel; overhauled, $1100.—GRIMSHAW.

Tandem roller in first-class condition at a bargain.—Write F. S. 967, Eng. News.

[Wanted]

10-ton macadam roller. Send description and price to W 968, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

One—⅝ yd. Marion-Osgood. Traction.—SCHMIDT.

1 Bucyrus 14 B, new last August.—SCHMIDT.

1 Marion Model 60, 1439 with 1 standard and 1 special boom, and 1 Model 75, 2112.—CARPENTER.

⅝ yd. Thew No. O, traction wheels; first-class, $2250.—GRIMSHAW.

TANKS

3000-gal. oil tank, 20 ft. 4 in., 8 ft. diam.—CONCORD.

TRAVELING CRANES

1 15-ton electric 36' 6" span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

Maris Bros. 10-ton air crane, 72' 5" span.—CONCORD.

WHEELS, CAR

72 pairs 33-in. std. gage car wheels on axles.—CONCORD.

FOR SALE

Air Reheaters
Blowers and Fans
Buckets
Cars
Car Tipple
Rock Drills
Elevators
Tripods
Drill Columns
Electric Locomotives
Grout Machines
Man Locks
Pile Hammer
Pumps
Saw
Steel Pontoon
Spiral Pipe
Wrought Iron Pipe
Drill Steels

Apply to

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.

CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York.
Cable Address, Pawnee Havana.

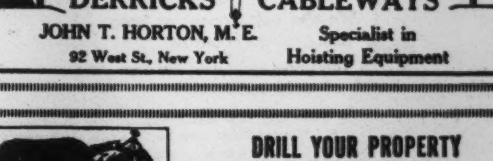
Western Union & Lieber Codes Used.
Havana Office, Zulueta 36 D.

THE SNARE AND TRIEST COMPANY
Woolworth Building, 233 Broadway New York

Plant and Equipment for Sale

Including locomotives, gondolas, derricks, concrete mixers, rock drills, buckets, pumps, engines, elevators and conveyors. *Ask for new list with revised prices.*

ALABAMA POWER COMPANY,
Birmingham, Ala.



DERRICKS CABLEWAYS

JOHN T. HORTON, M. E.
92 West St., New York

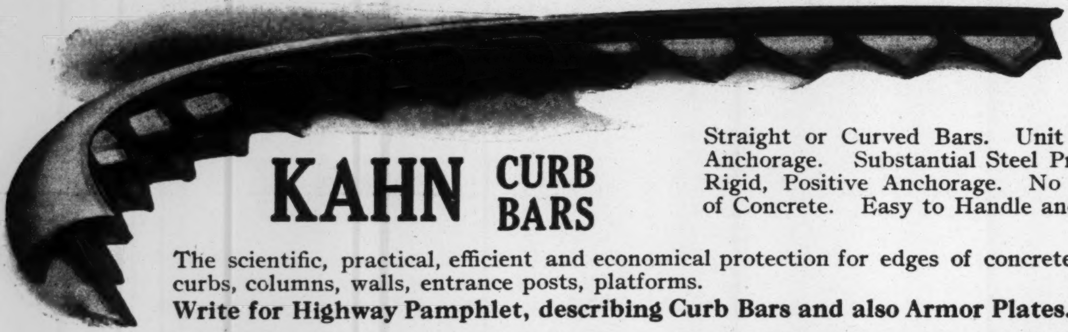
Specialist in
Hoisting Equipment

DRILL YOUR PROPERTY

Get a CORE and find out thickness and quality of vein. Saves money in the end.

THE J. A. BRENNAN DRILLING CO.
Pittsburgh, Pa.

Contractors for diamond drilling. We make a specialty of prospecting soft coal and cement properties.



KAHN CURB BARS

Straight or Curved Bars. Unit of Plate Anchorage. Substantial Steel Protection. Rigid, Positive Anchorage. No Splitting of Concrete. Easy to Handle and Install.

The scientific, practical, efficient and economical protection for edges of concrete curbs, columns, walls, entrance posts, platforms.

Write for Highway Pamphlet, describing Curb Bars and also Armor Plates.

KAHN Building Products

Trussed Concrete Steel Co. Dept. C-12 **Youngstown, Ohio**

Economy of Operation and Upkeep Feature

WESTERN AIR DUMP CARS

WESTERN STEEL AIR DUMP CAR

A third of a century's experience spent in building efficient earth-handling machinery stands back of this statement—proved by hundreds of contractors the country over. If you are looking for lower haulage costs on your next material handling job, let us submit cost figures on some Western Dump Car jobs before you buy.

Details for the asking. Get the catalog.

Western Wheeled Scraper Company
Aurora, Ill.

WE WILL RENT YOU WHAT YOU NEED IN CONTRACTORS' EQUIPMENT

We Carry Only High-Grade Serviceable Machinery IN GOOD CONDITION

Our equipment is regularly repaired at our own shops and we guarantee its mechanical condition. You can depend on it for any work you have in contemplation, big or little.

We also sell outright or lease with privilege of buying

Our prices are low for the class of equipment we offer.

Write US Stating Your Requirements

UNITED STATES EQUIPMENT CO.
208 South La Salle St., Chicago, Ill.

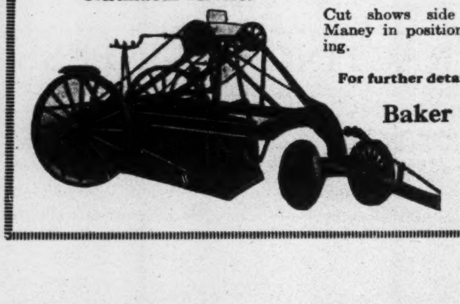
Second Hand Blue Printing Machines

All styles: continuous and vertical. Taken out of active service in part payment for Pease Peerless Equipment. Overhauled in our own factory and put in perfect condition. If you wish to secure a bargain, write for Stock List No. 1 E-N.

The C. F. Pease Company
166 W. Adams Street, Chicago

The Maney 4-Wheel Scraper Digs—Carries—Dumps—*For Less*

Combines the functions of the wheeled scraper and dump-wagon. Operated by one man—no wheeler, holders or dump men required. Built for long continuous service.



Cut shows side view of Maney in position for loading.

For further details, write.

Baker Mfg. Co.
558 Stanford Ave.,
Springfield, Ohio

Contracts to Be Let

Bids received until Mar. 31, 1915.

Buttzville-Danville Road

Belvidere, Warren County, N. J.

Sealed proposals for the construction of a waterbound macadam road 5.755 miles long, known as the Buttzville-Danville Road, will be received by a Committee of the Board of Chosen Freeholders at the Courthouse in Belvidere, Warren County, New Jersey, on Wednesday, March 31, 1915, at 11:30 A.M.

Plans and specifications are on file and blank proposals may be obtained at the State Road Commissioner's office, Trenton, N. J., at the Danville Hotel, Danville, N. J., and at the Buttzville Hotel, Buttzville, N. J., also at the office of F. W. Salmon, County Engineer, Netcong, N. J.

Samples of approved materials are on file with the State Road Department and with the County Engineer and will be shown and explained to prospective bidders on request.

Plans and specifications may be purchased from the County Engineer upon payment of $5.00, which will not be refunded.

The right is reserved to reject any or all bids.

J. R. THATCHER, Director,
Board of Freeholders.

⁂

Bids received until Apr. 5, 1915.

Street Paving

Cumberland, Md.

SEALED proposals addressed to the Mayor and City Council of Cumberland, Md., will be received at the Office of the City Clerk, City Hall, endorsed "Proposals for Grading, Curbing, Paving and otherwise Improving Streets, under Cumberland City Paving Bonds," on or before 9:30 A.M. Monday, April 5th, 1915.

There are sixteen (16) Streets to be paved with Brick on Concrete Base, approximately there will be 57,000 square yards, requiring about two and a half million bricks.

BIDS may be made for the whole number of Streets, or for each street separately, to suit Bidders.

Plans and Specifications can be procured at the Office of the City Engineer, for which $1.00 per street will be charged, to be refunded on return of Plans in good order. A certified check for $50.00 must accompany Bid on each Street, to be returned after award of successful Bidder is announced.

Bids must be in the hands of the City Clerk, at the City Hall, Cumberland, Maryland, not later than 9:30 A.M., April 5th, at such time and place said Bids will be opened.

The Mayor and City Council of Cumberland reserve the right to reject any and all bids.

JAMES P. GAFFNEY, City Engineer.

⁂

Bids received until Apr. 6, 1915.

Paving

Auburn, N. Y.

Sealed proposals will be received by Hon. Charles W. Brister, Mayor, up to 8 o'clock P.M., April 6, 1915, for the paving of Franklin street, Chapel street and Avenue A. The approximate quantities are as follows:

Franklin street, 10,334 sq.yds. of vitrified brick, asphalt or bitulithic; 3,077 cu.yds. excavation; 6,200 lin.ft. concrete curb and gutter; 30 storm water inlets; 860 ft. sewer. Chapel street, 1,943 sq.yds. pavement; 900 cu.yds. excavation; 1,280 lin.ft. curb and gutter; 2 inlets; 30 ft. sewer. Avenue A, 942 sq.yds. pavement; 200 cu.yds. excavation; 427 ft. curb and gutter; 2 inlets; 40 ft. sewer.

Proposals may be submitted on any or all improvements. A certified check for $500 on Franklin street, $250 on Chapel street, $100 on Avenue A or a bond equal to 10% of the gross amount of the contract is required with each proposal. Plans and specifications can be obtained from Elbert C. Aldrich, City Engineer, upon payment of $10.00, said sum to be returned upon the return of the plans and specifications. Further information may be obtained of the City Engineer.

J. S. HANLON, City Clerk.

Bids received until Mar. 31, 1915.

Bloomsbury-Still Valley Road

Belvidere, Warren County, N. J.

Sealed proposals for the construction of a waterbound macadam road 2.91 miles long, known as the Bloomsbury-Still Valley Road, will be received by a Committee of the Board of Chosen Freeholders at the Courthouse in Belvidere, Warren County, New Jersey, on Wednesday, March 31, 1915, at 2:00 P.M.

Plans and specifications are on file and blank proposals may be obtained at the State Road Commissioner's office, Trenton, N. J., at the Bloomsbury Hotel, Bloomsbury, N. J., and at the Union Square Hotel, Phillipsburg, N. J., also at the office of F. W. Salmon, County Engineer, Netcong, N. J.

Samples of approved materials are on file with the State Road Department and with the County Engineer and will be shown and explained to prospective bidders on request.

Plans and specifications may be purchased from the County Engineer upon payment of $5.00, which will not be refunded.

The right is reserved to reject any or all bids.

J. R. THATCHER, Director,
Board of Freeholders.

⁂

Bids received until Apr. 1, 1915.

Disposal of Garbage

Wilmington, Delaware.

Sealed proposals, accompanied by plans and specifications for the disposal of garbage of the City of Wilmington, Delaware, will be received by the Board of Health, at their office, 6th and King Sts., until 3 p.m. April First, 1915, at which time and place the proposals will be opened and publicly read.

The contract to be let, will be for a term of Nine years, beginning June First, 1915. The amount of garbage to be disposed of, approximates, 14,000 tons, yearly.

Each proposal submitted, must be accompanied by a certified check upon a Bank or Trust Company doing business in the City of Wilmington, Delaware for the sum of Five Hundred Dollars ($500), drawn to the order of the Mayor and Council of Wilmington, Delaware.

General specifications and bidding blanks may be obtained from Mr. J. Austin Ellison, Secretary of the Board of Health after March First, 1915.

The right is reserved to award the contract under that proposal, the acceptance of which will in the judgment of the Board of Health best secure the efficient performance of work and to reject any or all bids.

BOARD OF HEALTH,
J. Austin Ellison, Secretary.

⁂

Bids received until Apr. 5, 1915.

Cement, Stone, Pipe, etc.

CORPORATION OF THE CITY OF WESTMOUNT, QUEBEC.

City Engineer's Department.

Tenders are invited for the following supplies for the year commencing 1st May, 1915:

1—Cement
2—Sand
3—Quarried stone
4—Crushed stone
5—Paving Blocks
6—Sewer Pipes
7—Bricks
8—Farm Tile
9—Coal

Specifications, form of tender and other information can be obtained at the office of the undersigned.

Sealed tenders marked "Tenders for Supplies" will be received by the Secretary-Treasurer up to Twelve Noon, April 5th, 1915.

The City Council reserves the right to reject the lowest or any tender and do not guarantee to grant an exclusive contract to any tenderer.

P. E. JARMAN, City Engineer.

Bids received until Apr. 6, 1915.

Street Improvements

Bayonne, N. J.

SEALED PROPOSALS will be received by the Council of the City of Bayonne, N. J., at a meeting to be held in the City Hall, on Tuesday, April 6th, 1915, at 8 o'clock p.m.,

FOR ALL LABOR AND MATERIAL REQUIRED FOR THE IMPROVEMENT OF THE FOLLOWING STREETS, VIZ.:

(1) Fourteenth Street, from Hudson Boulevard to Avenue A;

(2) Orient Street, from Fifth Street to Evergreen Street;

(3) Twentieth Street, from Hudson Boulevard to Avenue A;

(4) Thirty-eighth Street, from Hudson Boulevard to Avenue C;

(5) Hobart Avenue, from Third Street to Oak Street;

(6) Forty-seventh Street, from Broadway to Avenue E;

(7) Fifty-first Street, from Avenue B to Hudson Boulevard;

(8) Fifteenth Street, from Avenue A to Hudson Boulevard;

(9) Fifty-third Street, from Hudson Boulevard to Broadway;

(10) Twelfth Street, from Avenue A to Dummy Road;

(11) Linnet Street, from Orient Avenue to Ingham Avenue;

(12) Fiftieth Street, from Hudson Boulevard to Avenue C;

(13) Lord Avenue, from Fifth Street to Third Street;

(14) Avenue C, from Fifty-fourth Street to Morris Canal;

(15) Forty-first Street, from Avenue B to Avenue C;

(16) George Street, from Lexington Avenue to Hobart Avenue;

(17) Avenue A, from North Street to Thirty-first Street, with sheet asphalt, in accordance with plans and specifications on file.

Separate bids will be received for each street.

There will be required about 93,900 square yards asphalt paving on concrete, 35,000 lin. feet new bluestone curb, 6,500 lin. feet old curb reset, 9,500 square feet new concrete flag, 60,300 square feet flag reset, 100 square yards Belgian block pavement relaid, 63,800 square feet new bluestone flag, 2,300 lin. feet new concrete curb, 1,930 lin. feet new concrete curb and gutter, 43,200 cubic yards excavation, together with other appurtenances.

All bids must be on the regular forms provided for the purpose, and submitted in sealed envelopes plainly endorsed with the name of the bidder and the title of the improvement.

Checks submitted in lieu of bond must be certified, or the bid will be rejected.

Plans and specifications for the work are on file in the office of the City Surveyor, where blank forms of proposals or any other information may be obtained.

The amount of bond required and the time allowed for the completion of the work shall be as provided in the specifications.

Bids will be received subject to the filing of remonstrances against any of said improvements as provided by law, and the Council reserves the right to reject any and all bids.

By order of the Council.

WM. P. LEE, City Clerk.

⁂

Bids received until Apr. 6, 1915.

Electric Light Improvements

Kinston, N. C.

Sealed Proposals will be received until 5 P.M. of April 6, 1915, by the Mayor and City Council of Kinston, N. C., for Electric Light Plant Improvements.

New equipment includes 300 K.W. engine type generators, two belted generators, switchboard, 450 H.P. four-valve engine, condenser, centrifugal pump and motor, return tubular boilers. Bids on alternates to the above will be considered.

Building construction consists of extension to existing structures, station for centrifugal pumps, and about 1000 feet of terra cotta and cast-iron pipe line.

Each proposal must be accompanied by a certified check for not less than five per cent. of the amount of the proposal.

All proposals must be upon forms provided by the City.

The right is reserved to reject any or all bids.

Specifications, Proposal Form, and Plans will be on file in the office of the City Clerk at Kinston, N. C., and may be obtained from the office of the Consulting Engineer in Charlotte, N. C., upon application, accompanied by payment of five dollars, which will be refunded when Specifications and Plans are returned in good condition within thirty days after the date of receiving proposals.

FRED I. SUTTON, Mayor.
W. B. COLEMAN, Clerk.

Consulting Engineer:
GILBERT C. WHITE, Charlotte, N. C.

Bids received until Apr. 2, 1915.

Sewage Disposal Works, Pumping Station and Machinery

York, Pa.

Sealed proposals will be received by C. P. Shreiner, City Clerk, at City Hall, York, Pa., until 1:30 P.M., Apr. 2, 1915, for constructing Sewage Disposal Works and Pumping Station under "Contract A" and furnishing and installing machinery under "Contract B."

"Contract A" includes 3 settling tanks with outside measurements of about 83 feet square and 28 feet deep, with appurtenances, and a pumping station building, having concrete sub-structure and brick super-structure 26 feet wide by 58 feet long.

"Contract B" will include the furnishing and installing of all operating machinery including 3 five million gallon, motor driven pumps, 1 ten million gallon, gasoline engine driven pump, and various appurtenances.

Proposals for "Contract A" must be accompanied by a certified check on a National Bank for Twenty-five Hundred ($2,500) Dollars.

Proposals for "Contract B" must be accompanied by a certified check for Five Hundred ($500) Dollars.

The City reserves the right to reject any or all bids.

Plans and specifications may be obtained at the office of George W. Fuller, Consulting Engineer, 170 Broadway, New York, and at the office of the City Engineer, City Hall, York, Pa., upon a deposit of Ten ($10) Dollars, which sum will be refunded if the plans and specifications are returned in good condition within two weeks after bids are received.

Bids must be made on the Blank Form of Proposal bound with the specifications, and in case it is desired to bid on both contracts each bid shall be made in a separate pamphlet.

C. A. BOYER,
Superintendent of Streets & Public Improvements,
City Hall, York, Pa.

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Bids received until Mar. 31, 1915.

Sale of Paving Warrants

Fargo, N. Dak.

Paving Warrants of the City of Fargo for about $140,000.00 will be sold March 31, 1915.

Bids will be received by the Board of Commissioners until 10:30 a.m., March 31, 1915, for the purchase of these warrants. Certified check for $500.00, payable to the City, shall accompany each bid.

Each bidder shall state:

1. The lowest rate of interest at which these warrants will be taken at par.

2. The premium, if any, which will be paid for the warrants if issued with six (6) per cent. interest, payable annually.

3. Separate proposal for purchase of warrants if issued with privilege of prior payment.

This issue of warrants will mature in annual installments extending over a period of fifteen (15) years; will have annexed coupons representing annual interest and will be in denominations of $500 or $1,000, as the City Commission may decide at the time bids are considered.

The warrants will be issued and delivered to the successful bidder June 1st of the current year. Bids may be submitted for a part of this issue of warrants.

A. R. WATKINS, City Auditor.

Dated, March 12, 1915.

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Bids received until Apr. 7, 1915.

Main Intercepting Sewer

Fitchburg, Mass.

Sealed proposals will be received by the Board of Sewage Disposal Commissioners at their office, 745 Main Street, Fitchburg, Mass., until 3 o'clock p.m., Wednesday, April 7, 1915, for the construction of Section 7 of the main intercepting sewer covering a distance of about 3400 feet. Plans and specifications may be obtained at the office of the Commission upon the deposit of $5.00. The right is reserved to reject any and all bids, or to accept any bid should the Commissioners deem it for the interest of the city so to do.

ARTHUR H. LOWE,
DAVID M. DILLON,
DANIEL A. BOYLE,
Sewage Disposal Commissioners.

DAVID A. HARTWELL,
Chief Engineer.

Bids received until Apr. 6, 1915.

Reimproving Streets

Bayonne, N. J.

SEALED PROPOSALS will be received by the Council of the City of Bayonne, N. J., at a meeting to be held in the City Hall, on

TUESDAY, APRIL 6, 1915,
at 8 o'clock P.M.,

for all labor and material required for the reimprovement of the following streets: Sixteenth Street, between Broadway and Hudson Boulevard; Thirty-second Street, between Avenue A and Avenue E, with sheet asphalt, all under one contract.

There will be required about 14,900 square yards asphalt paving, 7,800 lin. feet old curb realigned and redressed, 150 lin. feet new curb, set in concrete; 150 lin. feet curb reset in concrete, 500 cubic yards broken stone, together with other appurtenances.

All bids must be on regular forms provided for the purpose, and submitted in sealed envelopes, plainly endorsed with the name of the bidder and the title of the improvement.

Checks submitted in lieu of bond must be certified, or the bid will be rejected.

Plans and specifications for the work are on file in the office of the City Surveyor, where blank forms of proposals or any other information may be obtained.

The amount of bond required is $10,000.

The time allowed for the completion of the work is sixty (60) days.

The Council reserves the right to reject any or all bids.

By order of the Council.

WM. P. LEE, City Clerk.

⁂

Bids received until Apr. 6, 1915.

Reimprovement of Streets

Bayonne, N. J.

SEALED PROPOSALS will be received by the Council of the City of Bayonne, N. J., at a meeting to be held at the City Hall, on

TUESDAY, APRIL 6, 1915,
at 8 o'clock P.M.,

for all labor and material required for the reimprovement of the following streets: 5th Street, from Avenue A to Broadway; 8th Street, from Avenue A to Broadway, and Humphreys Avenue, from 5th Street to 7th Street, with bituminous concrete, all under one contract.

There will be required 17,800 square yards bituminous concrete, 10,600 lin. feet old curb realigned and redressed, 700 lin. feet new curb set in concrete, 900 cubic yards broken stone, together with other appurtenances.

All bids must be on the regular forms provided for the purpose and submitted in sealed envelopes plainly endorsed with the name of the bidder and the title of the improvement.

Checks submitted in lieu of bond must be certified, or the bid will be rejected.

Plans and specifications for the work are on file in the office of the City Surveyor, where blank forms of proposals or any other information may be obtained.

The amount of bond required is $13,000.00.

The time allowed for the completion of the work is seventy (70) days.

The Council reserves the right to reject any or all bids.

By order of the Council.

WM. P. LEE, City Clerk.

⁂

Bids received until Apr. 12, 1915.

Reinforced Concrete Arches

Camden, N. J.

Separate sealed proposals are invited for constructing two reinforced concrete arches on Kings Highway for Camden County.

Plans and specifications are filed with the Engineering News, New York City; also with Fred. W. George, Clerk, Board Chosen Freeholders, Court House, Camden, N. J., who will mail a set to any address on receipt of $1.00 for each culvert. Bids will be received at Court House, Camden, immediately opened and publicly read on Monday, April 12th, at 11 A.M. Each bid must be accompanied by a certified check or cash in the sum of $1000.

FRED. W. GERCKE, Chairman Bridge Comm.
J. J. ALBERTSON, Co. Eng'r.
March 12, 1915.

Bids received until Apr. 6, 1915.

Repaving Streets

Bayonne, N. J.

SEALED PROPOSALS will be received by the Council of the City of Bayonne, N. J., at a meeting to be held in the City Hall, on

TUESDAY, APRIL 6, 1915,
at 8 o'clock P.M.,

for all labor and material required for the repaving with asphalt pavement, laid on old macadam foundation, the following streets: Thirty-fourth Street, from Avenue E to Avenue A; Thirty-sixth Street, from Broadway to Hudson Boulevard; Fifty-fourth Street, from Broadway to Hudson Boulevard, all under one contract.

There will be required about 20,980 square yards asphalt paving (wearing surface and binder); 11,460 lin. feet old curb realigned and redressed; 175 lin. feet new curb set in concrete; 600 cubic yards broken stone, together with other appurtenances.

All bids must be on the regular forms provided for the purpose, and submitted in sealed envelopes, plainly endorsed with the name of the bidder and the title of the improvement.

Checks submitted in lieu of bond must be certified, or the bid will be rejected.

Plans and specifications for the work are on file in the office of the City Surveyor, where blank forms of proposals or any other information may be obtained.

The amount of bond required is $13,000.

The time allowed for the completion of the work is ninety (90) days.

The Council reserves the right to reject any or all bids.

By order of the Council.

WM. P. LEE, City Clerk.

⁂

Bids received until Apr. 14, 1915.

Highway Improvements

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at one o'clock p.m., Wednesday, April 14, 1915, for the improvement of Highways in the following counties:

Albany (approx. length, 2.80); Allegany (approx. length, 6.71); Essex (approx. length, 5.34); Franklin, 3 highways (5.50, 4.91, 11.41); Monroe, 2 highways (2.14, 1.87); Oneida (approx. length, 6.65); Oswego, 3 highways (5.41, 5.22, 3.66); St. Lawrence (approx. length, 6.66); Wyoming (approx. length, 3.88).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

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Bids received until Apr. 12, 1915.

Notice for Bridge Bids

Columbus, Mont.

Board of County Commissioners of the county of Stillwater, Montana, will receive bids for bridges on or before 10:00 o'clock A.M. of April 12th, 1915, at which time bids will be opened.

Bids to be on the following bridges:

No.	Where	Length of Bridge, feet
9	Skew Bridge, Shane Creek..................	22
11	Butcher Creek, at Campbell place............	30
12	East Rosebud, 5 miles above L. C. Piper......	60
13	West Rosebud, above Fishtail................	55
14	Absarokee, Rosebud River, riveted span.......	95

The board reserves the right to reject any or all bids. All bids must be addressed to Lloyd B. Barley, County Clerk, Columbus, Mont., inclosing certified check of 5 per cent. of bid.

For further particulars, specifications and plans for these bridges, write or call on R. W. BARR, County Surveyor.

By order of Board of County Commissioners.

B. F. HARRIS, Chairman,
By Lloyd B. Barley, County Clerk.

Dated this 6th day of March, 1915.

Bids received until Apr. 21, 1915.

Water Works Improvements

Durham, N. C.

Sealed Proposals will be received by the Mayor and Board of Aldermen of the City of Durham, N. C., at the City Hall, until 3 P.M. April 21st, 1915, for "Water Works Improvements," consisting of:

River Pumping Station, City Pumping Station, Filter House and Concrete Clear Water Well, Coagulating Basin, Filter Equipment for four units of ¾ million gallons each, Laying nine miles 20-inch cast iron pipe, Two Radial Brick Chimneys.

Proposals must be marked "Proposal for Water Works Improvements."

All proposals must be upon blank forms provided in Proposal and Contract.

Each proposal must be accompanied by a certified check for not less than five per cent. of the amount of the bid, as an evidence of good faith.

Specifications, Proposal and Contract forms and plans will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by the payment of twenty-five dollars to insure their return in good condition within thirty days after the date set for receiving proposals.

The right is reserved to reject any or all proposals.

W. J. BROGDEN, Mayor.
GEO. W. WOODWARD, Clerk.

Engineer—
GILBERT C. WHITE, Charlotte, N. C.

⁂

Bids received until Apr. 21, 1915.

Pumping Station Equipment

Durham, N. C.

Sealed Proposals will be received by the Mayor and Board of Aldermen of the City of Durham, N. C., at the City Hall, until 3 P.M. April 21st, 1915, for "Pumping Station Equipment" consisting of three-million gallon Crank and Flywheel Pumping Engines, Turbine driven Centrifugal Pumps, Feed Pumps, Open Feed Water Heaters, 5 K.W. and 7½ K.W. D.C. Electric Lighting Units, Manning Boilers.

Proposals must be marked "Proposal for Pumping Station Equipment."

All proposals must be upon blank forms provided in Proposal and Contract.

Each proposal must be accompanied by a certified check for not less than five per cent. of the amount of the bid, as an evidence of good faith.

Specifications, Contract and Proposal forms will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by payment of Ten Dollars to insure their return in good condition within thirty days after the date of receiving proposals.

The right is reserved to reject any or all proposals or to consider proposals on alternate equipment.

W. J. BROGDEN, Mayor,
GEO. W. WOODWARD, Clerk.

Engineer—
GILBERT C. WHITE, Charlotte, N. C.

⁂

Bids received until Apr. 13, 1915.

Highways

SEALED BIDS will be received by the Board of Water Supply, at its offices, twenty-second floor, Municipal Building, Park Row, Centre and Chambers Streets, New York City, until 11 A.M., on Tuesday, April 13, 1915, for Contract 152, for surfacing with vitrified brick blocks and macadam about 5 miles of highways and constructing about 8 miles of guard walls, at the Ashokan reservoir, in the towns of Olive, Marbletown and Hurley, Ulster county, New York. The grading for these highways has been largely done under other contracts.

At the above place and time the bids will be publicly opened and read. Pamphlets containing information for bidders, and contract drawings can be obtained at the above address, at the office of the Secretary, by depositing the sum of ten dollars ($10) in cash or its equivalent for each pamphlet. For further particulars apply to the office of the Principal Assistant Engineer at the above address.

CHARLES STRAUSS, President,
CHARLES N. CHADWICK,
JOHN F. GALVIN,
Commissioners of the Board of Water Supply.
W. BRUCE COBB, Secretary.

Bids received until Apr. 14, 1915.

Water Works

Barker, N. Y.

Sealed proposals will be received by the Board of Trustees of the Village of Barker, N. Y., until 12 o'clock noon, on the 14th day of April, 1915, for the construction of about four and one-half miles of cast iron mains, stand pipe, sand filter and pure water reservoir, pump house, pumping apparatus and other accessories.

Bids will be received for the whole work, or for all except the stand pipe or pumps which may be bid for separately.

Plans may be seen and specifications obtained at the office of the Board at Barker, or at the office of Charles C. Hopkins, Engineer, 349 Cutler Building, Rochester, N. Y.

The Board reserves and has the right to accept or reject any proposal, to contract with other than the lowest bidder, or to reject any or all proposals and advertise again, as in its best judgment may be for the best interests of the Village.

Bonds satisfactory to the Board in amount and sureties will be required of those to whom contracts may be awarded. Surety company bonds are preferred.

A certified check, made payable to the order of the Treasurer of the Village of Barker, N. Y., to the amount of $1,000, must be deposited by the bidder for the general contract and accompany his bid as a guarantee that in case the contract is awarded him, he will, within seven days after notification of award, execute the contract. Bidders for the stand pipe or for the pumping apparatus shall each deposit a certified check to the amount of $300 as a similar guarantee.

Bids must be sealed and addressed to W. J. Taylor, Village Clerk, Barker, N. Y., and marked on the outside of the enclosing envelope, "Proposal for Barker Water Works."

GEORGE E. LANDY,
J. E. MORGAN,
J. A. DUTCHER,
F. W. McADAM,
G. C. NELLIST,
Trustees.

Dated Mar. 23, 1915.

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Bids received until Apr. 12, 1915.

Barn and Vegetable Cellar

Bath, N. Y.

Sealed proposals for construction of Barn and Vegetable Cellar for the New York State Soldiers' and Sailors' Home, Bath, N. Y., will be received by Hon. Joseph A. Goulden, President, Board of Managers, New York State Soldiers' and Sailors' Home, Bath, N. Y., until 11 o'clock A.M. on April 12, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of $300.00 for the Barn and $100.00 for the Vegetable Cellar. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. (50%) of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specification No. 2230. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Soldiers' and Sailors' Home, Bath, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York for each set of plans and specifications, which check will be returned when plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

WM. H. NICHOLS, Secretary.

Dated
Bath, N. Y., March 23, 1915.

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U. S. ENGINEER OFFICE, Pittsburgh, Pa., March 4, 1915. —Sealed proposals for furnishing and delivering steel maneuver-boat hulls, steamboat and hand capstans, derricks, kevels, spuds, etc., for Dams Nos. 10, 12, 15, 19, 20 and 29, and engines and electric light plants, etc., for maneuver boats at Dams Nos. 10 and 29, Ohio River, will be received at this office until 12 M. (Eastern Standard Time), April 3, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

Bids received until Apr. 6, 1915.

Pumping Station and Pump

Lynchburg, Va.

Sealed proposals for the Installation of an Emergency Pumping Station and Booster Pump, addressed to the Council Committee on Water, and suitably endorsed, will be received by the Council Committee on Water, at Lynchburg, Va., until 12 noon, of Tuesday, the 6th day of April, 1915, and on that day in the Committee Room, Krise Building, the bids will be publicly opened and read.

Each bid must be accompanied by a certified check for five per cent. (5%) of the amount bid, made payable to Y. P. Marshall, Chairman of the Water Committee. This check will be returned to the bidder unless he fails to execute the contract should it be awarded to him.

A bond for twenty-five per cent. (25%) of the contract price will be required for the faithful performance of the contract, the sureties to be a substantial Surety Company satisfactory to the Water Committee, and authorized by law to do business in the State of Virginia. No personal surety will be accepted.

The Items of work to be done are as follows:

Division No. 1—Two brick buildings.
Division No. 2—Three centrifugal pumps.
Division No. 3—Transformers, motors, and other electrical equipment.
Division No. 4—Cast iron pipe, valves, etc.
Division No. 5—Liquid chlorine apparatus.

The Water Committee reserves the right to reject any or all bids should they deem it to be for the interest of the City of Lynchburg to do so.

H. L. SHANER, City Engineer.

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Bids received until Apr. 13, 1915.

Building Construction, etc.

Industry, N. Y.

Sealed proposals for alterations and additions to Hospital Building, construction; heating; plumbing and drainage and electric work at the New York State Agricultural and Industrial School, Industry, N. Y., will be received by Mrs. Warham Whitney, President of the Board of Managers of the State Agricultural and Industrial School, Industry, N. Y., until 12 o'clock noon, April 13, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of $250.00 for construction work; in the sum of $60.00 for heating work; in the sum of $50.00 for plumbing and drainage and in the sum of $25.00 for electrical work. Contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specifications Nos. 2116, 2196, 2176 and 2177. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the State Agricultural and Industrial School, Industry, N. Y.; at the New York office of the Department of Agriculture, Room 1224, Woolworth Building, and at the Department of Agriculture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York, for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

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PROPOSALS FOR MANILA BOLT ROPE—**Mississippi River Commission, First and Second Districts, Custom House, Memphis, Tennessee, March 20, 1915.—Sealed proposals for furnishing and delivering 62,200 lbs. pure manila bolt rope, will be received at this office until 11 a.m., April 10, 1915, and then publicly opened. Information furnished on application. E. M. MARKHAM, Maj., Engrs.**

PROPOSALS FOR WIRE, WIRE STRAND, STAPLES AND CLIPS.—**Mississippi River Commission, First and Second Districts, Custom House, Memphis, Tennessee, March 20, 1915.—Sealed proposals for furnishing and delivering about 725,000 lbs. galvanized wire, silicon bronze wire, wire strand, and staples, and 36,000 wire rope clips, will be received at this office until 12 m., April 10, 1915, and then publicly opened. Information furnished on application. E. M. MARKHAM, Maj., Engrs.**

Bids received until Mar. 30, 1915.

Tenders for Supplies

DEPARTMENT OF WORKS.

Toronto, March 17th, 1915.

Tenders will be received by registered post only, addressed to the **Chairman** of the Board of Control, City Hall, Toronto, Canada, **up to noon on** Tuesday, March 30th, 1915,

For the supply of

Tender No. 39. Sweeper Body and Equipment for Toronto Civic Ry., St. Clair Ave. Division.
40. Equipment for Machine Shop, for Toronto Civic Ry., Danforth Ave. Car Barn.
41. Mechanical and Electrical Equipment for Car Bodies, for Toronto Civic Ry., Lansdowne Ave. Extension.
42. Four Car Bodies, for Toronto Civic Ry., Lansdowne Ave. Extension.
43. Coal, for Water Supply Section.

Specifications and Tender Form for the foregoing may be obtained upon application at Room 12, Purchasing and Accounting Section of the Department of Works, City Hall, Toronto.

Envelopes containing tenders must be plainly marked on the outside as to contents.

The usual conditions relating to tendering as prescribed by City By-law, must be strictly complied with, or the tenders may be declared informal.

Tenderers shall submit with their tenders the names of two personal sureties, approved by the City Treasurer, or in lieu thereof, the bond of a guarantee company, approved as aforesaid.

The lowest or any tender not necessarily accepted.

T. L. CHURCH (Mayor),
Chairman, Board of Control.

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Bids received until May 5, 1915.

Steam Turbine Driven Centrifugal Pump

Kansas City, Mo.

SEALED PROPOSALS will be received by the Purchasing Agent of Kansas City, Missouri, at the office of the Purchasing Agent, Second Floor, City Hall, until two o'clock p.m. of Wednesday, May 5th, 1915, for the designing, construction, delivery and erection of a steam turbine, reduction gear, centrifugal pumping unit of a capacity to pump continuously twenty (20) million U. S. gallons of water per twenty-four (24) hours, against a total combined head of three hundred and sixty (360) feet and steam pressure of one hundred and sixty-five (165) pounds per square inch at throttle; together with all machinery, tools and appurtenances necessary; all in accordance with the plans and general specifications on file in the office of the Chief Engineer of the Water Department.

Each bidder shall deposit with the City Comptroller a certified check in the amount of Seven Hundred and Fifty Dollars ($750.00), payable to the City Comptroller of Kansas City, Missouri, and accompany his bid with the Comptroller's receipt therefor.

The certified check referred to in the Advertisement shall be submitted by each bidder as a guaranty that the bidder will, within ten (10) days after receiving the award of a contract, file with the City a satisfactory bond to the amount of Twenty-five Thousand Dollars ($25,000.00) and will execute the contract.

The Board of Fire and Water Commissioners does not bind itself to accept the lowest or any bid offered, and reserves the right to reject any and all bids and to waive any informality when it seems to be to the interest of Kansas City, Missouri, to do so.

J. P. LANGAN, Purchasing Agent.
BURTON LOWTHER, Chief Engineer.

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U. S. ENGINEER OFFICE, **Louisville, Ky., March 19, 1915.—Sealed proposals for furnishing and delivering American Portland Cement for Dam 43, Ohio River, will be received here until 12 noon, central time, April 19, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.**

TREASURY DEPARTMENT, **Supervising Architect's Office, Washington, D. C., March 17, 1915.—SEALED PROPOSALS will be opened in this office at 3 p.m., April 29, 1915, for making betterments in the U. S. Post Office and Court House at Pensacola, Florida. Drawings and specifications may be obtained from the Custodian at Pensacola, Fla., or at this office. O. WENDEROTH, Supervising Architect.**

U. S. ENGINEER OFFICE, Nashville, Tenn., March 13, 1915. —Sealed proposals for construction and erection of steel gates for Locks B and C, Cumberland River, will be received at this office until 11 a.m., April 12, 1915, and then publicly opened. Information on application. H. BURGESS, Major, Engineers.

FORT MONROE, Va., Mar. 17, 1915.—Sealed proposals will be received here until 12 M., Apr. 15, 1915, for furnishing material and labor required in Constructing Alterations of Casemates and Addition to Quartermaster Stables, including Plumbing and Electric Lighting. Information furnished on application to QUARTERMASTER.

U. S. ENGINEER OFFICE, Pittsburgh, Pa., March 6, 1915. —Sealed proposals for building a fire-proof power-house; furnishing and installing one 115-H.P. boiler, one 15-H.P. boiler, one steam-driven air compressor and two air receivers, piping and accessories, and furnishing one feed water heater, one feed water pump and one service water pump at Dam No. 10, Ohio River, will be received at this office until 12 M. (Eastern Standard time), April 5, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

U. S. ENGINEER OFFICE, 540 Federal Building, Buffalo, N. Y., March 16, 1915.—Sealed proposals for dredging in Niagara River, N. Y., will be received at this office until 11 a.m., April 15, 1915, and then publicly opened. Information on application. J. G. WARREN, Col., Engrs.

U. S. ENGINEER OFFICE, Chicago, Ill., Feb. 27, 1915.—Sealed proposals for dredging in Indiana Harbor, Ind., will be received at this office until 10 a.m. March 29, 1915, and then publicly opened. Information on application. W. V. JUDSON, Lt. Col., Engineers.

U. S. ENGINEER OFFICE, Newport, R. I., Feb. 27, 1915.—Sealed proposals for dredging in Providence Harbor, R. I., will be received at the U. S. Engineer sub-office, Federal Building, Providence, R. I., until 12 o'clock noon, Mar. 30, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

U. S. ENGINEER OFFICE, Room 325 Custom House, New Orleans, La., Mar. 13, 1915.—Sealed proposals for furnishing and delivering about 10,000 cubic yards stone at South Pass and Southwest Pass, Mississippi River, will be received at this office until 11 A.M., April 13, 1915, and then publicly opened. Information on application. EDWARD H. SCHULZ, Maj., Engrs.

GOVERNORS ISLAND, N. Y. H., Mar. 15, 1915.—Sealed proposals, in triplicate, for furnishing Forage and Straw (three months' and a year's supply) and FUEL, GASOLINE, MINERAL OIL, BEEF and MUTTON, required in Eastern Department during year commencing July 1, 1915, will be received here until 11 a.m., April 14, 1915. Information furnished on application to Department Quartermaster.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER—Long experience with dredging and contractors' plants; design, construction and maintenance; now engaged. P. W. 983, Eng. News.

MECHANICAL ENGINEER, designer, draftsman, desires position with first class firm. P. W. 18, Eng. News.

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 42, Eng. News.

Civil Engineers

CIVIL ENGINEER, 11 years' varied experience, railroad construction, location and valuation surveys; excellent highway experience; at present in charge of work. P. W. 39, Eng. News, Chicago.

CIVIL ENGINEER, graduate; 12 years' practical experience with consulting engineers and utility companies; waterworks and other utilities; investigations, reports, design, construction, appraisals; references. P. W. 958, Eng. News.

CIVIL ENGINEER; with 12 years' experience on railroad location and construction, sewers, reinforced concrete construction and municipal engineering is open for engagement. Associate Member, American Society of Civil Engineers. P. W. 930, Eng. News, Chicago.

CIVIL ENGINEER; college graduate; Assoc. M. Am. Soc. C. E.; 10 years' experience, design and construction, docks, bridges, roads, canals, surveys. P. W. 21, Eng. News.

CIVIL ENGINEER, 30; eight years' experience in swamp drainage, sewers and general municipal engineering. P. W. 22, Eng. News.

CIVIL ENGINEER, 27, technical graduate, desires change; held responsible positions in irrigation location and construction, railway maintenance, cement and concrete work; now in Government service. P. W. 24, Eng. News.

CIVIL ENGINEER, graduate, 24, single, 2½ years' varied experience desires position on construction work or survey, location immaterial. P. W. 48, Eng. News.

GRADUATE CIVIL ENGINEER; 8 years' general experience, four on construction, railroad and land surveying, concrete, sewers, water lines. P. W. 49, Eng. News.

GRADUATE CIVIL ENGINEER, 12 years' experience in railroads, municipal, hydraulic and frog and switch work, desires position in the East. P. W. 975, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; 6 years' experience factory construction and structural drafting; best references. P. W. 58, Eng. News.

GRADUATE CIVIL ENGINEER; six years' varied experience in design and construction work with engineers and contractors. P. W. 55, Eng. News.

Bridge and Structural

BRIDGE AND STRUCTURAL ENGINEER with long experience holding responsible positions wishes to change location. P. W. 986, Eng. News.

STRUCTURAL ENGINEER, graduate, 10 years' experience designing bridges, industrial plants, water-supply, filtration, hydro-electric power. P. W. 10, Eng. News.

STRUCTURAL ENGINEER, estimator and checker, desires position; 10 years' experience with leading firms in New York; mill and office buildings a specialty. P. W. 3, Eng. News.

STRUCTURAL AND CONCRETE ENGINEER with long experience is open for position; best references. P. W. 5, Eng. News.

EXPERIENCED BRIDGE AND STRUCTURAL engineer, university graduate, wishes engagement in the Pittsburgh district. P. W. 30, Eng. News.

AN A-1 STRUCTURAL MAN; 6 years foreman templet shop, 7 years superintendent small shop, 8 years general foreman shop fabricating 20,000 tons per year; open for engagement; best of references. P. W. 17, Eng. News.

STRUCTURAL ENGINEER; was chief designer, squad boss and checker with leading firms; expert designer and detailer; city buildings, industrial plants, complicated structures, bridges, reinforced concrete design; wants responsible position. P. W. 60, Eng. News.

Surveyors

RAILROAD RODMAN TOPOGRAPHER, just off 10 months' job; wants similar position. P. W. 922, Eng. News.

INSTRUMENTMAN; age, 24; single; 3 years at Mass. Inst. of Tech., and summer surveying camp; 10 months' experience in field and office. P. W. 59, Eng. News.

YOUNG MAN, 23, three years' practical experience chainman, rodman, leveler, desires position. P. W. 44, Eng. News.

INSTRUMENT MAN, eight years' experience; three tropics; go anywhere. P. W. 36, Eng. News.

YOUNG MAN, 20, I. C. S. student, wishes work with surveying party, immaterial mine or surface work; will start at the bottom; reference from last engineer; willing worker; work anywhere. P. W. 40, Eng. News, Chicago.

SURVEYOR AND DRAFTSMAN; special track work, steam and electric, city and interurban construction, municipal improvements. P. W. 45, Eng. News.

Draftsmen

FIRST CLASS STRUCTURAL DRAFTSMAN; 12 years' experience detailing, estimating, checking, squadman; all lines work; best reference; desires position. P. W. 56, Eng. News.

Superintendents, Etc.

ENGINEER-SUPERINTENDENT, broad experience on dredging contracts, plant design and operation, and examinations for bids; reference to past and present engagements. P. W. 984, Eng. News.

EXPERIENCED FOREMAN (with or without gang) seeks position on construction work; best reference. P. W. 11, Eng. News.

AN ENGINEER OR SUPERINTENDENT of municipal affairs or to act as such on public-utility construction for private or public corporation; by former city manager and municipal engineer with technical education and six years' experience in every class of municipal activity—four as city engineer and two as city manager; will furnish data based on my experience of two years as city manager to cities desirous of adopting the city manager plan; employed at present as engineer of municipal affairs at salary of $1800; best of references; can report at once. Kenyon Riddle, Abilene, Kan.

DIPPER DREDGE SUPERINTENDENT, 10 years' wide experience, three full charge, will operate; best references. P. W. 6, Eng. News.

SUPERINTENDENT having 15 years' experience in charge of steam-shovel work on railways and canals construction wishes position by Apr. 1 with reliable contractor. P. W. 7, Eng. News, Chicago.

SUPERINTENDENT of paving; 22 years' experience with all kind of paving; a thorough organizer; temperate; P. W. 15, Eng. News.

SUPERINTENDENT of construction with 15 years' experience on heavy steam shovel work, earth and rock; good organizer; excellent references. P. W. 23, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN; past four years in charge unit methods of construction; also general experience in industrial buildings construction; age 31; unmarried; will go anywhere. P. W. 28, Eng. News, Chicago.

EXPERIENCED MAN (29) wants employment; urgent; chainman, rodman, timekeeper, stock clerk, night watchman, laborer or clerical work. G. L. M., 10 Pratt Ave., Mt. Vernon, N. Y.

CONTRACTING ENGINEER; 29, married, technical education; 5 years as principal assistant and right hand man on $5,000,000 of work to vice-president and chief engineer of large firm of contracting engineers on heavy pneumatic open foundation bridge work and general contracting; position required engineering and executive ability. P. W. 43, Eng. News.

CARPENTER FOREMAN or general, capable of taking full charge designing and building forms of all kinds, plant installation and management; sober and a live one. P. W. 46, Eng. News.

ENGINEER, 8 years' railroad experience wishes position as valuation engineer; references. P. W. 52, Eng. News.

SUPERINTENDENT OF CONSTRUCTION; 35 15 years' practical experience reinforced-concrete bridges, industrial buildings, dams, viaducts, etc.; good organizer; can produce results; best references; anywhere. P. W. 47, Eng. News.

ENGINEER with 12 years' experience, as follows: Railroad survey and construction, municipal work, sewer, paving, concrete bridge dam and buildings construction, highway construction, timber estimating and reports, expert land surveyor, experienced mill operator and can handle men; wants permanent position; at present employed. P. W. 50, Eng. News.

SUPERINTENDENT, ten years' experience reinforced-concrete buildings; high experience with chutes; sober; highest reference. P. W. 54, Eng. News.

AS SUPERINTENDENT, general or templet shop foreman of bridge and structural plant, 20 years' experience; will go anywhere. P. W. 53, Eng. News.

ENGINEERS TAKE NOTICE, graduate engineer, married, hard times' victim, solicits you aid for employment; 8 years' responsible positions; reinforced-concrete construction, stadia surveys, brick pavements, railroads. P. W. 51, Eng. News.

CONSTRUCTION ENGINEER, 29, technical graduate, six years' experience on construction work, desires position with established contracting firm; willing to make small investment; employed at present. P. W. 34, Eng. News.

CONTRACTOR'S SUPERINTENDENT-ENGINEER, 12 years' experience embracing railroad construction, track elevation, quarrying, heavy concrete work; references; must be permanent; salary $150. P. W. 35, Eng. News, Chicago.

ESTIMATOR in building construction and general contracting work; graduated civil engineer; over 10 years' experience, reinforced-concrete, brick masonry, steel and timber work; A-1 references; wants position. P. W. 61, Eng. News.

POSITIONS OPEN

EXPERIENCED HIGHWAY BRIDGE and structural steel salesman; location Southwest; state age, experience, salary and references. P. 37, Eng. News, Chicago.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

EXPERIENCED FOREMAN seeks position on construction work; will furnish all necessary labor; best reference. L. B. 12, Eng. News.

WANTED

AGENTS AND SALESMEN

ENGINEER with some experience in structural design to sell Winslow's specialized Slide-Rules; simple, direct reading, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

BUSINESS OPPORTUNITIES

ENGINEER'S GRAND OPPORTUNITY—Long-established young contractor with unquestionable reputation and expert knowledge in the economical construction of public and private work and with exceptional ability in securing and executing profitable contracts desires to meet young graduate civil engineer who is willing to learn the contracting and construction line and take an active interest with an investment of from $15,000 to $25,000. B. O. 872, Eng. News.

FOUNDRY AND MACHINE SHOP in Kansas City; established 25 years; doing $100,000 to $125,000 business yearly; 1¼ acres land; brick buildings; located in the center of manufacturing district; have practically a monopoly on architectural castings in this city, and making large amount of machine castings; can make very attractive price and terms. B. O. 38, Eng. News.

WANTED—Party to invest $200,000 in an A1 coal property in Indiana that can be opened up for this amount and put on a paying basis of at least 50c. a ton profit; have a market for 2000 tons a day as soon as I can produce it. For full particulars address B. O. 41, Eng. News.

FOR SALE

ENGINEERING NEWS for sale; 1898-1907 inclusive bound and 1909-1911 inclusive unbound; what offer? F. S. 57, Eng. News.

CORRESPONDENCE COURSES

of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

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The personal attention of the engineer who prepared these courses is given to all the work submitted by each subscriber and therefore the membership is limited.

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PROVIDE ACTUAL EXPERIENCE

and save years spent in mis-directed efforts which are a necessary result of trying to acquire experience without the direct aid and assistance of an engineer properly experienced in such work.

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N

ADDRESSES

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CARPENTER & Boxley & Herrick, Inc., 4th Ave. and 70th St., B'klyn, N. Y.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition.—THEO. SMITH & SONS CO., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

4—15 H.P. Abenaque outfits.—SCHMIDT.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. **Horizontal return tubular**, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

BRIDGES

Revolving bridge 137' long, 21' wide, plank flooring, hand rails, hand power, located at New York City; can be inspected before removal.—PIPE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

CARS

[Standard Gauge]

45—80,000 lb. flat cars, cheap.—WHITNEY.

[36" Gauge]

100 Western 4-yd. dump and 26 Koppel steel concrete.—CARPENTER.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

[Wanted]

30 dump cars, 36" gauge.—W. 899, Eng. News.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

DERRICKS

5 traveling, 50 HP. Lambert elec. hoists.—CARPENTER.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

DRILLS

6 Ingersoll, type F-24, and 2 class "C" Little Giant rock drills.—BECKWITH.

Keystone traction No. 3 with placer equipment located at Prescott, Ariz.—L. J. HOHL, 525 Market St., San Francisco, Calif.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33" diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

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Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$190 Sala Lt. Mt. Transit V circle, good cond., $115; $100 Buff & B. engrs. Dumpy level, inverting, fine, $70. Guaranteed. 99 others. Rentals, repairs, supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

5—11x16 Vulcan dinkies 1936 to 2039.—CARPENTER.

3—9x14 Porter dinkies 3146 to 3589.—CARPENTER.

[Wanted]

2 locomotives, 36" gauge.—W. 898, Eng. News.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

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Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

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Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

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1 Cameron 3½x2x4 Steam pump.—SAMPSON.

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2 Davidson Simplex 9x9x11.—MARINE.

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE

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Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

1—One million gallon, vertical, compound McGowan; only in operation about three years; reason for selling, installation of new equipment. Pump in good condition. Price and full description will be given by S. R. BLAKEMAN, Supt. of City Water & Light Dept., Dyersburg, Tenn.

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500 tons first-class 56 and 60 lb. rail.—CARPENTER.

40 ton of 35 lb. with fish plates.—PIPE.

20,000 cu.ft. 24″ gauge 20 lb. portable track.—SCHMIDT.

[Wanted]

2000 ft. 36″ gauge track.—W. 897, Eng. News.

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10-ton Russell, 3 wheel; overhauled, $1100.—GRIMSHAW.

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1—5 ton Kelley tandem and 1—7 ton Chicago tandem, both rollers have been used but upon two jobs and are in most excellent condition.—Address the AMERICAN NATIONAL BANK, Findlay, Ohio.

Macadam and asphalt roller; also roller renting business located in N. Y. City.—F. S. 33, Eng. News.

10-ton macadam, used very little.—F. S. 31, Eng. News.

[Wanted]

Tandem paving roller. Send lowest cash price and description to W. 32, Eng. News.

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2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

1 Marion Model 60, 1439 with 1 standard and 1 special boom, and 1 Model 75, 2112.—CARPENTER.

⅝ yd. Thew No. O, traction wheels; first-class, $2250.—GRIMSHAW.

Marion Model 31 revolving shovel for sale at Ringtown, Schuylkill County, Pa.—BENNETT & RANDALL, Lebanon, Pa.

[Wanted]

¾ yd. traction type.—W. 900, Eng. News.

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1 15-ton electric 36′ 6″ span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

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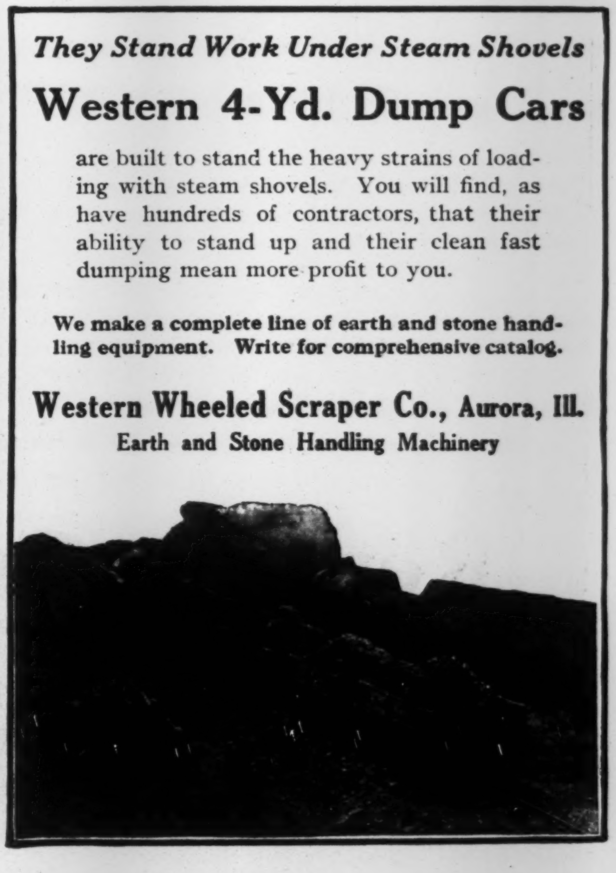

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are built to stand the heavy strains of loading with steam shovels. You will find, as have hundreds of contractors, that their ability to stand up and their clean fast dumping mean more profit to you.

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Perfecting Wood-Block Paving

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There is no mystery about this. Reilly Improved Creosote Oil is simply **pure creosote.** It contains no "dope" or foreign substances. In consequence it is everlasting—it outlives the mechanical life of the block.

We will furnish you Perfect Wood Paving Blocks, ready to lay, or if you are equipped to treat timber ties, cross-arms, telephone and telegraph poles, mine props, etc., we are ready to supply any quantity of pure Reilly Improved Creosote Oil. Three big plants, insuring immediate shipment.

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Steam Turbine Driven Centrifugal Pump

Kansas City, Mo.

SEALED PROPOSALS will be received by the Purchasing Agent of Kansas City, Missouri, at the office of the Purchasing Agent, Second Floor, City Hall, until two o'clock p.m. of Wednesday, May 5th, 1915, for the designing, construction, delivery and erection of a steam turbine, reduction gear, centrifugal pumping unit of a capacity to pump continuously twenty (20) million U. S. gallons of water per twenty-four (24) hours, against a total combined head of three hundred and sixty (360) feet and steam pressure of one hundred and sixty-five (165) pounds per square inch at throttle; together with all machinery, tools and appurtenances necessary; all in accordance with the plans and general specifications on file in the office of the Chief Engineer of the Water Department.

Each bidder shall deposit with the City Comptroller a certified check in the amount of Seven Hundred and Fifty Dollars ($750.00), payable to the City Comptroller of Kansas City, Missouri, and accompany his bid with the Comptroller's receipt therefor.

The certified check referred to in the Advertisement shall be submitted by each bidder as a guaranty that the bidder will, within ten (10) days after receiving the award of a contract, file with the City a satisfactory bond to the amount of Twenty-five Thousand Dollars ($25,000.00) and will execute the contract.

The Board of Fire and Water Commissioners does not bind itself to accept the lowest or any bid offered, and reserves the right to reject any and all bids and to waive any informality when it seems to be to the interest of Kansas City, Missouri, to do so.

J. P. LANGAN, Purchasing Agent.
BURTON LOWTHER, Chief Engineer.

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Bids received until Apr. 12, 1915.

Asphalt Road Oil

Montclair, N. J.

Sealed bids will be received by the Town Clerk of the Town of Montclair for furnishing asphalt road oil containing approximately forty-five (45%) per cent. of asphalt for use in oiling the streets in Montclair during the year of 1915.

Bids will be received both for furnishing oil in tank car lots, f.o.b. Montclair, or applied to the streets of the Town on a square yard basis, all according to specifications on file in the office of Edgar S. Closson, Town Engineer and there to be seen. Bids to be acceptable must be submitted on the proposal blank furnished by the Town; must be accompanied by a certified analysis of the oil; a certificate of the source of supply and method of manufacture; and a one quart sample of the oil which it is proposed to furnish.

The estimate of the amount of oil required is 130,000 gallons and the number of square yards requiring oiling is estimated at 800,000.

Each bid must be accompanied by a forfeit of three hundred and twenty-five ($325) dollars to insure the signing of the contract and bond by the successful bidder within two weeks after the award shall have been made.

All bids must be in by Monday, April 12th, 1915, at 8 p.m. at the Town Clerk's office, Municipal Building, Montclair, N. J.

The Council reserves the right to award the contract to the lowest bidder or bidders who furnish satisfactory evidence of their ability to carry out the contract as regards time, quality of work to be done and materials furnished. The contract will not necessarily be awarded to the lowest bidder. The quality of oil furnished together with its price will both receive consideration in making the award.

HARRY TRIPPETT, Town Clerk.

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U. S. ENGINEER OFFICE, Room 325 Custom House, New Orleans, La., Mar. 29, 1915—Sealed proposals for furnishing coal for United States plant from July 1, 1915, to June 30, 1916, will be received at this office until 11 A.M., May 3, 1915, and then publicly opened. Information on application. EDWARD H. SCHULZ, Maj., Engrs.

Bids received until Apr. 12, 1915.

Barn and Vegetable Cellar

Bath, N. Y.

Sealed proposals for construction of Barn and Vegetable Cellar for the New York State Soldiers' and Sailors' Home, Bath, N. Y., will be received by Hon. Joseph A. Goulden, President, Board of Managers, New York State Soldiers' and Sailors' Home, Bath, N. Y., until 11 o'clock A.M. on April 12, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of $300.00 for the Barn and $100.00 for the Vegetable Cellar. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. (50%) of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specification No. 2230. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Soldiers' and Sailors' Home, Bath, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York for each set of plans and specifications, which check will be returned when plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

WM. H. NICHOLS, Secretary.

Dated
Bath, N. Y., March 23, 1915.

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Bids received until Apr. 12, 1915.

Resurfacing Asphalt

Montclair, N. J.

Sealed bids will be received by the Town Clerk of the Town of Montclair for furnishing asphalt for use in resurfacing streets in the Town of Montclair during 1915.

Bids will be required to state the price per gallon f.o.b. Montclair in tank cars or in barrels, all according to the specifications on file in the office of Edgar S. Closson, Town Engineer and there to be seen.

Bids to be acceptable must be submitted on the proposal blank furnished by the Town; must be accompanied by a certificate of the source of supply and method of manufacture; a certified analysis of the asphalt; and a one pound sample of the asphalt which it is proposed to furnish.

The estimate of the amount of asphalt required is 50,000 gallons.

Each bid must be accompanied by a certified check for $250.00 to insure the signing of the contract and bond by the successful bidder within two weeks after the award shall have been made.

All bids must be in by Monday, April 12th, 1915, at 8 P.M. at the Town Clerk's office, Municipal Building, Montclair, N. J.

The Council reserves the right to award the contract to the lowest bidder or bidders who furnish satisfactory evidence of their ability to carry out the contract as regards time, quality of work to be done and materials furnished. The contract will not necessarily be awarded to the lowest bidder. The quality of asphalt furnished together with its price will both receive consideration in making the award.

HARRY TRIPPETT, Town Clerk.

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PROPOSALS FOR MANILA BOLT ROPE—Mississippi River Commission, First and Second Districts, Custom House, Memphis, Tennessee, March 20, 1915.—Sealed proposals for furnishing and delivering 62,200 lbs. pure manila bolt rope, will be received at this office until 11 a.m., April 10, 1915, and then publicly opened. Information furnished on application E. M. MARKHAM, Maj., Engrs.

Bids received until Apr. 14, 1915.

Sanitary Contract No. 149, Covering Section 1 of the Gwynn's Falls Interceptor

OFFICE OF THE SEWERAGE COMMISSION OF THE CITY OF BALTIMORE

Baltimore, March 24, 1915.

SEALED PROPOSALS, in duplicate, indorsed "Proposal for building Gwynn's Falls Interceptor, Section No. 1, Sanitary Contract No. 149," addressed to the Board of Awards of Baltimore City, will be received at the office of the City Register, City Hall, Baltimore, Md., until 11 A.M., Wednesday, April 14th, 1915, for building Section No. 1 of the Gwynn's Falls Interceptor, as shown on plans on file in the office of Mr. Calvin W. Hendrick, Chief Engineer of the Sewerage Commission.

Specifications and plans can be obtained upon application at the office of the Secretary of the Commission, 904 American Building on and after Tuesday, March 30th, 1915.

A charge of $5.00 will be made for each set of specifications and plans, which charge will be refunded upon the return on or before April 14th, of the unused specifications and blueprints in good condition, or upon the return of the General Specifications and plans in case a bid is submitted.

A certified check of the bidders on a clearing house bank, in the sum of $1,500.00, made payable to the order of the Mayor and City Council of Baltimore, will be required to be deposited with each bid.

APPROXIMATE QUANTITIES

6,200 cu.yds. earth and rock excavation.

4,350 lin.ft. 30" sewer, for which bids are asked on the following types of sewer: brick and plain concrete; Reinforced concrete pipe; and segmental tile.

The successful bidder on this contract will be required to give bond and comply with the City Charter respecting contracts.

The Board of Awards reserves the right to reject any and all bids.

By order of the Sewerage Commission.

CHARLES ENGLAND,
Chairman.
HARRY W. RODGERS,
Secretary.

Approved: March 24, 1915.

JOHN HUBERT,
Acting President, Board of Awards.

⁂

Bids received until Apr. 6, 1915.

Repaving Streets

Bayonne, N. J.

SEALED PROPOSALS will be received by the Council of the City of Bayonne, N. J., at a meeting to be held in the City Hall, on

TUESDAY, APRIL 6, 1915,
at 8 o'clock P.M.,

for all labor and material required for the repaving with asphalt pavement, laid on old macadam foundation, the following streets: Thirty-fourth Street, from Avenue E to Avenue A; Thirty-sixth Street, from Broadway to Hudson Boulevard; Fifty-fourth Street, from Broadway to Hudson Boulevard, all under one contract.

There will be required about 20,980 square yards asphalt paving (wearing surface and binder); 11,460 lin. feet old curb realigned and redressed; 175 lin. feet new curb set in concrete; 600 cubic yards broken stone, together with other appurtenances.

All bids must be on the regular forms provided for the purpose, and submitted in sealed envelopes, plainly endorsed with the name of the bidder and the title of the improvement.

Checks submitted in lieu of bond must be certified, or the bid will be rejected.

Plans and specifications for the work are on file in the office of the City Surveyor, where blank forms of proposals or any other information may be obtained.

The amount of bond required is $13,000.

The time allowed for the completion of the work is ninety (90) days.

The Council reserves the right to reject any or all bids.

By order of the Council.

WM. P. LEE, City Clerk.

Bids received until Apr. 6, 1915.

Reimproving Streets

Bayonne, N. J.

SEALED PROPOSALS will be received by the Council of the City of Bayonne, N. J., at a meeting to be held in the City Hall, on

TUESDAY, APRIL 6, 1915,
at 8 o'clock P.M.,

for all labor and material required for the reimprovement of the following streets: Sixteenth Street, between Broadway and Hudson Boulevard; Thirty-second Street, between Avenue A and Avenue E, with sheet asphalt, all under one contract.

There will be required about 14,900 square yards asphalt paving, 7,800 lin. feet old curb realigned and redressed, 150 lin. feet new curb, set in concrete; 150 lin. feet curb reset in concrete, 500 cubic yards broken stone, together with other appurtenances.

All bids must be on regular forms provided for the purpose, and submitted in sealed envelopes, plainly endorsed with the name of the bidder and the title of the improvement.

Checks submitted in lieu of bond must be certified, or the bid will be rejected.

Plans and specifications for the work are on file in the office of the City Surveyor, where blank forms of proposals or any other information may be obtained.

The amount of bond required is $10,000.

The time allowed for the completion of the work is sixty (60) days.

The Council reserves the right to reject any or all bids.

By order of the Council.

WM. P. LEE, City Clerk.

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Bids received until Apr. 13, 1915.

Highways

SEALED BIDS will be received by the Board of Water Supply, at its offices, twenty-second floor, Municipal Building, Park Row, Centre and Chambers Streets, New York City, until 11 A.M., on Tuesday, April 13, 1915, for Contract 152, for surfacing with vitrified brick blocks and macadam about 5 miles of highways and constructing about 8 miles of guard walls, at the Ashokan reservoir, in the towns of Olive, Marbletown and Hurley, Ulster county, New York. The grading for these highways has been largely done under other contracts.

At the above place and time the bids will be publicly opened and read. Pamphlets containing information for bidders, and contract drawings can be obtained at the above address, at the office of the Secretary, by depositing the sum of ten dollars ($10) in cash or its equivalent for each pamphlet. For further particulars apply to the office of the Principal Assistant Engineer at the above address.

CHARLES STRAUSS, President,
CHARLES N. CHADWICK,
JOHN F. GALVIN,
Commissioners of the Board of Water Supply.
W. BRUCE COBB, Secretary.

⁂

Bids received until Apr. 12, 1915.

Notice for Bridge Bids

Columbus, Mont.

Board of County Commissioners of the county of Stillwater, Montana, will receive bids for bridges on or before 10:00 o'clock A.M. of April 12th, 1915, at which time bids will be opened.

Bids to be on the following bridges:

No.	Where	Length of Bridge, feet
9	Skew Bridge, Shane Creek....................	22
11	Butcher Creek, at Campbell place.............	30
12	East Rosebud, 5 miles above L. C. Piper......	60
13	West Rosebud, above Fishtail.................	55
14	Absarokee, Rosebud River, riveted span.......	95

The board reserves the right to reject any or all bids. All bids must be addressed to Lloyd B. Barley, County Clerk, Columbus, Mont., inclosing certified check of 5 per cent. of bid.

For further particulars, specifications and plans for these bridges, write or call on R. W. BARR, County Surveyor.

By order of Board of County Commissioners.

B. F. HARRIS, Chairman,

By Lloyd B. Barley, County Clerk.

Dated this 6th day of March, 1915.

Bids received until Apr. 6, 1915.

Street Improvements

Bayonne, N. J.

SEALED PROPOSALS will be received by the Council of the City of Bayonne, N. J., at a meeting to be held in the City Hall, on Tuesday, April 6th, 1915, at 8 o'clock p.m., FOR ALL LABOR AND MATERIAL REQUIRED FOR THE IMPROVEMENT OF THE FOLLOWING STREETS, VIZ.:

(1) Fourteenth Street, from Hudson Boulevard to Avenue A;
(2) Orient Street, from Fifth Street to Evergreen Street;
(3) Twentieth Street, from Hudson Boulevard to Avenue A;
(4) Thirty-eighth Street, from Hudson Boulevard to Avenue C;
(5) Hobart Avenue, from Third Street to Oak Street;
(6) Forty-seventh Street, from Broadway to Avenue E;
(7) Fifty-first Street, from Avenue B to Hudson Boulevard;
(8) Fifteenth Street, from Avenue A to Hudson Boulevard;
(9) Fifty-third Street, from Hudson Boulevard to Broadway;
(10) Twelfth Street, from Avenue A to Dummy Road;
(11) Linnet Street, from Orient Avenue to Ingham Avenue;
(12) Fiftieth Street, from Hudson Boulevard to Avenue C;
(13) Lord Avenue, from Fifth Street to Third Street;
(14) Avenue C, from Fifty-fourth Street to Morris Canal;
(15) Forty-first Street, from Avenue B to Avenue C;
(16) George Street, from Lexington Avenue to Hobart Avenue;
(17) Avenue A, from North Street to Thirty-first Street, with sheet asphalt, in accordance with plans and specifications on file.

Separate bids will be received for each street.

There will be required about 93,900 square yards asphalt paving on concrete, 35,000 lin. feet new bluestone curb, 6,500 lin. feet old curb reset, 9,500 square feet new concrete flag, 60,300 square feet flag reset, 100 square yards Belgian block pavement relaid, 63,800 square feet new bluestone flag, 2,300 lin. feet new concrete curb, 1,930 lin. feet new concrete curb and gutter, 43,200 cubic yards excavation, together with other appurtenances.

All bids must be on the regular forms provided for the purpose, and submitted in sealed envelopes plainly endorsed with the name of the bidder and the title of the improvement.

Checks submitted in lieu of bond must be certified, or the bid will be rejected.

Plans and specifications for the work are on file in the office of the City Surveyor, where blank forms of proposals or any other information may be obtained.

The amount of bond required and the time allowed for the completion of the work shall be as provided in the specifications.

Bids will be received subject to the filing of remonstrances against any of said improvements as provided by law, and the Council reserves the right to reject any and all bids.

By order of the Council.

WM. P. LEE, City Clerk.

⁂

Bids received until Apr. 5, 1915.

Cement, Stone, Pipe, etc.

CORPORATION OF THE CITY OF WESTMOUNT, QUEBEC.
City Engineer's Department.

Tenders are invited for the following supplies for the year commencing 1st May, 1915:

1—Cement
2—Sand
3—Quarried stone
4—Crushed stone
5—Paving Blocks
6—Sewer Pipes
7—Bricks
8—Farm Tile
9—Coal

Specifications, form of tender and other information can be obtained at the office of the undersigned.

Sealed tenders marked "Tenders for Supplies" will be received by the Secretary-Treasurer up to Twelve Noon, April 5th, 1915.

The City Council reserves the right to reject the lowest or any tender and do not guarantee to grant an exclusive contract to any tenderer.

P. E. JARMAN, City Engineer.

Bids received until Apr. 19, 1915.

Notice to Waterworks Tunnel Contractors

OFFICIAL NOTICE NO. 23
PUBLISHED BY AUTHORITY OF THE COMMON COUNCIL OF THE CITY OF MILWAUKEE.
OFFICE OF THE DEPARTMENT OF PUBLIC WORKS.
Milwaukee, Wisconsin.

Sealed proposals will be received at this office until Monday, April 19th, 1915, at 10:30 o'clock A.M., for furnishing all materials and doing all the work necessary and required for constructing the Shore Tunnel and all shafts of the Linwood Avenue Intake on the western shore of Lake Michigan, in the City of Milwaukee.

The work to be done is included in one contract. It embraces the construction of a concrete lined tunnel and the necessary shafts, on the western shore of Lake Michigan, between the North Point Pumping Station and the Shore Shaft of the Linwood Avenue Intake Tunnel, or between the lines X and Y as shown on Sheet Number 1 of the plans. It requires the construction of approximately: Five thousand six hundred and eighty (5,680) lineal feet of concrete lined tunnel, nine (9) feet in internal diameter, and the necessary number of shafts, all as shown upon the plans and described in the specifications, now on file in the office of the City Engineer.

Bidders will submit prices as described in "Instructions to Bidders."

The time allowed for completing the contract shall be three hundred and fifty-five (355) working days (working days meaning such as are particularly described in the Contract).

The lowest competent bidder will be awarded the Contract and will be required to enter into a contract with sureties as required by law, which contract contains a bond with penal sum of 25% of the estimated cost of the work—being in this case $57,000.00.

Bidders are required to furnish bid bonds in the penal sum of $68,400.00, or in lieu thereof the bidder may deposit with the Commissioner of Public Works the sum of $34,200.00 in money or certified bank check, payable to the Commissioner of Public Works.

In case bonds are submitted with bids, local bondsmen or a surety company, authorized to do business in Wisconsin, will be required, said bond to be approved by the City Attorney as to form and execution before being presented with bid to the Commissioner of Public Works.

Specifications and blank forms of proposals can be obtained, and plans examined, at the office of the City Engineer.

The prices must be written in the proposal and also stated in figures. In case of variation, the written prices will prevail.

All moneys deposited will be returned to unsuccessful bidders on award of contract and to successful bidder when contract is entered into. Bid bonds will be cancelled under same conditions.

The Commissioner of Public Works reserves the right to reject any or all bids.

Bidders are required to submit with their proposals, the method they intend to adopt in carrying out this work.

Full sets of plans will be sent to any Contractor desiring to bid, upon the receipt of Ten ($10.00) Dollars.

Signed, FRED G. SIMMONS,
Commissioner of Public Works.

Countersigned,
LOUIS M. KOTECKI, Comptroller.

⁂

Bids received until Apr. 12, 1915.

Reinforced Concrete Arches

Camden, N. J.

Separate sealed proposals are invited for constructing two reinforced concrete arches on Kings Highway for Camden County.

Plans and specifications are filed with the Engineering News, New York City; also with Fred. W. George, Clerk, Board Chosen Freeholders, Court House, Camden, N. J., who will mail a set to any address on receipt of $1.00 for each culvert. Bids will be received at Court House, Camden, immediately opened and publicly read on Monday, April 12th, at 11 A.M. Each bid must be accompanied by a certified check or cash in the sum of $1000.

FRED. W. GERCKE, Chairman Bridge Comm.
J. J. ALBERTSON, Co. Eng'r.
March 12, 1915.

Bids received until Apr. 20, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Tuesday, April 20th, 1915, for the repair of contracts in the following counties:

Albany (one contract—resurfacing 1.9); Broome (one contract—surface treatment 5.73); Chenango (one contract—surface treatment 1.07); Clinton (one contract—resurfacing 7.34); Delaware (one contract—surface treatment 1.00); Essex (one contract—resurfacing 3.64); Onondaga, three contracts (resurfacing—1.72, 2.21, 2.50); Oswego, two contracts (resurfacing—3.09, 2.09); Otsego (one contract—surface treatment 9.07); Rensselaer (one contract—resurfacing 2.46); Saratoga (one contract—resurfacing 3.79); Schoharie (one contract—surface treatment 8.49); Seneca (one contract—resurfacing 5.72); Sullivan (one contract—resurfacing 1.50); Suffolk (one contract—resurfacing 3.82); Warren (one contract—resurfacing 4.12); Wayne (one contract—surface treatment 7.01); Wyoming (one contract—resurfacing 1.28).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.

I. J. MORRIS, Secretary.

⁂

Bids received until Apr. 20, 1915.

Water Pipes, Valves, etc.

Sacramento, California, March 18, 1915.

Sealed bids or proposals for the furnishing and installing of riveted steel and cast iron water pipes, valves, hydrants and other appurtenances, in the streets, alleys and rights of way in the City of Sacramento, Sacramento County, California, for the City of Sacramento and endorsed, "Proposal for the Furnishing and Installing of Riveted Steel and Cast Iron Water Pipes for Sacramento, California," will be received at the office of the City Clerk, City Hall, Sacramento, Calif., between the hours of 10:30 and 11:30 A.M., Tuesday, the twentieth day of April, 1915, and will be publicly opened and read in the Council Chamber, City Hall, Sacramento, on Tuesday, the twentieth day of April, 1915, after 11:30 o'clock A.M.

All bids shall be made upon the blank form of proposal contained in a pamphlet with the contract, specifications and drawings, to be obtained at the office of the City Clerk, City Hall, Sacramento, Calif.

Each proposal shall be accompanied by a certified check, made payable to the City Clerk, amounting to (10) per cent. of the higher alternative bid. A liability bond amounting to fifty (50) per cent. and a contract guaranty bond amounting to ten (10) per cent. of the contract price will be required of the successful bidder.

The funds for payment on said work must be obtained from the sale of Sacramento Water Mains Bonds bearing interest at the rate of four and one-half (4½) per cent. per annum, said bonds being on hand and unsold. These bonds must be sold and the money required for all work which is estimated may exceed the bid by at least fifteen (15%) per centum must be deposited in the City Treasury before the contract is finally signed.

Some of the More Important Elements of the Work are as Follows:

126,000 cubic yards of excavation,

126,000 cubic yards of backfill,

417,920 linear feet of cast iron pipe, four inches to sixteen inches in size.

39,990 linear feet of riveted steel pipe, twenty, twenty-four, thirty, and thirty-six inches in size,

758 hydrants,

1,472 valves four inches to thirty inches.

220 tons cast iron special fittings,

22,084 square yards of macadam, asphalt, Asphalt Macadam, and basalt blocks pavement to be removed and replaced.

The above quantities are approximate and given merely for the guidance of prospective bidders and are not guaranteed as correct.

Alternative bids are requested, (a) for the materials and work complete in every detail, and (b) for the material and work complete with the exception of freight charges on pipe, special fittings, hydrants and valves.

The City Commission reserves the right to increase or decrease the amount of any class or portion of the work or material as they deem necessary or proper and to reject any or all proposals or to accept any proposal, if they deem it to the interest of the City of Sacramento so to do.

It is the intention to let the work as a whole and not in parts.

A deposit of five ($5.00) dollars will be required for each copy of the pamphlet containing the complete contract documents which may be obtained from the undersigned.

M. J. DESMOND, City Clerk.

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Bids received until Apr. 21, 1915.

Pumping Station Equipment

Durham, N. C.

Sealed Proposals will be received by the Mayor and Board of Aldermen of the City of Durham, N. C., at the City Hall, until 3 P.M. April 21st, 1915, for "Pumping Station Equipment" consisting of three-million gallon Crank and Flywheel Pumping Engines, Turbine driven Centrifugal Pumps, Feed Pumps, Open Feed Water Heaters, 5 K.W. and 7½ K.W. D.C. Electric Lighting Units, Manning Boilers.

Proposals must be marked "Proposal for Pumping Station Equipment."

All proposals must be upon blank forms provided in Proposal and Contract.

Each proposal must be accompanied by a certified check for not less than five per cent. of the amount of the bid, as an evidence of good faith.

Specifications, Contract and Proposal forms will be on file in the office of the City Engineer in Durham or will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by payment of Ten Dollars to insure their return in good condition within thirty days after the date of receiving proposals.

The right is reserved to reject any or all proposals or to consider proposals on alternate equipment.

W. J. BROGDEN, Mayor,

GEO. W. WOODWARD, Clerk.

Engineer—
GILBERT C. WHITE, Charlotte, N. C.

⁂

Bids received until Apr. 6, 1915.

Reimprovement of Streets

Bayonne, N. J.

SEALED PROPOSALS will be received by the Council of the City of Bayonne, N. J., at a meeting to be held at the City Hall, on

TUESDAY, APRIL 6, 1915,
at 8 o'clock P.M.,

for all labor and material required for the reimprovement of the following streets: 5th Street, from Avenue A to Broadway; 8th Street, from Avenue A to Broadway, and Humphreys Avenue, from 5th Street to 7th Street, with bituminous concrete, all under one contract.

There will be required 17,800 square yards bituminous concrete, 10,600 lin. feet old curb realigned and redressed, 700 lin. feet new curb set in concrete, 900 cubic yards broken stone, together with other appurtenances.

All bids must be on the regular forms provided for the purpose and submitted in sealed envelopes plainly endorsed with the name of the bidder and the title of the improvement.

Checks submitted in lieu of bond must be certified, or the bid will be rejected.

Plans and specifications for the work are on file in the office of the City Surveyor, where blank forms of proposals or any other information may be obtained.

The amount of bond required is $13,000.00.

The time allowed for the completion of the work is seventy (70) days.

The Council reserves the right to reject any or all bids.

By order of the Council.

WM. P. LEE, City Clerk.

Bids received until Apr. 19, 1915.

Water Works Construction

Peoria Heights, Ill.

Sealed bids will be received, for the construction of a Water Works System, by the Board of Local Improvements of the Village of Peoria Heights, Illinois, until the 19th day of April, A.D. 1915, at the hour of 8 P.M., at the Village Hall in said Village of Peoria Heights, Illinois, at which time and place said bids will be publicly opened.

The work will include:

a. 85,085 lineal feet of cast iron pipe with specials.
b. 98 Hydrants, 69 valves and 69 valve boxes.
c. Two (2) Centrifugal Pumps directly connected to Motors, and electric controls for same.
d. Construction of Pumping Station.
e. Construction of Steel Tower and 50,000 gal. Tank.

Proposals must be made upon blanks furnished by said Board and in compliance with the instructions thereto attached, and must be accompanied by cash or by check payable to the order of the President of said Village in his official capacity, certified by a responsible bank, for an amount not less than fifteen (15) per cent. of the aggregate of the proposal.

The right is reserved to reject any and all bids, as authorized by law.

Plans and Specifications may be seen at both addresses given below, or may be obtained by depositing five (5) dollars for each set, said deposits to be returned upon the return of plans and specifications in good order. Specifications used in making a bid will be considered as returned.

For further particulars address E. J. Brayton, Village Clerk, Peoria Heights, Illinois, or Chas. H. Dunn, Civil Engineer, 29 and 30 Arcade Building, Peoria, Illinois.

◆

Bids received until Apr. 21, 1915.

Water Works Improvements

Durham, N. C.

Sealed Proposals will be received by the Mayor and Board of Aldermen of the City of Durham, N. C., at the City Hall, until 3 P.M. April 21st, 1915, for "Water Works Improvements," consisting of:

River Pumping Station, City Pumping Station, Filter House and Concrete Clear Water Well, Coagulating Basin, Filter Equipment for four units of ¾ million gallons each, Laying nine miles 20-inch cast iron pipe, Two Radial Brick Chimneys.

Proposals must be marked "Proposal for Water Works Improvements."

All proposals must be upon blank forms provided in Proposal and Contract.

Each proposal must be accompanied by a certified check for not less than five per cent. of the amount of the bid, as an evidence of good faith.

Specifications, Proposal and Contract forms and plans will be on file in the office of the City Engineer in Durham or will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by the payment of twenty-five dollars to insure their return in good condition within thirty days after the date set for receiving proposals.

The right is reserved to reject any or all proposals.

W. J. BROGDEN, Mayor,
GEO. W. WOODWARD, Clerk.

Engineer—
GILBERT C. WHITE, Charlotte, N. C.

◆

Bids received until Apr. 9, 1915.

Vitrified Brick Pavement

DEPARTMENT OF WORKS

Oswego, N. Y., March 26, 1915.

Sealed proposals will be received by this Department until 2 P.M., April 9th, 1915, for the construction of approximately 4000 sq. yards of Vitrified Brick Pavement with concrete curb and gutter, concrete foundation, etc., and for resurfacing approximately 8500 sq. yards of old sheet asphalt pavement with Vitrified Brick, using the present concrete foundation, together with such work to curbing, catch basins, foundation, etc., as may be found necessary.

The work will be divided into three contracts.

Plans and specifications may be obtained by application to the Commissioner of Works.

The right to reject any or all bids is reserved.

CHARLES W. LINSLEY,
Commissioner of Works.

Bids received until May 15, 1915.

Pumping Engine

Binghamton, N. Y., March 26, 1915.

The Board of Water Commissioners of the City of Binghamton, New York, will receive sealed proposals until ten o'clock A.M., on the fifteenth day of May, 1915, for furnishing and installing complete:

One (1) Horizontal Cross-Compound High Duty Crank and Flywheel Pumping Engine of 10,000,000 gallons daily capacity.

Proposals must include all piping necessary within the engine room walls, together with such gauges, revolution counters, tools and attachments as are generally furnished to constitute a complete and first-class pumping plant of this capacity.

In order to receive consideration, proposals must be accompanied by a certified check made payable to the Board of Water Commissioners of Binghamton, N. Y., or a bond of some approved trust company and acceptable to the Board and in their favor in the sum of Two Thousand Five Hundred ($2,500) Dollars, which amount shall be forfeited to the above Board as representatives of the City of Binghamton without recourse by the company or person to whom an award of contract shall be made in case such company or person shall fail to enter into a contract with the city within fifteen (15) days after having been notified of such award.

Parties tendering proposals must file with such proposals a set of full detailed specifications which shall describe in a comprehensive manner the different parts of the engine, giving sizes and dimensions of the same, and also the name of the material from which parts are to be constructed.

There must also be furnished with all proposals detailed blue prints or drawings sufficient for the Board and its Engineer to easily understand the construction and working parts of the engine proposed.

The time necessary to construct and install complete the Pumping Engine proposed must be specifically stated, as a forfeit will be exacted in case the time limit named in the contract is exceeded.

The right to reject any or all proposals or to award a contract in such a manner or to such parties as may be deemed for the best interests of the City of Binghamton is reserved by the Board of Water Commissioners.

Specifications may be had upon application to the secretary.

JOHN D. DAVIDSON, Secretary,
Binghamton, N. Y.

◆

Bids received until Apr. 13, 1915.

Building Construction, etc.

Industry, N. Y.

Sealed proposals for alterations and additions to Hospital Building, construction; heating; plumbing and drainage and electric work at the New York State Agricultural and Industrial School, Industry, N. Y., will be received by Mrs. Warham Whitney, President of the Board of Managers of the State Agricultural and Industrial School, Industry, N. Y., until 12 o'clock noon, April 13, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of $250.00 for construction work; in the sum of $60.00 for heating work; in the sum of $50.00 for plumbing and drainage and in the sum of $25.00 for electrical work. Contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specifications Nos. 2116, 2196, 2176 and 2177. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the State Agricultural and Industrial School, Industry, N. Y.; at the New York office of the Department of Agriculture, Room 1224, Woolworth Building, and at the Department of Agriculture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York, for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

Bids received until Apr. 6, 1915.

Electric Light Improvements

Kinston, N. C.

Sealed Proposals will be received until 5 P.M. of April 6, 1915, by the Mayor and City Council of Kinston, N. C., for Electric Light Plant Improvements.

New equipment includes 300 K.W. engine type generators, two belted generators, switchboard, 450 H.P. four-valve engine, condenser, centrifugal pump and motor, return tubular boilers. Bids on alternates to the above will be considered.

Building construction consists of extension to existing structures, station for centrifugal pumps, and about 1000 feet of terra cotta and cast-iron pipe line.

Each proposal must be accompanied by a certified check for not less than five per cent. of the amount of the proposal.

All proposals must be upon forms provided by the City.

The right is reserved to reject any or all bids.

Specifications, Proposal Form, and Plans will be on file in the office of the City Clerk at Kinston, N. C., and may be obtained from the office of the Consulting Engineer in Charlotte, N. C., upon application, accompanied by payment of five dollars, which will be refunded when Specifications and Plans are returned in good condition within thirty days after the date of receiving proposals.

FRED I. SUTTON, Mayor.
W. B. COLEMAN, Clerk.

Consulting Engineer:
GILBERT C. WHITE, Charlotte, N. C.

⁂

Bids received until Apr. 14, 1915.

Highway Improvements

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at one o'clock p.m., Wednesday, April 14, 1915, for the improvement of Highways in the following counties:

Albany (approx. length, 2.80); Allegany (approx. length, 6.71); Essex (approx. length, 5.34); Franklin, 3 highways (5.50, 4.91, 11.41); Monroe, 2 highways (2.14, 1.87); Oneida (approx. length, 6.65); Oswego, 3 highways (5.41, 5.22, 3.66); St. Lawrence (approx. length, 6.66); Wyoming (approx. length, 3.88).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

⁂

PROPOSALS FOR WIRE, WIRE STRAND, STAPLES AND CLIPS.—Mississippi River Commission, First and Second Districts, Custom House, Memphis, Tennessee, March 20, 1915.—Sealed proposals for furnishing and delivering about 725,000 lbs. galvanized wire, silicon bronze wire, wire strand, and staples, and 36,000 wire rope clips, will be received at this office until 12 m., April 10, 1915, and then publicly opened. Information furnished on application. E. M. MARKHAM, Maj., Engrs.

U. S. ENGINEER OFFICE, Pittsburgh, Pa., March 4, 1915.—Sealed proposals for furnishing and delivering steel maneuver-boat hulls, steamboat and hand capstans, derricks, kevels, spuds, etc., for Dams Nos. 10, 12, 15, 19, 20 and 29, and engines and electric light plants, etc., for maneuver boats at Dams Nos. 10 and 29, Ohio River, will be received at this office until 12 M. (Eastern Standard Time), April 3, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

U. S. ENGINEER OFFICE, 540 Federal Building, Buffalo, N. Y., March 16, 1915.—Sealed proposals for dredging in Niagara River, N. Y., will be received at this office until 11 a.m., April 15, 1915, and then publicly opened. Information on application. J. G. WARREN, Col., Engrs.

U. S. ENGINEER OFFICE, Pittsburgh, Pa., March 6, 1915.—Sealed proposals for building a fire-proof power-house; furnishing and installing one 115-H.P. boiler, one 15-H.P. boiler, one steam-driven air compressor and two air receivers, piping and accessories, and furnishing one feed water heater, one feed water pump and one service water pump at Dam No. 10, Ohio River, will be received at this office until 12 M. (Eastern Standard time), April 5, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

Bids received until April 16, 1915.

Waterworks Improvements

Chillicothe, Mo.

Sealed proposals will be received by the Secretary of the Board of Public Works until 8 P.M., April 16, 1915, for furnishing materials and labor required to construct a filter plant, furnish pumps, motors, etc. and other work in connection with waterworks improvements. Bidders are invited to be present and submit bids on the above.

Complete plans and specifications are on file with the Board of Public Works, or may be seen at the office of the Consulting Engineers, Harper & Stiles, 914 Grand Ave. Temple, Kansas City, Mo. Parties desiring copies for their own use may obtain the same on payment of $10 of which 80% will be refunded if the plans and specifications are returned in good condition within ten days of the date of letting. Bidding blanks will be furnished by the engineers, without charge.

Each proposal must be accompanied by a certified check on a bank or trust company of Chillicothe or Kansas City, Mo. This check shall be equal to 5% of the amount of bid and shall be made payable to J. H. Reynolds, City Treasurer of Chillicothe.

The Board reserves the right to increase or diminish the quantities above mentioned, the right to reject any or all bids, to waive any informalities and to award the contracts as may be deemed to the best interests of the city.

C. F. ADAMS, Pres.,
Board of Public Works.

Attest: P. J. DIXON, Secretary.

⁂

PROPOSALS FOR A GUARD HOUSE AND BAKERY. Office, Depot Quartermaster, El Paso, Texas, March 29, 1915.—Sealed proposals for the construction, plumbing, heating, electric wiring and fixtures, of a guard House and Bakery, at Fort Bliss, Texas, will be received in this office until 11:00 A.M., April 30, 1915, and then opened. Information furnished on application. Applications for plans, etc., should be accompanied by a certified check for $10.00 to insure their return. Envelopes containing proposals should be indorsed "Proposals for Guard House and Bakery, Fort Bliss, Texas," and addressed Major William Elliott, Quartermaster Corps, U. S. Army.

U. S. ENGINEER OFFICE, Wheeling, W. Va., March 29, 1915.—Sealed proposals for furnishing and delivering one service boat, designated No. 10A3, for Lock No. 10, Kanawha River, W. Va., will be received at this office until 11 a.m. (Eastern time), April 29, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

GOVERNORS ISLAND, N. Y. H., Mar. 15, 1915.—Sealed proposals, in triplicate, for furnishing Forage and Straw (three months' and a year's supply) and FUEL, GASOLINE, MINERAL OIL, BEEF and MUTTON, required in Eastern Department during year commencing July 1, 1915, will be received here until 11 a.m., April 14, 1915. Information furnished on application to Department Quartermaster.

U. S. ENGINEER OFFICE, Louisville, Ky., March 19, 1915.—Sealed proposals for furnishing and delivering American Portland Cement for Dam 43, Ohio River, will be received here until 12 noon, central time, April 19, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., March 17, 1915.—SEALED PROPOSALS will be opened in this office at 3 p.m., April 29, 1915, for making betterments in the U. S. Post Office and Court House at Pensacola, Florida. Drawings and specifications may be obtained from the Custodian at Pensacola, Fla., or at this office. O. WENDEROTH, Supervising Architect.

U. S. ENGINEER OFFICE, Room 325 Custom House, New Orleans, La., Mar. 13, 1915.—Sealed proposals for furnishing and delivering about 10,000 cubic yards stone at South Pass and Southwest Pass, Mississippi River, will be received at this office until 11 A.M., April 13, 1915, and then publicly opened. Information on application. EDWARD H. SCHULZ, Maj., Engrs.

U. S. ENGINEER OFFICE, Nashville, Tenn., March 13, 1915.—Sealed proposals for construction and erection of steel gates for Locks B and C, Cumberland River, will be received at this office until 11 a.m., April 12, 1915, and then publicly opened. Information on application. H. BURGESS, Major, Engineers.

U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., March 27, 1915.—Sealed proposals for constructing storehouses and a boat shed on Mill Rock at Hell Gate in East River, N. Y., will be received at this office until 12 M., April 26, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Eng'rs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; **five for Chicago.** Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 42, Eng. News.

MECHANICAL ENGINEER—Long experience with dredging and contractors' plants; design, construction and maintenance; now engaged. P. W. 71, Eng. News.

GRADUATE ELECTRICAL AND MECHANICAL ENGINEER with extensive experience in general engineering desires a position of office engineer with engineering corporation or chief engineer of industrial plant. P. W. 78, Eng. News.

Civil Engineers

GRADUATE ENGINEER, married, wishes work of any kind; can fill any position from axeman to engineer-in-charge; good draftsman; eight years' excellent engineering experience; references. P. W. 75, Eng. News.

CIVIL ENGINEER-SUPERINTENDENT; Assoc. M. Am. Soc. C. E., Member Am. Soc. Test. Mats.; concrete testing and proportioning specialist; experience on buildings, ship canal, locks, docks, dams, breakwaters, railways, roads, mines. P. W. 82, Eng. News.

CIVIL ENGINEER, graduate, will prepare designs, details, estimates and reports; inspecting; New York location. P. W. 87, Eng. News.

GRADUATE CIVIL ENGINEER wants work of any kind in the engineering line; five years' experience, land surveys, canal, roads, sewers and street paving. P. W. 76, Eng. News.

CIVIL ENGINEER, to take full charge of drafting room; design, reproductions, etc.; eight years' experience; references. P. W. 69, Eng. News.

CIVIL ENGINEER, 26, technical graduate, five years' experience in railroad maintenance and municipal engineering and construction. Good references. P. W. 62, Eng. News, Chicago.

CIVIL ENGINEER, 23, technical graduate, desires position where energy and thoroughness will bring results; preferably in the East. P. W. 80, Eng. News.

CIVIL ENGINEER, Jr. Am. Soc. C. E., 26, five years' engineering and construction experience, also three years' experience in paper-mill operation and construction; fine executive ability; at present employed by large paper company; best of references; desires position with reliable firm, with chance for advancement. P. W. 81, Eng. News.

CIVIL ENGINEER, 11 years' varied experience, railroad construction, location and valuation surveys; excellent highway experience; at present in charge of work. P. W. 39, Eng. News, Chicago.

CIVIL ENGINEER; college graduate; Assoc. M. Am. Soc. C. E.; 10 years' experience, design and construction, docks, bridges, roads, canals, surveys. P. W. 21, Eng. News.

GRADUATE CIVIL ENGINEER; 8 years' general experience, four on construction, railroad and land surveying, concrete, sewers, water lines. P. W. 49, Eng. News.

GRADUATE CIVIL ENGINEER; 6 years' experience factory construction and structural drafting; best references. P. W. 58, Eng. News.

CIVIL ENGINEER, 26, two years Hell Gate arch, bridge, one year subway construction, as draftsman, inspector, chief of party; go anywhere. P. W. 88, Eng. News.

VALUATION ENGINEER, eight years' railroad experience, will take full charge field and office work; references. P. W. 68, Eng. News.

Bridge and Structural

BRIDGE AND STRUCTURAL ENGINEER with long experience holding responsible positions wishes to change location. P. W. 986, Eng. News.

STRUCTURAL ENGINEER, graduate, 10 years' experience designing bridges, industrial plants, water-supply, filtration, hydro-electric power. P. W. 10, Eng. News.

STRUCTURAL AND CONCRETE ENGINEER with long experience is open for position; best references. P. W. 5, Eng. News.

STRUCTURAL DRAFTSMAN, 15 years' experience in detailing railroad and highway bridges, mill and office buildings, tanks, towers, etc., desires position, checker or squad foreman. P. W. 67, Eng. News.

STRUCTURAL ENGINEER, graduate, M. Am. Soc. C. E., expert designer of steel and reinforced concrete for industrial buildings, tall office buildings and bridges; good executive and personality. P. W. 63, Eng. News.

Surveyors

INSTRUMENT MAN, eight years' experience; three tropics; go anywhere. P. W. 36, Eng. News.

INSTRUMENTMAN; age 24; single; three years at Mass. Inst. of Tech., and summer surveying camp; 10 months' experience in field and office. P. W. 59, Eng. News.

YOUNG MAN with 11 years' experience in railroad and general engineering desires position as transitman on any class of work; location immaterial; best references. P. W. 70, Eng. News.

YOUNG MAN, 23, three years' practical experience chainman, rodman, leveler, desires position. P. W. 79, Eng. News.

I. C. S. GRADUATE, 20, two years' experience in surveying, drafting; moderate salary. C. E. Norcross, Pemberton, N. J.

TRANSITMAN, TOPOGRAPHER, DRAFTSMAN, four years on railroad location, construction, maintenance, bridges and valuation; available Apr. 15; location immaterial. P. W. 83, Eng. News.

Draftsmen

FIRST CLASS STRUCTURAL DRAFTSMAN; 12 years' experience detailing, estimating, checking, squadman; all lines work; best reference; desires position. P. W. 56, Eng. News.

Superintendents, Etc.

SUPERINTENDENT of paving; 22 years' experience with all kind of paving; a thorough organizer; temperate; P. W. 15, Eng. News.

SUPERINTENDENT, ten years' experience reinforced-concrete buildings; high experience with chutes; sober; highest reference. P. W. 54, Eng. News.

CONSTRUCTION ENGINEER, 29, technical graduate, six years' experience on construction work, desires position with established contracting firm; willing to make small investment; employed at present. P. W. 34, Eng. News.

ESTIMATOR in building construction and general contracting work; graduated civil engineer; over 10 years' experience, reinforced-concrete, brick masonry, steel and timber work; A-1 references; wants position. P. W. 61, Eng. News.

CONTRACTING ENGINEER, 29, married; technical education; five years as principal assistant and right-hand man on $5,000,000 of work to vice-president and chief engineer of large firm of contracting engineers on heavy pneumatic and open foundation bridge work and general contracting; position required engineering and executive ability. P. W. 86, Eng. News.

YOUNG GRADUATE ENGINEER having had at least one year's experience in the making of structural steel shop drawings, to learn designing a special class of structures; moderate salary. P. 84, Eng. News.

ENGINEER, 12 years' experience modern mill and factory practice, design, construction and maintenance, will shortly be open for engagement; references of highest order; salary $2000. P. W. 73, Eng. News.

TOPOGRAPHER, with contracting experience; graduate; recently with government geological survey; plane-table, level or transit; understands provisioning camp; capable running party. P. W. 74, Eng. News.

FOREMAN with several years' experience as timekeeper, paymaster and cost keeper wants position on general contract work in East; age 30; best references. P. W. 85, Eng. News.

ENGINEER-SUPERINTENDENT, broad experience on dredging contracts, plant design and operation, and examinations for bids; reference to past and present engagements. P. W. 72, Eng. News.

YOUNG LADY, seven years' experience, stenographer, typist, bookkeeper, wishes position, having charge of office, with contracting or engineering concern; excellent references; knowledge drafting, Spanish and German; location immaterial. P. W. 64, Eng. News.

POSITIONS OPEN

ADVERTISING SOLICITOR—A young engineer is wanted, capable of interesting advertisers in the Lefax catalog section, to make his headquarters at the Philadelphia office. Advertisers are showing an increasing interest, and there is a splendid opportunity for a resourceful young man with plenty of force to build up a remunerative position for himself in the Lefax organization. Lefax, Inc., 1006 Pennsylvania Building, Philadelphia, Penn.

ESTIMATOR on structural steel and light iron work, with some knowledge of detailing; also detailers on structural steel work for tall buildings; give particulars. P. 65, Eng. News.

TWO FIRST-CLASS TEMPLET MAKERS—All-around men with experience on light structural work; no attention paid to replies not stating full particulars and rate wanted, also when available. Address Berlin Construction Co., Berlin, Conn.

FIRST-CLASS CENTRIFUGAL PUMP DESIGNER; must have experience with large concern in predetermining impeller characteristics. Give salary expected and full particulars. P. 89, Eng. News.

WANTED for the New York office of a water treatment and supply company a mechanical engineer experienced in designing and drafting of machinery, boiler and pipe works and capable of instructing and supervising young draftsmen; knowledge in water treatment not a condition. Communicate in writing, stating experience, qualifications, references and salary expected. P. 77, Eng. News.

Civil-Service Opportunities

Competitive examinations for the civil-service positions named below will be held on or up to the dates given. For detailed information, write the addresses specified.

SHIP DRAFTSMAN (male), $3.28-$5.04 per diem; examination Apr. 14-15; for vacancy in the Bureau of Construction and Repair, Navy Dept., Washington, D. C., or vacancies as they occur in other positions requiring similar qualifications. Write to the United States Civil Service Commission, Washington, D. C., for Circular No. 210 and Application Form No. 1312.

ELECTRICAL DRAFTSMAN, RADIO (male), $3.52-5.52 per diem; examination Apr. 7-8; for vacancy in the Navy Yard, New York, N. Y., or vacancies as they occur in other positions requiring similar qualifications. Write to the United States Civil Service Commission, Washington, D. C., for Circular No. 239 and Application Form No. 1312.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

ENGINEERS, ARCHITECTS AND DRAFTSMEN wanted. The Kansas City Engineering Agency, 323 Midland Building, Kansas City, Mo.

CORRESPONDENCE COURSES

of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

FOR ENGINEERS

The personal attention of the engineer who prepared these courses is given to all the work submitted by each subscriber and therefore the membership is limited.

Two separate courses are offered, under the following designations,—

STRUCTURAL STEEL DESIGNING
REINFORCED CONCRETE ENGINEERING

These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter taken from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

and save years spent in mis-directed efforts which are a necessary result of trying to acquire experience without the direct aid and assistance of an engineer properly experienced in such work.

Address M. 966, Engineering News

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

CONTRACTORS or others employing laborers, skilled or unskilled. We supply laborers from coast to coast. No order too small or too large. Trial order will convince you. Maurice E. Finn's Labor Agency, largest in New England, 27 Washington St., Boston, Mass.

WANTED

AGENTS AND SALESMEN

ENGINEER with some experience in structural design to sell Winslow's specialized Slide-Rules; simple, direct reading, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

BUSINESS OPPORTUNITIES

ENGINEER'S GRAND OPPORTUNITY—Long-established young contractor with unquestionable reputation and expert knowledge in the economical construction of public and private work and with exceptional ability in securing and executing profitable contracts desires to meet young graduate civil engineer who is willing to learn the contracting and construction line and take an active interest with an investment of from $15,000 to $25,000. B. O. 872, Eng. News.

FOUNDRY AND MACHINE SHOP in Kansas City; established 25 years; doing $100,000 to $125,000 business yearly; 1¼ acres land; brick buildings; located in the center of manufacturing district; have practically a monopoly on architectural castings in this city, and making large amount of machine castings; can make very attractive price and terms. B. O. 38, Eng. News.

COOPER UNION, New York City

The Free Day School of Technical Science offers four year courses in Civil, Mechanical and Electrical Engineering. Entrance examinations in Algebra and Geometry.

Preference given to applicants who have had practical experience in shops, power plants, draughting rooms or field work. Announcements mailed upon application.

Manufacturers Desiring Representation

in Philadelphia and Vicinity

are offered an exceptional opportunity to secure adequate and proper representation.

My qualifications for this include fifteen years' executive and road experience, a wide acquaintanceship with both the wholesale and retail trade in the above territory, a record of success in producing results in the past, and proper facilities and organization for a satisfactory and dignified representation.

Complete proof as to ability to profitably handle their products will be given interested manufacturers upon request.

J. L. KEIR, Manufacturers' Agent PHILADELPHIA
Abbott Building, Broad and Race Streets

For Sale Second Hand Machinery

Rates: Less than 4 insertions 60 cents per line—4 to 11 insertions 55 cents per line—12 or more insertions 50 cents per line.

Equipment Wanted items appear at the end of this list.

ADVERTISERS NAMES are abbreviated in most of these items. Complete names and addresses as follows:

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CARPENTER & Boxley & Herrick, Inc., 4th Ave. and 70th St., B'klyn, N. Y.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095)

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition.—THEO. SMITH & SONS CO., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

4—15 H.P. Abenaque outfits.—SCHMIDT.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed. —GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

CARS

[Standard Gauge]

45—80,000 lb. flat cars, cheap.—WHITNEY.

[36" Gauge]

100 Western 4-yd. dump and 26 Koppel steel concrete.—CARPENTER.

50—4 yd. 1-way So. Baltimore, $50 each. 8—K. & J. 3-yd. 2-way, overhauled, $70 each.—GRIMSHAW.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

DERRICKS

5 traveling, 50 HP. Lambert elec. hoists.—CARPENTER.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

DRILLS

6 Ingersoll, type F-24, and 2 class "C" Little Giant rock drills.—BECKWITH.

Keystone traction No. 3 with placer equipment located at Prescott, Ariz.—L. J. HOHL, 525 Market St., San Francisco, Calif.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.F. Vertical Type Fairbanks with sub-base.—SAMPSON

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33" diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$125 G. & B. 18" Precise Y level, new, $85; $240 H. & Brightly Engrs. transit, arc, good, $137. Guaranteed. 99 others. Rentals, repairs, supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

5—11x16 Vulcan dinkies 1936 to 2039.—CARPENTER.

3—9x14 Porter dinkies 3146 to 3589.—CARPENTER.

20 ton, 11x16" Davenport, built 1907, $1175.—GRIMSHAW.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE.

Foote (cont.) No. 3, 7½ H.P. motor D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day: rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

PILING, SHEET STEEL

165 pcs. Lackawanna 14" arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

5000 pcs. Lackawanna and Carnegie. What are your needs?—GRIMSHAW.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

4500 ft. 2" wrought iron pipe in good condition.—LOUIS B. HARRISON, 220 Broadway, New York, N. Y.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

1 No. 8, 1 No. 9, 1 No. 10 Cameron.—MARINE.

3 Davidson Simplex 9x9x11.—MARINE

1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE.

1 No. 486 Emerson, 4" suc., 3" dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

1—One million gallon, vertical, compound McGowan; only in operation about three years; reason for selling, installation of new equipment. Pump in good condition. Price and full description will be given by S. R. BLAKEMAN, Supt. of City Water & Light Dept., Dyersburg, Tenn.

2 Worthington 1,500,000 gal. Horizontal, Duplex Power, 14" diameter, 10" stroke.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

RAILS

500 tons first-class 56 and 60 lb. rail.—CARPENTER.

40 ton of 35 lb. with fish plates.—PIPE.

20,000 cu.ft. 24" gauge 20 lb. portable track.—SCHMIDT.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1—5 ton Kelley tandem and 1—7 ton Chicago tandem, both rollers have been used but upon two jobs and are in most excellent condition.—Address the AMERICAN NATIONAL BANK, Findlay, Ohio.

Macadam and asphalt roller; also roller renting business located in N. Y. City.—F. S. 33, Eng. News.

10-ton macadam, used very little.—F. S. 31, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

1 Marion Model 60, 1439 with 1 standard and 1 special boom, and 1 Model 75, 2112.—CARPENTER.

⅝ yd. Thew, $2250; ⅝ yd. Bucyrus 14 B, $2500. Both traction and good.—GRIMSHAW.

Marion Model 31 revolving shovel for sale at Ringtown, Schuylkill County, Pa.—BENNETT & RANDALL, Lebanon, Pa.

TRAVELING CRANES

1 15-ton electric 36' 6" span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

TURBINES

2 Houston 44" Vertical, with beveled gears, shafting, etc.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

Wanted

To buy Engineer's transit, level and continuous blueprinting machine. Give complete description.—WALKER-BROWN ENGINEERING CO., 512 Spencer St., Bristol, Va.

2 good five-ton auto trucks. Apply CONNERS BROS. CO., 64 West 88th St., New York, N. Y.

Tandem paving roller. Send lowest cash price and description to W. 32, Eng. News.

FOR SALE

Contractors' Equipment

All in Good Condition. Used One Season.

1 No. 562 Flory Hoist; 1 No. 12 Koehring Mixer on trucks, side loader, Gasoline; 1 No. 24 Koehring Mixer on trucks, side loader, Steam; 1 No. 106 Clyde Hoist; 1 Automatic Concrete Roller Hoist; 3 Centrifugal Pumps 2"-4"-5"; 1 C. H. & E. No. 2 Iron Portable Saw Rig, Gasoline; 1 Engineers' Transit; 1 Y Builders' Level; 18 Pair Swinging Scaffolds; 1 Universal Drafting Machine; 1 2-Ton Kelley Motor Truck; Motors; Pumps; Elevators; and a quantity of small equipment and form lumber.

LIEBEL-BINNEY CONSTRUCTION COMPANY
ERIE, PA.

FOR SALE

Road and Sewer Builders Attention

1 Knox Tractor with 10 ton dump body, same being equipped with ball bearing wheels. In fine condition, excellent for hauling stone.

4 Buffalo Pitts 2 way traction wagons, bottom dump. Capacity 8 ton, excellent condition. Price $150 each.

2 Buffalo Pitts Traction Engines, one equipped with Westinghouse air compressor, to run Jackhamer drills, just the thing for sewer and water ditches.

1 Carson Trench machine with large and small buckets for sewer trenches. Very best of condition.

1 9x16 Farrel Crusher with new manganese jaws, perfect condition, $300.

3 three-horse hitch Watson wagons, bottom dump, capacity 7 ton, Price, $150 each.

1 Buffalo Pitts Steam Roller, good condition, price $1,000.

All of the above can be seen at our yards at Bridgeport, Conn.

The B. D. Pierce, Jr. Company
122 Bank Street Bridgeport, Conn.

RECEIVER'S SALE

Pursuant to the order of the United States District Court for the Northern District of Ohio, the undersigned, James H. Cassidy, as Receiver of The Standard Contracting Company, will offer at public sale to the highest bidder on Wednesday, **April 14, 1915, at 10 A. M.** at the yard of the said company on Whiskey Island, Cleveland, Ohio, all of the property and equipment of the said company of every kind and description, consisting of dredges, tugs, scows, drills, pile drivers, blacksmith equipment, flues, iron, engines and machinery.

JAMES H. CASSIDY,
as Receiver of The Standard Contracting Company.

FOR SALE

Air Reheaters
Blowers and Fans
Buckets
Cars
Car Tipple
Rock Drills
Elevators
Tripods
Drill Columns
Electric Locomotives
Grout Machines
Man Locks
Pile Hammer
Pumps
Saw
Steel Pontoon
Spiral Pipe
Wrought Iron Pipe
Drill Steels

Apply to

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.

Plant and Equipment for Sale

Including locomotives, gondolas, derricks, concrete mixers, rock drills, buckets, pumps, engines, elevators and conveyors. *Ask for new list with revised prices.*

ALABAMA POWER COMPANY,
Birmingham, Ala.

Dredge Pipe For Sale

Pontoon and Land Pipe

20 inches and 22 inches in diameter. Also casks, pontoons, elbows and valves. In good condition, will sell at one-half value. Address,

P. O. Box 27, Rochester, N. Y.

Hydraulic Dredge and Other Machinery For Sale

One—20" Hydraulic dredge, complete with Pontoons, Pipe Line, etc.
One—1½-yard Vulcan Steam Shovel.
One—No. 3½ Keystone Well Drilling Machine.
Seven—12-yard, 2-Way Oliver Dump Cars with Air Brakes.

For Further Information

Address P. O. Box 27, Rochester, N. Y

"Go a Long Way"

toward reducing costs of material handling. That's the general opinion of contractors in regard to

WESTERN AIR DUMP CARS

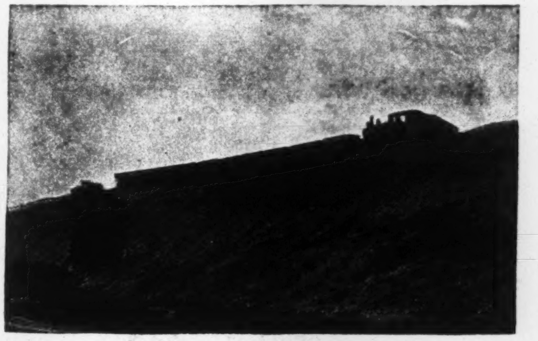
Built in the size you need for your work.

Dump clean—right fast—hold to the track.

The savings they will make in earth and stone handling make them a profitable investment.

Details? Write for Catalog.

Western Wheeled Scraper Co., Aurora, Ill.



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JOHN T. HORTON, M. E.
92 West St., New York

Specialist in Hoisting Equipment

Your Idle Machinery

or plant, or tools for which you have no present use might be sold or rented to some other reader through the medium of a "For Sale or Rent" advertisement in Engineering News.

Rates on Application

Public Sale of Valuable Personal Property

By virtue of the authority vested in the undersigned E. H. Tabler, Sheriff of Berkeley County, West Virginia, by decrees of the Circuit Court of Berkeley County, West Virginia, entered in the chancery causes of: **Marion Steam Shovel Company vs. Sundstrom & Stratton Company, W. J. Gephart vs. Sundstrom & Stratton Company, Daniel Rossi vs. Sundstrom & Stratton Company, Victor Johnson vs. Sundstrom & Stratton Company, W. B. Hinton vs. Sundstrom & Stratton Company, Lee M. Bender vs. Sundstrom & Stratton Company, Lord & Lord vs. Sundstrom & Stratton Company,** and orders entered in the law matters of: **Marion Steam Shovel Company vs. Sundstrom & Stratton Company, Pedro Cordez vs. Sundstrom & Stratton Company,** he will offer for sale at

Public Auction

at or near **Bedington, Berkeley County, West Virginia,** on **Tuesday, April 27, 1915,** commencing at 10:30 o'clock a.m., the following personal property belonging to **Sundstrom & Stratton Company,** and involved in the said proceedings:

1 Marion Steam Shovel—Shop No. 906, Lot Chains, at Bedington.
1 Dinkey Engine No. 24—Sundstrom & Stratton Co., 90 West Street, New York City.
1 Dinkey Engine No. 23—Sundstrom & Stratton Co., 90 West Street, New York City.
1 portable boiler and air compressor; 39 trucks.
1 Deane Steam Pump, No. 33963; size 7½ x 6.6.
1 Deane Steam Pump, No. 40450; size 6 x 6.6.
2 Stationary Boilers.

And commencing at 1:30 o'clock in the afternoon of the same day, at or near CUMBO, BERKELEY COUNTY, WEST VIRGINIA, he will offer for sale, the following described personal roperty, involved in this litigation:

1 Marion Shovel—Model 75, Shop No. 2061.
1 Marion Shovel—Model 60, Shop No. 1330.
1 Marion Shovel—Model 80, Shop No. 787.
1 Marion Shovel—Model 80, Shop No. 821.
1 Portable Engine—Nagle Engine & Boiler Works, Erie, Pa.
1 Upright Boiler for Stationary engine.
1 lot iron pipe.
1 Portable Concrete Mixer.
2 Concrete Buckets.
1 Hoisting Engine—"Lidgerwood" make.
1 Dinkey Engine—No. 11, made by H. K. Porter & Co.; Shop No. 3567.
1 Dinkey Engine—No. 20, made by Amer. Locomotive Co.; No. 46725.
1 Dinkey Engine—No. 21, made by Amer. Locomotive Co.; No 46726.
1 Dinkey Engine—No. 12, made by Baldwin Locomotive Wks.; No. 28326.
1 Dinkey Engine—No. 13, made by Baldwin Locomotive Wks.; No. 28271.
1 Dinkey Engine—No. 14, made by Baldwin Locomotive Wks.; No. 23235.
1 Dinkey Engine—made by H. K. Porter & Co.; 3566.
1 Dinkey Engine—No. 15, made by H. K. Porter & Co.; No. 4013.
1 Hoisting Engine—"Lidgerwood" made.
1 Upright Boiler.
86 Dump cars.
5 Watson Dump Wagons.
Equipment Blacksmith Shop.
1 Portable Engine, "M81" over door.
1 Concrete Mixer, near subway.
1 Wooden Derrick.
1 Lot Iron Pipe, near shovels.
1 Lot Iron Pipe, near subway.
2 Concrete Buckets, near subway.
2 Upright Boilers; near subway.
Lot (nine drills; drill points, tools and blacksmith equipment, irons, etc., in tar paper house; lot jacks, drills, repairs and equipment in board house near subway.
1 Deane Steam Pump, No. 3544.
1 Steam Pump (no number). One Deane Steam Pump.
1 lot brass fittings, parts to shovels, engines, etc., stored in shanty.

The property at Bedington will be offered separately and then it will be offered as a whole; and the property at Cumbo will be offered separately and then offered as a whole. By subsequent order entered March 25th, 1915, in the case of the Marion Steam Shovel Company vs Sundstrom and Stratton Company, the Sheriff is directed in executing the order of sale to require from all bidders bidding upon the two lots of property as a whole to deposit with the Sheriff before making any bid, a certified check for $500.00, which check will be returned to the bidder in case he is unsuccessful, or if successful, to be deposited and applied upon the purchase money.

TERMS OF SALE—CASH

No property to be removed until settled for and terms complied with. Reasonable opportunity will be afforded the successful bidder to comply with the terms of sale.

E. H. TABLER,
SHERIFF OF BERKELEY COUNTY,
WEST VIRGINIA.

Persons desiring to attend this sale may come to Martinsburg, West Virginia, over the B. & O., or Pennsylvania Railroads, and then reach the places of sale by automobile or local train.

It Digs—
It Carries—
It Dumps—
The Maney Scraper

It's a combination scraper and dump wagon which does away with the usual wheeler and dump man as it only requires one man to operate it. On railroad, highway, levee or other excavating and grading work it allows you to reduce the number of men and teams one-half and still move the same amount of dirt in the same time.

The saving is obvious. Write for complete details and price list today.

Baker Mfg. Co.,
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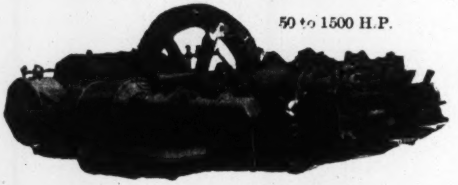
For Driving Generators

Steady, continuous running is essential



The Snow Oil Engine

runs evenly and quietly and is adapted to very close regulation.

Other advantages are: cheapest fuel, operation without auxiliaries, ready accessibility of all parts, long life—in short, the qualities of the Snow Crude Oil Engine are actually summarized by the term

"Cheapest Source of Power."

Our Bulletin S120-19 tells about it in detail.

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Branch Offices in all Principal Cities

S.146.2

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Deep Well Pumping Systems installed complete.

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STEAM
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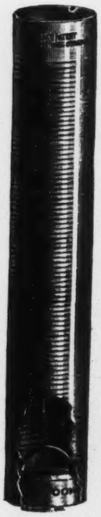

Cook Patent Brass Tube Well Strainer

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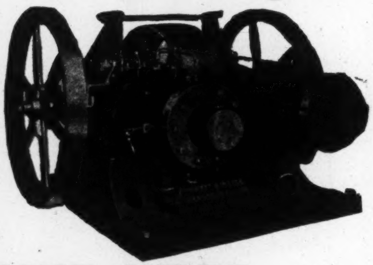
The Mietz & Weiss Oil Engines

Stationary and Marine Types. 2-400 H.P.

Over 300,000 H.P. in operation. Operate on kerosene, fuel oil, distillate and crude oil. Safe, simple, reliable, durable and economical. In use by U. S. Government, foreign governments and municipalities for lighting and pumping.

Suitable for all power purposes. Send for Catalog.



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Contractors for diamond drilling We make a specialty of prospecting soft coal and cement properties.

TRADE
Irving's Subway Gratings
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Pat. Nov. 26, 1912 **200,000 feet in use**

Irving Iron Works Company, Engineers and Contractors
Manufacturers of Structural Steel and Ornamental Iron
Long Island City, City of New York.

Contracts to Be Let

Bids received until Apr. 20, 1915.

Water Pipes, Valves, etc.

Sacramento, California, March 18, 1915.

Sealed bids or proposals for the furnishing and installing of riveted steel and cast iron water pipes, valves, hydrants and other appurtenances, in the streets, alleys and rights of way in the City of Sacramento, Sacramento County, California, for the City of Sacramento and endorsed, "Proposal for the Furnishing and Installing of Riveted Steel and Cast Iron Water Pipes for Sacramento, California," will be received at the office of the City Clerk, City Hall, Sacramento, Calif., between the hours of 10:30 and 11:30 A.M., Tuesday, the twentieth day of April, 1915, and will be publicly opened and read in the Council Chamber, City Hall, Sacramento, on Tuesday, the twentieth day of April, 1915, after 11:30 o'clock A.M.

All bids shall be made upon the blank form of proposal contained in a pamphlet with the contract, specifications and drawings, to be obtained at the office of the City Clerk, City Hall, Sacramento, Calif.

Each proposal shall be accompanied by a certified check, made payable to the City Clerk, amounting to (10) per cent. of the higher alternative bid. A liability bond amounting to fifty (50) per cent and a contract guaranty bond amounting to ten (10) per cent. of the contract price will be required of the successful bidder.

The funds for payment on said work must be obtained from the sale of Sacramento Water Mains Bonds bearing interest at the rate of four and one-half (4½) per cent. per annum, said bonds being on hand and unsold. These bonds must be sold and the money required for all work which is estimated may exceed the bid by at least fifteen (15%) per centum must be deposited in the City Treasury before the contract is finally signed.

Some of the More Important Elements of the Work are as Follows:

126,000 cubic yards of excavation,
126,000 cubic yards of backfill,
417,920 linear feet of cast iron pipe, four inches to sixteen inches in size.
39,990 linear feet of riveted steel pipe, twenty, twenty-four, thirty, and thirty-six inches in size,
758 hydrants,
1,472 valves four inches to thirty inches.
220 tons cast iron special fittings,
22,084 square yards of macadam, asphalt, Asphalt Macadam, and basalt blocks pavement to be removed and replaced.

The above quantities are approximate and given merely for the guidance of prospective bidders and are not guaranteed as correct.

Alternative bids are requested, (a) for the materials and work complete in every detail, and (b) for the material and work complete with the exception of freight charges on pipe, special fittings, hydrants and valves.

The City Commission reserves the right to increase or decrease the amount of any class or portion of the work or material as they deem necessary or proper and to reject any or all proposals or to accept any proposal, if they deem it to the interest of the City of Sacramento so to do.

It is the intention to let the work as a whole and not in parts.

A deposit of five ($5.00) dollars will be required for each copy of the pamphlet containing the complete contract documents which may be obtained from the undersigned.

M. J. DESMOND, City Clerk.

◆

PROPOSALS FOR A GUARD HOUSE AND BAKERY. Office, Depot Quartermaster, El Paso, Texas, March 29, 1915.—Sealed proposals for the construction, plumbing, heating, electric wiring and fixtures, of a guard House and Bakery, at Fort Bliss, Texas, will be received in this office until 11:00 A.M., April 30, 1915, and then opened. Information furnished on application. Applications for plans, etc., should be accompanied by a certified check for $10.00 to insure their return. Envelopes containing proposals should be indorsed "Proposals for Guard House and Bakery, Fort Bliss, Texas," and addressed Major William Elliott, Quartermaster Corps, U. S. Army.

Bids received until Apr. 19, 1915.

Notice to Water-works Tunnel Contractors

OFFICIAL NOTICE NO. 23

PUBLISHED BY AUTHORITY OF THE COMMON COUNCIL OF THE CITY OF MILWAUKEE.

OFFICE OF THE DEPARTMENT OF PUBLIC WORKS.

Milwaukee, Wisconsin.

Sealed proposals will be received at this office until Monday, April 19th, 1915, at 10:30 o'clock A.M., for furnishing all materials and doing all the work necessary and required for constructing the Shore Tunnel and all shafts of the Linwood Avenue Intake on the western shore of Lake Michigan, in the City of Milwaukee.

The work to be done is included in one contract. It embraces the construction of a concrete lined tunnel and the necessary shafts, on the western shore of Lake Michigan, between the North Point Pumping Station and the Shore Shaft of the Linwood Avenue Intake Tunnel, or between the lines X and Y as shown on Sheet Number 1 of the plans. It requires the construction of approximately: Five thousand six hundred and eighty (5,680) lineal feet of concrete lined tunnel, nine (9) feet in internal diameter, and the necessary number of shafts, all as shown upon the plans and described in the specifications, now on file in the office of the City Engineer.

Bidders will submit prices as described in "Instructions to Bidders."

The time allowed for completing the contract shall be three hundred and fifty-five (355) working days (working days meaning such as are particularly described in the Contract).

The lowest competent bidder will be awarded the Contract and will be required to enter into a contract with sureties as required by law, which contract contains a bond with penal sum of 25% of the estimated cost of the work—being in this case $57,000.00.

Bidders are required to furnish bid bonds in the penal sum of $68,400.00, or in lieu thereof the bidder may deposit with the Commissioner of Public Works the sum of $34,200.00 in money or certified bank check, payable to the Commissioner of Public Works.

In case bonds are submitted with bids, local bondsmen or a surety company, authorized to do business in Wisconsin, will be required, said bond to be approved by the City Attorney as to form and execution before being presented with bid to the Commissioner of Public Works.

Specifications and blank forms of proposals can be obtained, and plans examined, at the office of the City Engineer.

The prices must be written in the proposal and also stated in figures. In case of variation, the written prices will prevail.

All moneys deposited will be returned to unsuccessful bidders on award of contract and to successful bidder when contract is entered into. Bid bonds will be cancelled under same conditions.

The Commissioner of Public Works reserves the right to reject any or all bids.

Bidders are required to submit with their proposals, the method they intend to adopt in carrying out this work.

Full sets of plans will be sent to any Contractor desiring to bid, upon the receipt of Ten ($10.00) Dollars.

Signed, FRED G. SIMMONS,
Commissioner of Public Works.

Countersigned,
LOUIS M. KOTECKI, Comptroller.

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PROPOSALS FOR WIRE, WIRE STRAND, STAPLES AND CLIPS.—Mississippi River Commission, First and Second Districts, Custom House, Memphis, Tennessee, March 20, 1915.—Sealed proposals for furnishing and delivering about 725,000 lbs. galvanized wire, silicon bronze wire, wire strand, and staples, and 36,000 wire rope clips, will be received at this office until 12 m., April 10, 1915, and then publicly opened. Information furnished on application. E. M. MARKHAM, Maj., Engrs.

Bids received until Apr. 21, 1915.

Water-works Improvements

Durham, N. C.

Sealed Proposals will be received by the Mayor and Board of Aldermen of the City of Durham, N. C., at the City Hall, until 3 P.M. April 21st, 1915, for "Water Works Improvements," consisting of:

River Pumping Station, City Pumping Station, Filter House and Concrete Clear Water Well, Coagulating Basin, Filter Equipment for four units of ¾ million gallons each, Laying nine miles 20-inch cast iron pipe, Two Radial Brick Chimneys.

Proposals must be marked "Proposal for Water Works Improvements."

All proposals must be upon blank forms provided in Proposal and Contract.

Each proposal must be accompanied by a certified check for not less than five per cent. of the amount of the bid, as an evidence of good faith.

Specifications, Proposal and Contract forms and plans will be on file in the office of the City Engineer in Durham or will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by the payment of twenty-five dollars to insure their return in good condition within thirty days after the date set for receiving proposals.

The right is reserved to reject any or all proposals.

W. J. BROGDEN, Mayor,
GEO. W. WOODWARD, Clerk.

Engineer—
GILBERT C. WHITE, Charlotte, N. C.

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Bids received until Apr. 19, 1915.

Water-works Construction

Peoria Heights, Ill.

Sealed bids will be received, for the construction of a Water Works System, by the Board of Local Improvements of the Village of Peoria Heights, Illinois, until the 19th day of April, A.D. 1915, at the hour of 8 P.M., at the Village Hall in said Village of Peoria Heights, Illinois, at which time and place said bids will be publicly opened.

The work will include:

a. 85,085 lineal feet of cast iron pipe with specials.
b. 98 Hydrants, 69 valves and 69 valve boxes.
c. Two (2) Centrifugal Pumps directly connected to Motors, and electric controls for same.
d. Construction of Pumping Station.
e. Construction of Steel Tower and 50,000 gal. Tank.

Proposals must be made upon blanks furnished by said Board and in compliance with the instructions thereto attached, and must be accompanied by cash or by check payable to the order of the President of said Village in his official capacity, certified by a responsible bank, for an amount not less than fifteen (15) per cent. of the aggregate of the proposal.

The right is reserved to reject any and all bids, as authorized by law.

Plans and Specifications may be seen at both addresses given below, or may be obtained by depositing five (5) dollars for each set, said deposits to be returned upon the return of plans and specifications in good order. Specifications used in making a bid will be considered as returned.

For further particulars address E. J. Brayton, Village Clerk, Peoria Heights, Illinois, or Chas. H. Dunn, Civil Engineer, 29 and 30 Arcade Building, Peoria, Illinois.

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Bids received until Apr. 27, 1915.

Earth Levee

Augusta, Ga.

SEALED PROPOSALS, ADDRESSED to the City Council of Augusta, Ga., will be received by the River and Canal Commission at its office, 747 Broad Street, Augusta, until 4 P.M., Tuesday, April 27th, for furnishing all labor and outfit and constructing complete an earth levee along the Savannah River below the city of Augusta.

The work is divided into two contracts known as sections Nos. 5 and 6. There will be approximately a half-million cubic yards in each section. A certified check for $500 must be deposited with bid as a guarantee of good faith. A bond of $20,000.00 on each section will be required from the successful bidders. Payments will be made in cash on monthly estimates.

The right is reserved to reject any and all bids. Plans and specifications may be had on application to the undersigned.

NISBET WINGFIELD, Chief Engineer.

Bids received until Apr. 19, 1915.

Albany County Court House

Albany, N. Y.

Sealed proposals will be received at the office of the Clerk of the Board of Supervisors, City Hall, Albany, N. Y., until 12 o'clock noon, April 19, 1915, for furnishing and installing of the Steel furniture of a new Court House for the County of Albany, N. Y., situated on the southerly side of Columbia Street, between Lodge and Eagle Streets, in the City of Albany, N. Y.

Plans and specifications may be seen at the office of the Clerk of the Board at City Hall, Albany, N. Y., or at the office of Hoppin & Koen, Architects, 244 Fifth Avenue, New York City, after March 31, 1915.

Contractors desirous of obtaining copies of the plans and specifications for the purpose of estimating may do so by applying either in person or in writing to the above architects, who will loan them copies of the specifications and give them an order on a blue print firm, to whom the original tracings will be loaned. Upon receipt of such order a set of prints will be immediately forwarded to Contractor, who will pay printer for cost of prints.

No refund will be made for return of prints.

Dated March 31, 1915.

JOHN F. HYATT,
THOMAS WAREING,
EDWARD F. DEMPSEY,
NELSON BOYD,
FRANCIS VROOMAN,
Committee of Public Buildings of Albany County Board of Supervisors.

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Bids received until Apr. 19, 1915.

Albany County Court House

Albany, N. Y.

Sealed proposals will be received at the office of the Clerk of the Board of Supervisors, City Hall, Albany, N. Y., until 12 o'clock noon, April 19, 1915, for furnishing and installing the finish of the Special Rooms of a new Court House for the County of Albany, N. Y., situated on the southerly side of Columbia Street, between Lodge and Eagle Streets, in the City of Albany, N. Y.

Plans and specifications may be seen at the office of the Clerk of the Board at City Hall, Albany, N. Y., or at the office of Hoppin & Koen, Architects, 244 Fifth Avenue, New York City, after March 31, 1915.

Contractors desirous of obtaining copies of the plans and specifications for the purpose of estimating may do so by applying either in person or in writing to the above architects, who will loan them copies of the specifications and give them an order on a blue print firm, to whom the original tracings will be loaned. Upon receipt of such order a set of prints will be immediately forwarded to Contractor, who will pay printer for cost of prints.

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FRANCIS VROOMAN,
Committee of Public Buildings of Albany County Board of Supervisors.

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Bids received until Apr. 12, 1915.

Notice to Bridge Contractors

Cumberland, Md.

Plans and Specifications, together with bids for construction of the Market Street Bridge, over Wills Creek, will be received up to 9:30 a.m. Monday, April 12th, 1915, by the Mayor and City Council of Cumberland, Md.

Proposition 1. For Concrete arch of twin spans; to be 134′ 6″ between abutments; Driveway 22′ 0″, two sidewalks 6′ 0″ each, grade of finished driveway above bed of Creek 20′ 0″.

Proposition 2. For steel bridge, ends to rest on present abutments, clear span 134′ 6″, with a centre pier allowed.

For further information and blue print of present situation, old bridge having been removed, apply to office of City Engineer.

The right is reserved to reject any and all bids if not deemed satisfactory.

JAMES P. GAFFNEY, City Engineer.

Bids received until May 15, 1915.

Pumping Engine

Binghamton. N. Y., March 26, 1915.

The Board of Water Commissioners of the City of Binghamton, New York, will receive sealed proposals until ten o'clock A.M., on the fifteenth day of May, 1915, for furnishing and installing complete:

One (1) Horizontal Cross-Compound High Duty Crank and Flywheel Pumping Engine of 10,000,000 gallons daily capacity.

Proposals must include all piping necessary within the engine room walls, together with such gauges, revolution counters, tools and attachments as are generally furnished to constitute a complete and first-class pumping plant of this capacity.

In order to receive consideration, proposals must be accompanied by a certified check made payable to the Board of Water Commissioners of Binghamton, N. Y., or a bond of some approved trust company and acceptable to the Board and in their favor in the sum of Two Thousand Five Hundred ($2,500) Dollars, which amount shall be forfeited to the above Board as representatives of the City of Binghamton without recourse by the company or person to whom an award of contract shall be made in case such company or person shall fail to enter into a contract with the city within fifteen (15) days after having been notified of such award.

Parties tendering proposals must file with such proposals a set of full detailed specifications which shall describe in a comprehensive manner the different parts of the engine, giving sizes and dimensions of the same, and also the name of the material from which parts are to be constructed.

There must also be furnished with all proposals detailed blue prints or drawings sufficient for the Board and its Engineer to easily understand the construction and working parts of the engine proposed.

The time necessary to construct and install complete the Pumping Engine proposed must be specifically stated, as a forfeit will be exacted in case the time limit named in the contract is exceeded.

The right to reject any or all proposals or to award a contract in such a manner or to such parties as may be deemed for the best interests of the City of Binghamton is reserved by the Board of Water Commissioners.

Specifications may be had upon application to the secretary.

JOHN D. DAVIDSON, Secretary,
Binghamton, N. Y.

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Bids received until May 5, 1915.

Steam Turbine-Driven Centrifugal Pump

Kansas City, Mo.

SEALED PROPOSALS will be received by the Purchasing Agent of Kansas City, Missouri, at the office of the Purchasing Agent, Second Floor, City Hall, until two o'clock p.m. of Wednesday, May 5th, 1915, for the designing, construction, delivery and erection of a steam turbine, reduction gear, centrifugal pumping unit of a capacity to pump continuously twenty (20) million U. S. gallons of water per twenty-four (24) hours, against a total combined head of three hundred and sixty (360) feet and steam pressure of one hundred and sixty-five (165) pounds per square inch at throttle; together with all machinery, tools and appurtenances necessary; all in accordance with the plans and general specifications on file in the office of the Chief Engineer of the Water Department.

Each bidder shall deposit with the City Comptroller a certified check in the amount of Seven Hundred and Fifty Dollars ($750.00), payable to the City Comptroller of Kansas City, Missouri, and accompany his bid with the Comptroller's receipt therefor.

The certified check referred to in the Advertisement shall be submitted by each bidder as a guaranty that the bidder will, within ten (10) days after receiving the award of a contract, file with the City a satisfactory bond to the amount of Twenty-five Thousand Dollars ($25,000.00) and will execute the contract.

The Board of Fire and Water Commissioners does not bind itself to accept the lowest or any bid offered, and reserves the right to reject any and all bids and to waive any informality when it seems to be to the interest of Kansas City, Missouri, to do so.

J. P. LANGAN, Purchasing Agent.
BURTON LOWTHER, Chief Engineer.

Bids received until Apr. 12, 1915.

Barn and Vegetable Cellar

Bath, N. Y.

Sealed proposals for construction of Barn and Vegetable Cellar for the New York State Soldiers' and Sailors' Home, Bath, N. Y., will be received by Hon. Joseph A. Goulden, President, Board of Managers, New York State Soldiers' and Sailors' Home, Bath, N. Y., until 11 o'clock A.M. on April 12, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of $300.00 for the Barn and $100.00 for the Vegetable Cellar. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. (50%) of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specification No. 2230. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York State Soldiers' and Sailors' Home, Bath, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York for each set of plans and specifications, which check will be returned when plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

WM. H. NICHOLS, Secretary.

Dated
Bath, N. Y., March 23, 1915.

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Bids received until Apr. 20, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Tuesday, April 20th, 1915, for the repair of contracts in the following counties:

Albany (one contract—resurfacing 1.9); Broome (one contract—surface treatment 5.73); Chenango (one contract—surface treatment 1.07); Clinton (one contract—resurfacing 7.34); Delaware (one contract—surface treatment 1.00); Essex (one contract—resurfacing 3.64); Onondaga, three contracts (resurfacing—1.72, 2.21, 2.50); Oswego, two contracts (resurfacing—3.09, 2.09); Otsego (one contract—surface treatment 9.07); Rensselaer (one contract—resurfacing 2.46); Saratoga (one contract—resurfacing 3.79); Schoharie (one contract—surface treatment 8.49); Seneca (one contract—resurfacing 5.72); Sullivan (one contract—resurfacing 1.50); Suffolk (one contract—resurfacing 3.82); Warren (one contract—resurfacing 4.12); Wayne (one contract—surface treatment 7.01); Wyoming (one contract—resurfacing 1.28).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

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Bids received until Apr. 23, 1915.

Combined Sewer System

Kenosha, Wisconsin.

Sealed proposals will be received at the office of the Street Assessment Committee, in the City Hall of the City of Kenosha, Wisconsin, until the 23rd day of April, 1915, at 2:00 P. M., for 1500 ft. of 84"; 2700 ft. of 66"; 1200 ft. of 36"; 835 ft. of 30"; 1165 ft. of 24"; 470 ft. of 22"; 890 ft. of 20"; 980 ft. of 18"; 2980 ft. of 15" and 2250 ft. of 12" sewer, vitrified tile, vitrified segmental block, reinforced concrete pipe, concrete or brick.

Plans, specifications and proposal blanks may be had at the office of the City Engineer.

The right to reject any or all bids is reserved.

B. C. BRENNAN, City Engineer.

Bids received until Apr. 20, 1915.

Section 2, River Road

Mercer County, N. J.

Sealed proposals will be received by the Board of Chosen Freeholders of the County of Mercer, at their place of meeting, Court House, Trenton, N. J., on Tuesday, April 20, at 2:30 p.m., and then opened—

For the furnishing of materials, tools, machinery and labor necessary for the efficient and proper grading of the roadway, side ditches, side banks, and rolling, spreading and laying of road metal, and all the work of construction incidental thereto, for the improvement of a road known as "Section 2, River Road," with bituminous concrete. Said road beginning at station 100, plus 60, near Titusville, in the Township of Hopewell, and extending to the Hunterdon County line at station 252, plus 50.

As a guarantee of good faith, and to secure the County of Mercer from any loss by failure to comply with the terms of the bid, all bidders shall accompany their bid with a certified check, payable to the order of Joseph H. Black, county collector, in the sum of one thousand ($1,000) dollars, or like amount in cash, as a guarantee that if the contract shall be awarded to him he will, within thirty (30) days, execute an agreement in writing with the Board of Chosen Freeholders of the County of Mercer to perform the work according to the plans and specifications. Upon failure by the contractor to enter into said agreement with the Board of Chosen Freeholders, said certified check or cash shall be forfeited and considered as liquidated damages.

All bids must be enclosed in a sealed envelope addressed to the Board of Chosen Freeholders of Mercer County, New Jersey, and bearing on the outside the name and address of the bidder. The bid must be delivered at the Court House, Trenton, N. J., on or before April 20, 1915, at 2:30 p.m., and shall be plainly written on the outside of the envelope, "Proposal for Section 2, River Road."

No proposal will be received or opened unless these conditions are complied with on the part of the bidder.

The check of the successful bidder will be held until the contract is executed, together with a bond for a sum not less than the estimated cost of the road when completed, conditioned for the faithful performance of the contract in accordance with the plans and specifications, and approved by the Board of Chosen Freeholders or its committee.

Plans and specifications are on file in the office of Theodore Tobish, county engineer, Court House, Trenton, N. J., and at the office of the Commissioner of Public Roads, State House, Trenton, N. J., and may there be examined.

The form of proposal on file with the said county engineer must be the form used in making bids.

The right is reserved to reject any or all bids, or to waive any defect or informality in any bid, if deemed in the interest of the county to do so.

JOHN J. POWER, Director.

Bids received until Apr. 12, 1915.

Asphalt Road Oil

Montclair, N. J.

Sealed bids will be received by the Town Clerk of the Town of Montclair for furnishing asphalt road oil containing approximately forty-five (45%) per cent. of asphalt for use in oiling the streets in Montclair during the year of 1915.

Bids will be received both for furnishing oil in tank car lots, f.o.b. Montclair, or applied to the streets of the Town on a square yard basis, all according to specifications on file in the office of Edgar S. Closson, Town Engineer and there to be seen. Bids to be acceptable must be submitted on the proposal blank furnished by the Town; must be accompanied by a certified analysis of the oil; a certificate of the source of supply and method of manufacture; and a one quart sample of the oil which it is proposed to furnish.

The estimate of the amount of oil required is 130,000 gallons and the number of square yards requiring oiling is estimated at 800,000.

Each bid must be accompanied by a forfeit of three hundred and twenty-five ($325) dollars to insure the signing of the contract and bond by the successful bidder within two weeks after the award shall have been made.

All bids must be in by Monday, April 12th, 1915, at 8 p.m. at the Town Clerk's office, Municipal Building, Montclair, N. J.

The Council reserves the right to award the contract to the lowest bidder or bidders who furnish satisfactory evidence of their ability to carry out the contract as regards time, quality of work to be done and materials furnished. The contract will not necessarily be awarded to the lowest bidder. The quality of oil furnished together with its price will both receive consideration in making the award.

HARRY TRIPPETT, Town Clerk.

Bids received until Apr. 20, 1915.

Section 1, River Road

Mercer County, N. J.

Sealed proposals will be received by the Board of Chosen Freeholders of the County of Mercer, at their place of meeting, Court House, Trenton, N. J., on Tuesday, April 20, at 2:30 p.m., and then opened—

For the furnishing of materials, tools, machinery and labor necessary for the efficient and proper grading of the roadway, side ditches, side banks, and rolling, spreading and laying of road metal, and all the work of construction incidental thereto, for the improvement of the road known as "Section 1, River Road," with concrete. Said road beginning at Washington's Crossing station, minus 5 plus 0, in the township of Hopewell, and ending at station 100, plus 60.

As a guarantee of good faith, and to secure the County of Mercer from any loss by failure to comply with the terms of the bid, all bidders shall accompany their bid with a certified check, payable to the order of Joseph H. Black, county collector, in the sum of one thousand ($1,000) dollars, or like amount in cash, as a guarantee that if the contract shall be awarded to him he will, within thirty (30) days, execute an agreement in writing with the Board of Chosen Freeholders of the county of Mercer to perform the work according to the plans and specifications. Upon failure by the contractor to enter into said agreement with the Board of Chosen Freeholders, said certified check or cash shall be forfeited and considered as liquidated damages.

All bids must be enclosed in a sealed envelope addressed to the Board of Chosen Freeholders of Mercer County, New Jersey, and bearing on the outside the name and address of the bidder. The bid must be delivered at the Court House, Trenton, N. J., on or before April 20, 1915, at 2:30 p.m., and shall be plainly written on the outside of the envelope "Proposal for Section 1, River Road."

No proposal will be received or opened unless these conditions are complied with on the part of the bidder.

The check of the successful bidder will be held until the contract is executed, together with a bond for a sum not less than the estimated cost of the road when completed, conditioned for the faithful performance of the contract in accordance with the plans and specifications, and approved by the Board of Chosen Freeholders or its committee.

Plans and specifications are on file in the office of Theodore Tobish, county engineer, Court House, Trenton, N. J., and at the office of the Commissioner of Public Roads, State House, Trenton, N. J., and may there be examined.

The form of proposal on file with the said county engineer must be the form used in making bids.

The right is reserved to reject any or all bids, or to waive any defect or informality in any bid, if deemed in the interest of the county to do so.

JOHN J. POWER, Director.

Bids received until Apr. 12, 1915.

Resurfacing Asphalt

Montclair, N. J.

Sealed bids will be received by the Town Clerk of the Town of Montclair for furnishing asphalt for use in resurfacing streets in the Town of Montclair during 1915.

Bids will be required to state the price per gallon f.o.b. Montclair in tank cars or in barrels, all according to the specifications on file in the office of Edgar S. Closson, Town Engineer and there to be seen.

Bids to be acceptable must be submitted on the proposal blank furnished by the Town; must be accompanied by a certificate of the source of supply and method of manufacture; a certified analysis of the asphalt; and a one pound sample of the asphalt which it is proposed to furnish.

The estimate of the amount of asphalt required is 50,000 gallons.

Each bid must be accompanied by a certified check for $250.00 to insure the signing of the contract and bond by the successful bidder within two weeks after the award shall have been made.

All bids must be in by Monday, April 12th, 1915, at 8 P.M. at the Town Clerk's office, Municipal Building, Montclair, N. J.

The Council reserves the right to award the contract to the lowest bidder or bidders who furnish satisfactory evidence of their ability to carry out the contract as regards time, quality of work to be done and materials furnished. The contract will not necessarily be awarded to the lowest bidder. The quality of asphalt furnished together with its price will both receive consideration in making the award.

HARRY TRIPPETT, Town Clerk.

Bids received until Apr. 20, 1915.

Trenton-Allentown Turnpike

County of Mercer, State of New Jersey.

Sealed proposals will be received by the Board of Chosen Freeholders of the County of Mercer, at their place of meeting in the Court House, in the City of Trenton, County of Mercer, N. J., Tuesday, April 20, 1915, at 2:30 P.M., and then opened:

For furnishing all material, tools, machinery and labor necessary for the efficient and proper rolling, spreading and laying of a bituminous concrete surface, and all other work incidental thereto, on a certain macadam highway in Mercer County; known as the Trenton-Allentown Turnpike, beginning at or near Bromley Inn and extending to Mercerville.

As a guarantee of good faith and to secure the County of Mercer from any loss by failure to comply with the terms of said bid, all bidders shall accompany their bid with a certified check for $1000, payable to the order of Joseph H. Black, County Collector, or a like amount in cash. Upon the failure by the contractor to enter into an agreement in writing to perform the work according to the specifications, said certified check or cash shall be forfeited and considered as liquidated damages.

All bids containing proposals must be enclosed in sealed envelopes addressed to the Board of Chosen Freeholders of the County of Mercer, N. J., and bearing on the outside the name and address of the bidder.

No proposal will be received or opened until these conditions are complied with on the part of the bidder.

The check or cash of the successful bidder will be held until the contract is executed together with a bond approved by the Board of Chosen Freeholders or its committee in an amount not to exceed the full amount of the bid, conditioned for the faithful performance of the contract in accordance with the specifications.

Specifications are on file at the office of Theodore Tobish, County Engineer, Court House, Trenton, New Jersey, and may be there examined.

The form of proposal on file with said Engineer must be the form used in making bids.

The right is reserved to reject any or all bids or to waive any defect or informality in any bid should it be to the interest of the county to do so.

JOHN J. POWER, Director.

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Bids received until Apr. 23, 1915.

Thomas Indian School

Iroquois, N. Y.

Sealed proposals for Construction Work for Silo and Addition to Dairy Barn and for Construction, Heating, Plumbing and Drainage and Electric Work for Ice House, Dairy Room and Cold Storage, at the Thomas Indian School, Iroquois, N. Y., will be received by Hon. William Hunt, President, Board of Managers, Thomas Indian School, Iroquois, N. Y., until twelve o'clock noon on April 23, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of $125.00 for Silo and Addition to Dairy Barn; in the sum of $250.00 for Construction Work for Ice House, Dairy Room and Cold Storage; in the sum of $40.00 for Heating Work for Ice House, Dairy Room and Cold Storage; in the sum of $45.00 for Plumbing and Drainage for Ice House, Diary Room and Cold Storage, and in the sum of $10.00 for Electric Work for Ice House, Dairy Room and Cold Storage. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. (50%) of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specifications Nos. 2220, 2235, 2243, 2244 and 2245. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Thomas Indian School, Iroquois, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York for each set of plans and specifications, which check will be returned when plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

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FORT MONROE, Va., Mar. 17, 1915.—Sealed proposals will be received here until 12 M., Apr. 15, 1915, for furnishing material and labor required in Constructing Alterations of Casemates and Addition to Quartermaster Stables, including Plumbing and Electric Lighting. Information furnished on application to QUARTERMASTER.

Bids received until Apr. 16, 1915.

Street Paving

Scottdale, Pa.

Sealed proposals will be received by the undersigned for the Borough of Scottdale, Pa., until 7 o'clock P.M. Friday, April 16th, 1915, for the Grading, Curbing and Paving of Pittsburg Street from Vine Street to the Borough Limits, Hickory Street from the north side of Market Street to the south side of Arthur Avenue, Grove Street from the north side of Walnut Avenue to the south side of Market Street, Grove Street from the north side of Loucks Avenue to the south side of Arthur Avenue, Brooks street from the west side of Chestnut street to the East side of Hickory Street, for the following approximate quantities:

	Pittsburg Street		Hickory Street	Grove Street	Grove Street	Brooks Street
Grading	1143	cu.yds.	1633	425	288	525
Curbing	2380	lin.ft.	2731	475	475	465
Paving Standard Block		Sq.yds.	3315	612	612	580
Paving Hillside Block	3360	Sq.yds.	711	...	...	...
Backing Stone	159	Lin.ft.	159	30	30	30
Sewer Inlets	2		4	...	...	....

Bidder shall name make of Block and bid on using same.

Maker of accepted Block will be required to furnish surety bonds in the sum of two thousand dollars ($2000.00) for Pittsburg street, two thousand five hundred ($2500.00) dollars for Hickory street, two hundred fifty ($250.00) dollars for each section of Grove street and two hundred fifty ($250.00) for Brooks street, and guarantee for five years to the successful bidder and by him to be assigned to the Borough.

Each bidder shall furnish certified check for five hundred ($500.00) dollars payable to the Borough Treasurer, with bid as guarantee. The one check will be good for all streets.

Plans and specifications may be seen at the Borough Engineer's Office in the Borough Building, Scottdale, Pa.

Bids must be addressed to F. M. Newcomer, Secy., and endorsed Pittsburg, Hickory, Grove and Brooks Street Improvement.

The Borough reserves the right to reject any or all bids, or to purchase the material for said improvement.

W. N. PORTER, Burgess.
F. M. NEWCOMER,
Secretary of Council.

⁂

Bids received until Apr. 17 and 20, 1915.

Concrete Pavement

Greenwich, Conn., April 3, 1915.

Sealed proposals for about 50,000 square yards of concrete pavement will be received by the Highway Commission of the Town of Greenwich, Conn., at the Borough Court Room in the Town Hall, as follows:

For about 26,500 square yards, to be laid on portions of Field Point Road, Prospect Street, Horseneck Lane and Lake Avenue, until 3 P.M. on Saturday, April 17th, 1915;

For about 23,500 square yards, to be laid on portions of Riverside Avenue and Sound Beach Avenue, until 3 P.M. on Tuesday, April 20th, 1915.

Plans and specifications can be seen and blank form of proposal obtained at the office of the Engineer, Room 5, Greenwich Trust Co. Building, Greenwich, Conn. The right is reserved to reject all bids.

CHARLES T. WILLS, Chairman,
LUKE VINCENT LOCKWOOD,
WILLIAM F. DECKER,
ROBERT L. CHAMBERLAIN,
JOHN MAHER,
NATHANIEL A. KNAPP,
Highway Commission.

⁂

PROPOSALS TO FURNISH or furnish and erect structural steel for shed on Pier No. 18, Balboa Terminals.—Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 a.m., May 3, 1915, at which time they will be opened in public, for furnishing or furnishing and erecting the above-mentioned articles. Blanks and general information relating to this Circular (No. 916) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala., and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.—F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

Bids received until Apr. 30, 1915.

Destructor Plant

Manchester, N. H.

Sealed proposals will be received until two o'clock P.M. April 30th, 1915, for the furnishing of all labor and material and erecting in place and constructing complete in readiness for operation a refuse destructor.

Proposals shall be made in duplicate on blank forms provided (all prices to be stated in words and figures), enclosed in envelope, sealed and endorsed "Proposal for Destructor Plant," and filed with the Board of Public Works at or before the hour above stated, at which time they will be publicly opened and read.

Each proposal shall contain the full name of each person, firm, or corporation interested therein as principal, and the address of the person or the firm or the president and secretary of the corporation, bidding.

Each bidder is required to furnish evidence satisfactory to the Board of Public Works that he has sufficient means and has had sufficient experience in the manufacture of destructors of the class and size required to enable him to undertake and complete the contract herein contemplated.

Each proposal or bid must be accompanied by a check certified by a responsible bank drawn to the order of the treasurer of the City of Manchester in the sum of two (2) per cent. of the total amount of the highest bid for a complete plant. When the award of the contract is made all checks will be returned to the respective bidders except that filed with the accepted proposal or bid, which check will be returned upon signing the contract and filing the required bond. If the bidder to whom the contract has been awarded fails or refuses to enter into the contract within ten (10) days from the date of receipt of notice by the bidder that he has been awarded the contract, the certified check accompanying the proposal and the amount therein mentioned shall be forfeited to the City of Manchester as liquidated damages.

Each bidder is required to file with his proposal the following:

(a) The necessary drawings to clearly indicate to the Board of Public Works the complete arrangement and operation of the specific type of plant which the bidder proposes to install in accordance with the specifications attached; also plan and design of building, chimney and all arrangements demanded by the specifications. Drawings submitted with proposal should be rolled and not folded or creased and not be enclosed with proposal.

(b) A statement giving a complete schedule setting forth where plants of the kind he proposes to construct for the City of Manchester, N. H., have been built in the United States and Canada, when they were built and by whom, how long they have been in operation and by whom operated, if in operation at the present time by whom operated, and if not in operation, why; the capacity, operation, evaporation, temperature, labor, cost per ton of material destroyed, and any other information which might help the Board of Public Works to determine the ability, experience, and standing of the bidder in relation to his proposal and that the labor cost of destruction and all other guarantees are possible.

The Board of Public Works hereby reserves the right to reject any, any part of any, or all proposals should they deem it to be for the best interests of the City of Manchester.

Manchester, N. H., April 2, 1915.

Board of Public Works { Mayor Harry W. Spaulding, Chairman
William McElroy
Charles F. Read

Engineer—Samuel J. Lord.

⁂

U. S. ENGINEER OFFICE, Room 325 Custom House, New Orleans, La., Mar. 13, 1915.—Sealed proposals for furnishing and delivering about 10,000 cubic yards stone at South Pass and Southwest Pass, Mississippi River, will be received at this office until 11 A.M., April 13, 1915, and then publicly opened. Information on application. EDWARD H. SCHULZ, Maj., Engrs.

U. S. ENGINEER OFFICE, Nashville, Tenn., March 13, 1915.—Sealed proposals for construction and erection of steel gates for Locks B and C, Cumberland River, will be received at this office until 11 a.m., April 12, 1915, and then publicly opened. Information on application. H. BURGESS, Major, Engineers.

U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., March 27, 1915.—Sealed proposals for constructing storehouses and a boat shed on Mill Rock at Hell Gate in East River, N. Y., will be received at this office until 12 M., April 26, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Eng'rs.

U. S. ENGINEER OFFICE, Cincinnati, O., April 7, 1915.—Sealed proposals for furnishing and erecting steel lock gates for Dam No. 29, Ohio River, will be received at this office until 2 p.m., April 27, 1915, and then publicly opened. Information on application. H. JERVEY, Lt.-Col., Engrs.

Bids received until Apr. 21, 1915.

Pumping Station Equipment

Durham, N. C.

Sealed Proposals will be received by the Mayor and Board of Aldermen of the City of Durham, N. C., at the City Hall, until 3 P.M. April 21st, 1915, for "Pumping Station Equipment" consisting of three-million gallon Crank and Flywheel Pumping Engines, Turbine driven Centrifugal Pumps, Feed Pumps, Open Feed Water Heaters, 5 K.W. and 7½ K.W. D.C. Electric Lighting Units, Manning Boilers.

Proposals must be marked "Proposal for Pumping Station Equipment."

All proposals must be upon blank forms provided in Proposal and Contract.

Each proposal must be accompanied by a certified check for not less than five per cent. of the amount of the bid, as an evidence of good faith.

Specifications, Contract and Proposal forms will be on file in the office of the City Engineer in Durham or will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by payment of Ten Dollars to insure their return in good condition within thirty days after the date of receiving proposals.

The right is reserved to reject any or all proposals or to consider proposals on alternate equipment.

W. J. BROGDEN, Mayor,
GEO. W. WOODWARD, Clerk.

Engineer—
GILBERT C. WHITE, Charlotte, N. C.

⁂

Bids received until Apr. 12, 1915.

Notice for Bridge Bids

Columbus, Mont.

Board of County Commissioners of the county of Stillwater, Montana, will receive bids for bridges on or before 10:00 o'clock A.M. of April 12th, 1915, at which time bids will be opened.

Bids to be on the following bridges:

No.	Where	Length of Bridge, feet
9	Skew Bridge, Shane Creek	22
11	Butcher Creek, at Campbell place	30
12	East Rosebud, 5 miles above L. C. Piper	60
13	West Rosebud, above Fishtail	55
14	Absarokee, Rosebud River, riveted span	95

The board reserves the right to reject any or all bids. All bids must be addressed to Lloyd B. Barley, County Clerk, Columbus, Mont., inclosing certified check of 5 per cent. of bid.

For further particulars, specifications and plans for these bridges, write or call on R. W. BARR, County Surveyor.

By order of Board of County Commissioners.

B. F. HARRIS, Chairman,
By Lloyd B. Barley, County Clerk.

Dated this 6th day of March, 1915.

⁂

Bids received until Apr. 14, 1915.

Highway Improvements

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at one o'clock p.m., Wednesday, April 14, 1915, for the improvement of Highways in the following counties:

Albany (approx. length, 2.80); Allegany (approx. length, 6.71); Essex (approx. length, 5.34); Franklin, 3 highways (5.50, 4.91, 11.41); Monroe, 2 highways (2.14, 1.87); Oneida (approx. length, 6.65); Oswego, 3 highways (5.41, 5.22, 3.66); St. Lawrence (approx. length, 6.66); Wyoming (approx. length, 3.88).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

⁂

U. S. ENGINEER OFFICE, Room 325 Custom House, New Orleans, La., Mar. 29, 1915—Sealed proposals for furnishing coal for United States plant from July 1, 1915, to June 30, 1916, will be received at this office until 11 A.M., May 3, 1915, and then publicly opened. Information on application. EDWARD H. SCHULZ, Maj., Engrs.

U. S. ENGINEER OFFICE, Louisville, Ky., March 19, 1915. —Sealed proposals for furnishing and delivering American Portland Cement for Dam 43, Ohio River, will be received here until 12 noon, central time, April 19, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

GOVERNORS ISLAND, N. Y. H., Mar. 15, 1915.—Sealed proposals, in triplicate, for furnishing Forage and Straw (three months' and a year's supply) and FUEL, GASOLINE, MINERAL OIL, BEEF and MUTTON, required in Eastern Department during year commencing July 1, 1915, will be received here until 11 a.m., April 14, 1915. Information furnished on application to Department Quartermaster.

U. S. ENGINEER OFFICE, 540 Federal Building, Buffalo, N. Y., March 16, 1915.—Sealed proposals for dredging in Niagara River, N. Y., will be received at this office until 11 a.m., April 15, 1915, and then publicly opened. Information on application. J. G. WARREN, Col., Engrs.

U. S. ENGINEER OFFICE, Wheeling, W. Va., March 29, 1915.—Sealed proposals for furnishing and delivering one service boat, designated No. 10A3, for Lock No. 10, Kanawha River, W. Va., will be received at this office until 11 a.m. (Eastern time), April 29, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

PROPOSALS FOR MANILA BOLT ROPE—Mississippi River Commission, First and Second Districts, Custom House, Memphis, Tennessee, March 20, 1915.—Sealed proposals for furnishing and delivering 62,200 lbs. pure manila bolt rope, will be received at this office until 11 a.m., April 10, 1915, and then publicly opened. Information furnished on application. E. M. MARKHAM, Maj., Engrs.

U. S. ENGINEER OFFICE, Norfolk, Va., Apr. 7, 1915.—Sealed proposals for furnishing about Three Thousand (3,000) Tons of Bituminous Coal will be received at this office until 12 M., May 7, 1915, and then publicly opened. Information on application. J. P. JERVEY, Lt.-Col., Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 42, Eng. News.

MECHANICAL ENGINEER, three years' experience superintending installation of building specialty; also sales experience. P. W. 93, Eng. News, Chicago.

Civil Engineers

GRADUATE ENGINEER, married, wishes work of any kind; can fill any position from axeman to engineer-in-charge; good draftsman; eight years' excellent engineering experience; references. P. W. 101, Eng. News.

GRADUATE C. E., 12 years' experience in railroads, municipal, hydraulic and frog and switch work, desires position in the East. P. W. 975, Eng. News, Chicago.

CIVIL ENGINEER-SUPERINTENDENT; Assoc. M. Am. Soc. C. E., Member Am. Soc. Test. Mats.; concrete testing and proportioning specialist; experience on buildings, ship canal, locks, docks, dams, breakwaters, railways, roads, mines. P. W. 82, Eng. News.

GRADUATE CIVIL ENGINEER wants work of any kind in the engineering line; five years' experience, land surveys, canal, roads, sewers and street paving. P. W. 76, Eng. News.

CIVIL ENGINEER, 26, technical graduate, five years' experience in railroad maintenance and municipal engineering and construction. Good references. P. W. 62, Eng. News, Chicago.

CIVIL ENGINEER, 11 years' varied experience, railroad construction, location and valuation surveys; excellent highway experience; at present in charge of work. P. W. 39, Eng. News, Chicago.

CIVIL ENGINEER; college graduate; Assoc. M. Am. Soc. C. E.; 10 years' experience, design and construction, docks, bridges, roads, canals, surveys. P. W. 21, Eng. News.

GRADUATE CIVIL ENGINEER; 8 years' general experience, four on construction, railroad and land surveying, concrete, sewers, water lines. P. W. 49, Eng. News.

GRADUATE CIVIL ENGINEER; 6 years' experience factory construction and structural drafting; best references. P. W. 58, Eng. News.

TECHNICAL GRADUATE, 25, three years' estimating, construction and office experience. P. W. 111, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER, graduate, M. Am. Soc. C. E., expert designer of steel and reinforced concrete for industrial buildings, tall office buildings and bridges; good executive and personality. P. W. 63, Eng. News.

RESPONSIBLE POSITION wanted, with consulting engineer or contractor. Have designed important structures and am especially efficient handling complicated work. City buildings, industrial and power plants; reinforced concrete. New York interview. P. W. 106, Eng. News.

STRUCTURAL ENGINEER; Assoc. M. Am. Soc. C. E., ten years' experience on tall buildings and bridges; past 5 years in charge of designing for architect of national prominence desires to make change; location middle west. P. W. 105, Eng. News.

Surveyors

YOUNG MAN with 11 years' experience in railroad and general engineering desires position as transitman on any class of work; location immaterial; best references. P. W. 70, Eng. News.

I. C. S. GRADUATE, 20, two years' experience in surveying, drafting; moderate salary. C. E. Norcross, Pemberton, N. J.

I. C. S. STUDENT, age 20, desires position as chainman or rodman with some engineering company in New England or New York. P. W. 107, Eng. News.

SURVEYOR AND DRAFTSMAN; special track work, steam and electric, city and interurban construction, municipal improvements. P. W. 108, Eng. News.

INSTRUMENTMAN, eight years' experience, three tropics, go anywhere. Will pay bonus. P. W. 110, Eng. News.

TRACER of architectural, structural and bridge drawings. Accurate and neat, also blueprinting, best references, moderate salary. P. W. 104, Eng. News.

YOUNG MAN, 20, with 3 years' practical experience as rodman, leveler, transitman, draftsman computer, desires position. P. W. 91, Eng. News.

Draftsmen

FIRST CLASS STRUCTURAL DRAFTSMAN; 12 years' experience detailing, estimating, checking, squadman; all lines work; best reference; desires position. P. W. 56, Eng. News.

Superintendents, Etc.

CONSTRUCTION ENGINEER, 29, technical graduate, six years' experience on construction work, desires position with established contracting firm; willing to make small investment; employed at present. P. W. 34, Eng. News.

YOUNG GRADUATE ENGINEER having had at least one year's experience in the making of structural steel shop drawings, to learn designing a special class of structures; moderate salary. P. 84, Eng. News.

SUPERVISING ENGINEER or inspector for construction work, experienced on concrete construction. P. W. 94, Eng. News, Chicago.

CONTRACTING ENGINEER, 29, married; technical education; five years as principal assistant and right-hand man on $5,000,000 of work to vice-president and chief engineer of large firm of contracting engineers on heavy pneumatic and open foundation bridge work and general contracting; position required engineering and executive ability. P. W. 109, Eng. News.

MANAGER or GENERAL SUPERINTENDENT, 20 years experience handling and getting work. Am thoroughly familiar with all kinds of concrete construction, water-works, reservoirs, dams, filtration plants, sewers, sewage disposal, railroad construction, wood and concrete piling. P. W. 113, Eng. News.

SALES ENGINEER, experienced in design, selling, estimating installing power plants and heating systems desires connection with New York firm. Salary and commission. P. W. 112, Eng. News.

GRADUATE ENGINEER with seven years' responsible experience checking designs of steel and mill work for power plants, etc., desires similar position in New York City. P. W. 103, Eng. News.

CARPENTER FOREMAN; concrete forms or heavy timber work; references. P. W. 102, Eng. News.

ENERGETIC AND AMBITIOUS YOUNG MAN, with knowledge of stenography and drafting, wishes position in office of engineer or contractor where conscientiousness and attention to duty will be appreciated. P. W. 92, Eng. News.

ENGINEER; 27; single; 5 years' experience on railroad construction and 3 years on surveys; 3 years in Brazil; speaks Portuguese; will consider any offer. P. W. 96, Eng. News.

REINFORCED CONCRETE ESTIMATOR, designer, superintendent; graduate civil engineer, 28; six years' experience in contracting firms, reinforced-concrete bridges, foundations and buildings; at present employed by N. Y. contractor; desires to change. P. W. 115, Eng. News.

SALES ENGINEER, 28, married, now employed, desires change; experienced in purchase and sale of new and second hand contractors' equipment, timber, machinery, structural steel and bridges; I want a permanent position with a first class company where intelligence, hard work, sobriety and results determine position and salary; for the right people I will start at the bottom, if necessary, and learn your business and methods before expecting a big salary or attempting sales; some sales correspondence and advertising experience; wou'd make a good advertising man along lines indicated; good appearance and personality; used to traveling. P. W. 90, Eng. News, Chicago.

SUPERINTENDENT or General Foreman; 15 years' experience, all kinds of concrete work; good solicitor and estimator; go anywhere. P. W. 98, Eng. News.

ENGINEER, resourceful designer; 12 years' experience along mechanical and structural lines; thorough theoretical knowledge; would invest some capital. P. W. 97, Eng. News, Chicago.

POSITIONS OPEN

ESTIMATOR on structural steel and light iron work, with some knowledge of detailing; also detailers on structural steel work for tall buildings; give particulars. P. 65, Eng. News.

COMPETENT ENGINEER to take full charge of motor equipment and 400-hp. power plant operating on natural gas in a western Ontario factory; none but first class man with gas engine experience need apply; references absolutely necessary. P. 100, Eng. News.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

CONTRACTORS or others employing laborers, skilled or unskilled. We supply laborers from coast to coast. No order too small or too large. Trial order will convince you. Maurice E. Finn's Labor Agency, largest in New England, 27 Washington St., Boston, Mass.

LABORERS FURNISHED free of expenses for any kind of construction work. The Empire Labor Agency, 93 Mulberry St., New York. (Tel. 1745 Franklin.)

WANTED

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St. Chicago.

SALES REPRESENTATION OF REAL VALUE—An expert and successful sales organization with technical and engineering ability, which has developed and standardized several well known materials and devices with the leading construction engineers and architects, public service, railway, and large industrial corporations in New York and vicinity, desires an additional account on a commission basis. W. 95, Eng. News.

MISCELLANEOUS

CIVIL ENGINEER, graduate, will prepare designs, details, estimates and reports; inspecting; New York location. M. 99, Eng. News.

BUSINESS OPPORTUNITIES

ENGINEER'S GRAND OPPORTUNITY—Long-established young contractor with unquestionable reputation and expert knowledge in the economical construction of public and private work and with exceptional ability in securing and executing profitable contracts desires to meet young graduate civil engineer who is willing to learn the contracting and construction line and take an active interest with an investment of from $15,000 to $25,000. B. O. 872, Eng. News.

AN ENGINEER of ability and standing in the Pacific northwest desires to represent three or four high class concerns as manufacturers agent. Only people who believe that the Pacific coast business warrants the expenditure of expenses advanced against commissions, desired. The only way to get that business is to go after it with a high grade man. Now is the time. B. O. 114, Eng. News.

CORRESPONDENCE COURSES

of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

FOR ENGINEERS

The personal attention of the engineer who prepared these courses is given to all the work submitted by each subscriber and therefore the membership is limited.

Two separate courses are offered, under the following designations,—

STRUCTURAL STEEL DESIGNING
REINFORCED CONCRETE ENGINEERING

These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter taken from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

and save years spent in mis-directed efforts which are a necessary result of trying to acquire experience without the direct aid and assistance of an engineer properly experienced in such work.

Address M. 966, Engineering News

EXAMINATION FOR

ENGINEER

(*With Knowledge of Sewage Disposal*)

Salary $4,000 per annum.

Duty of Engineer will be to organize a staff to utilize to best advantage vast amount of documentary records, and investigations concerning harbor pollution; to continue work of Metropolitan Sewage Commission and institute constructive work for purification of waters surrounding the City. Candidates must show extended study of municipal problems of sewage disposal and an experience of ten years as Sanitary Engineer, five years of which should have been in sewage disposal work.

Subjects and weights are: Experience, 5; Technical, 5. A qualifying physical examination will be given.

Applications will be received from April 6 to 4 p.m. April 20, at Room No. 1400, Municipal Building.

Municipal Civil Service Commission
New York N. Y.

For Sale
Second Hand Equipment

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

Equipment Wanted items appear at the end of this list.

N

ADVERTISERS NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
JENNISON-Wright Co., The, 313 Huron St., Toledo, O.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-⅛x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex. steam driven, cap. 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition.—THEO. SMITH & SONS CO., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

4—15 H.P. Abenaque outfits.—SCHMIDT.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15'. 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

CARS

[Standard Gauge]

45—80,000 lb. flat cars, cheap.—WHITNEY.

[36" Gauge]

50—4 yd. 1-way So. Baltimore, $50 each. 8—K. & J. 3-yd. 2-way, overhauled, $70 each.—GRIMSHAW.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

1 Portable Champion No. 3 jaw stone with elevators.—JENNISON.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

DRILLS

6 Ingersoll, type F-24, and 2 class "C" Little Giant rock drills.—BECKWITH.

Keystone traction No. 3 with placer equipment located at Prescott, Ariz.—L. J. HOHL, 525 Market St., San Francisco, Calif.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

GENERATORS

Western Electric 100 K.W. dir, con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$145 Berger 18" Y level, new condition, $122; $345 Berger 1C transit, V circle, solar, etc., new, $245. Guaranteed; 99 others. Rentals, repairs, supplies.—ARCHITECTS & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

20 ton, 11x16" Davenport, built 1907, $1175.—GRIMSHAW.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

50 H.P. crane for rent.—THE TERRY & TENCH CO., INC., Grand Central Terminal, New York, N. Y.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

1 Foote No. 3 continuous mixer.—JENNISON.

PILING, SHEET STEEL

165 pcs. Lackawanna 14" arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

5000 pcs. Lackawanna and Carnegie. What are your needs?—GRIMSHAW.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

300,000 rethreaded wrought, sizes ¾" to 24".—MARINE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

1—One million gallon, vertical, compound McGowan; only in operation about three years; reason for selling, installation of new equipment. Pump in good condition. Price and full description will be given by S. R. BLAKEMAN, Supt. of City Water & Light Dept., Dyersburg, Tenn.

RAILS

40 ton of 35 lb. with fish plates.—PIPE.

20,000 cu.ft. 24" gauge 20 lb. portable track.—SCHMIDT.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1—5 ton Kelley tandem and 1—7 ton Chicago tandem, both rollers have been used but upon two jobs and are in most excellent condition.—Address the AMERICAN NATIONAL BANK, Findlay, Ohio.

Macadam and asphalt roller; also roller renting business located in N. Y. City.—F. S. 33, Eng. News.

1 Case 10 ton 3 wheel roller and 1 Buffalo-Pitts 10 ton 3 wheel.—JENNISON.

10-ton macadam roller recently overhauled. Low price for quick sale. Write F. S. 31, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

⅝ yd. Thew, $2250; ⅝ yd. Bucyrus 14 B, $2500. Both traction and good.—GRIMSHAW.

Marion Model 31 revolving shovel for sale at Ringtown, Schuylkill County, Pa.—BENNETT & RANDALL, Lebanon, Pa.

TRAVELING CRANES

1 15-ton electric 36' 6" span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

Wanted

One five to seven-ton tandem paving roller. Send description and price to W. 32, Eng. News.

Dredge Pipe For Sale

Pontoon and Land Pipe

20 inches and 22 inches in diameter. Also casks, pontoons, elbows and valves. In good condition, will sell at one-half value. Address,

P. O. Box 27, Rochester, N. Y.

FOR SALE

Air Compressors
Blowers and Fans
Boilers
Buckets
Cars
Derricks
Drills
Electric Locomotives
Elevators
Elevator Engines
Engines
Feed Water Heaters
Generators
Machine Tools
Pipe
Pumps
Oil Separators
Rails
Steel Pontoon
Turn Tables
Valves and Fittings

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.

Hydraulic Dredge and Other Machinery For Sale

One—20" Hydraulic dredge, complete with Pontoons, Pipe Line, etc.
One—1½-yard Vulcan Steam Shovel.
One—No. 3½ Keystone Well Drilling Machine.
Seven—12-yard, 2-Way Oliver Dump Cars with Air Brakes.

For Further Information

Address P. O. Box 27, Rochester, N. Y

Plant and Equipment for Sale

Including locomotives, gondolas, derricks, concrete mixers, rock drills, buckets, pumps, engines, elevators and conveyors. *Ask for new list with revised prices.*

ALABAMA POWER COMPANY,
Birmingham, Ala.

CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York.
Cable Address, Pawnee Havana.
Western Union & Lieber Codes Used.
Havana Office, Zulueta 36 D.

THE SNARE AND TRIEST COMPANY
Woolworth Building, 233 Broadway New York

FOR SALE
Contractors' Equipment

All in Good Condition. Used One Season.

1 No. 562 Flory Hoist; 1 No. 12 Koehring Mixer on trucks, side loader, Gasoline; 1 No. 24 Koehring Mixer on trucks, side loader, Steam; 1 No. 106 Clyde Hoist; 1 Automatic Concrete Roller Hoist; 3 Centrifugal Pumps 2"-4"-5"; 1 C. H. & E. No. 2 Iron Portable Saw Rig, Gasoline; 1 Engineers' Transit; 1 Y Builders' Level; 18 Pair Swinging Scaffolds; 1 Universal Drafting Machine; 1 2-Ton Kelley Motor Truck; Motors; Pumps; Elevators; and a quantity of small equipment and form lumber.

LIEBEL-BINNEY CONSTRUCTION COMPANY
ERIE, PA.

FOR SALE
Road and Sewer Builders Attention

1 Knox Tractor with 10 ton dump body, same being equipped with ball bearing wheels. In fine condition, excellent for hauling stone.

4 Buffalo Pitts 2 way traction wagons, bottom dump. Capacity 8 ton, excellent condition. Price $150 each.

2 Buffalo Pitts Traction Engines, one equipped with Westinghouse air compressor, to run Jackhamer drills, just the thing for sewer and water ditches.

1 Carson Trench machine with large and small buckets for sewer trenches. Very best of condition.

1 9x16 Farrel Crusher with new manganese jaws, perfect condition, $300.

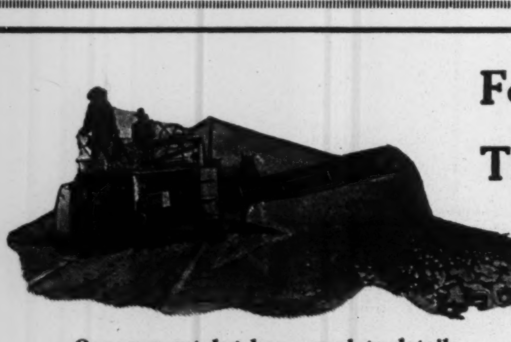
3 three-horse hitch Watson wagons, bottom dump, capacity 7 ton, Price, $150 each.

1 Buffalo Pitts Steam Roller, good condition, price $1,000.

All of the above can be seen at our yards at Bridgeport, Conn.

The B. D. Pierce, Jr. Company
122 Bank Street Bridgeport, Conn.

For Your Spring Road Building
and all the year round
The Western Elevating Grader



This powerful machine will load 100 one and one-half yard wagons an hour with only two men to run it. Figure the saving it will make over a shovel-gang filling two wagons a minute. Easy-running—strong—gives continuous service.

Our new catalog has complete details. Write for a copy.

Western Wheeled Scraper Co.
Aurora, Ill.

Bids received until Apr. 20, 1915.

Section 2, River Road

Mercer County, N. J.

Sealed proposals will be received by the Board of Chosen Freeholders of the County of Mercer, at their place of meeting, Court House, Trenton, N. J., on Tuesday, April 20, at 2:30 p.m., and then opened—

For the furnishing of materials, tools, machinery and labor necessary for the efficient and proper grading of the roadway, side ditches, side banks, and rolling, spreading and laying of road metal, and all the work of construction incidental thereto, for the improvement of a road known as "Section 2, River Road," with bituminous concrete. Said road beginning at station 100, plus 60, near Titusville, in the Township of Hopewell, and extending to the Hunterdon County line at station 252, plus 50.

As a guarantee of good faith, and to secure the County of Mercer from any loss by failure to comply with the terms of the bid, all bidders shall accompany their bid with a certified check, payable to the order of Joseph H. Black, county collector, in the sum of one thousand ($1,000) dollars, or like amount in cash, as a guarantee that if the contract shall be awarded to him he will, within thirty (30) days, execute an agreement in writing with the Board of Chosen Freeholders of the County of Mercer to perform the work according to the plans and specifications. Upon failure by the contractor to enter into said agreement with the Board of Chosen Freeholders, said certified check or cash shall be forfeited and considered as liquidated damages.

All bids must be enclosed in a sealed envelope addressed to the Board of Chosen Freeholders of Mercer County, New Jersey, and bearing on the outside the name and address of the bidder. The bid must be delivered at the Court House, Trenton, N. J., on or before April 20, 1915, at 2:30 p.m., and shall be plainly written on the outside of the envelope, "Proposal for Section 2, River Road."

No proposal will be received or opened unless these conditions are complied with on the part of the bidder.

The check of the successful bidder will be held until the contract is executed, together with a bond for a sum not less than the estimated cost of the road when completed, conditioned for the faithful performance of the contract in accordance with the plans and specifications, and approved by the Board of Chosen Freeholders or its committee.

Plans and specifications are on file in the office of Theodore Tobish, county engineer, Court House, Trenton, N. J., and at the office of the Commissioner of Public Roads, State House, Trenton, N. J., and may there be examined.

The form of proposal on file with the said county engineer must be the form used in making bids.

The right is reserved to reject any or all bids, or to waive any defect or informality in any bid, if deemed in the interest of the county to do so.

JOHN J. POWER, Director.

⁂

Bids received until Apr. 19, 1915.

Albany County Court House

Albany, N. Y.

Sealed proposals will be received at the office of the Clerk of the Board of Supervisors, City Hall, Albany, N. Y., until 12 o'clock noon, April 19, 1915, for furnishing and installing of the Steel furniture of a new Court House for the County of Albany, N. Y., situated on the southerly side of Columbia Street, between Lodge and Eagle Streets, in the City of Albany, N. Y.

Plans and specifications may be seen at the office of the Clerk of the Board at City Hall, Albany, N. Y., or at the office of Hoppin & Koen, Architects, 244 Fifth Avenue, New York City, after March 31, 1915.

Contractors desirous of obtaining copies of the plans and specifications for the purpose of estimating may do so by applying either in person or in writing to the above architects, who will loan them copies of the specifications and give them an order on a blue print firm, to whom the original tracings will be loaned. Upon receipt of such order a set of prints will be immediately forwarded to Contractor, who will pay printer for cost of prints.

No refund will be made for return of prints.

Dated March 31, 1915.

JOHN F. HYATT,
THOMAS WAREING,
EDWARD F. DEMPSEY,
NELSON BOYD,
FRANCIS VROOMAN,
Committee of Public Buildings of Albany County Board of Supervisors.

Bids received until Apr. 20, 1915.

Section 1, River Road

Mercer County, N. J.

Sealed proposals will be received by the Board of Chosen Freeholders of the County of Mercer, at their place of meeting, Court House, Trenton, N. J., on Tuesday, April 20, at 2:30 p.m., and then opened—

For the furnishing of materials, tools, machinery and labor necessary for the efficient and proper grading of the roadway, side ditches, side banks, and rolling, spreading and laying of road metal, and all the work of construction incidental thereto, for the improvement of the road known as "Section 1, River Road," with concrete. Said road beginning at Washington's Crossing station, minus 5 plus 0, in the township of Hopewell, and ending at station 100, plus 60.

As a guarantee of good faith, and to secure the County of Mercer from any loss by failure to comply with the terms of the bid, all bidders shall accompany their bid with a certified check, payable to the order of Joseph H. Black, county collector, in the sum of one thousand ($1,000) dollars, or like amount in cash, as a guarantee that if the contract shall be awarded to him he will, within thirty (30) days, execute an agreement in writing with the Board of Chosen Freeholders of the county of Mercer to perform the work according to the plans and specifications. Upon failure by the contractor to enter into said agreement with the Board of Chosen Freeholders, said certified check or cash shall be forfeited and considered as liquidated damages.

All bids must be enclosed in a sealed envelope addressed to the Board of Chosen Freeholders of Mercer County, New Jersey, and bearing on the outside the name and address of the bidder. The bid must be delivered at the Court House, Trenton, N. J., on or before April 20, 1915, at 2:30 p.m., and shall be plainly written on the outside of the envelope "Proposal for Section 1, River Road."

No proposal will be received or opened unless these conditions are complied with on the part of the bidder.

The check of the successful bidder will be held until the contract is executed, together with a bond for a sum not less than the estimated cost of the road when completed, conditioned for the faithful performance of the contract in accordance with the plans and specifications, and approved by the Board of Chosen Freeholders or its committee.

Plans and specifications are on file in the office of Theodore Tobish, county engineer, Court House, Trenton, N. J., and at the office of the Commissioner of Public Roads, State House, Trenton, N. J., and may there be examined.

The form of proposal on file with the said county engineer must be the form used in making bids.

The right is reserved to reject any or all bids, or to waive any defect or informality in any bid, if deemed in the interest of the county to do so.

JOHN J. POWER, Director.

⁂

Bids received until Apr. 19, 1915.

Albany County Court House

Albany, N. Y.

Sealed proposals will be received at the office of the Clerk of the Board of Supervisors, City Hall, Albany, N. Y., until 12 o'clock noon, April 19, 1915, for furnishing and installing the finish of the Special Rooms of a new Court House for the County of Albany, N. Y., situated on the southerly side of Columbia Street, between Lodge and Eagle Streets, in the City of Albany, N. Y.

Plans and specifications may be seen at the office of the Clerk of the Board at City Hall, Albany, N. Y., or at the office of Hoppin & Koen, Architects, 244 Fifth Avenue, New York City, after March 31, 1915.

Contractors desirous of obtaining copies of the plans and specifications for the purpose of estimating may do so by applying either in person or in writing to the above architects, who will loan them copies of the specifications and give them an order on a blue print firm, to whom the original tracings will be loaned. Upon receipt of such order a set of prints will be immediately forwarded to Contractor, who will pay printer for cost of prints.

No refund will be made for return of prints.

Dated March 31, 1915.

JOHN F. HYATT,
THOMAS WAREING,
EDWARD F. DEMPSEY,
NELSON BOYD,
FRANCIS VROOMAN,
Committee of Public Buildings of Albany County Board of Supervisors.

Bids received until May 15, 1915.

Pumping Engine

Binghamton, N. Y., March 26, 1915.

The Board of Water Commissioners of the City of Binghamton, New York, will receive sealed proposals until ten o'clock A.M., on the fifteenth day of May, 1915, for furnishing and installing complete:

One (1) Horizontal Cross-Compound High Duty Crank and Flywheel Pumping Engine of 10,000,000 gallons daily capacity.

Proposals must include all piping necessary within the engine room walls, together with such gauges, revolution counters, tools and attachments as are generally furnished to constitute a complete and first-class pumping plant of this capacity.

In order to receive consideration, proposals must be accompanied by a certified check made payable to the Board of Water Commissioners of Binghamton, N. Y., or a bond of some approved trust company and acceptable to the Board and in their favor in the sum of Two Thousand Five Hundred ($2,500) Dollars, which amount shall be forfeited to the above Board as representatives of the City of Binghamton without recourse by the company or person to whom an award of contract shall be made in case such company or person shall fail to enter into a contract with the city within fifteen (15) days after having been notified of such award.

Parties tendering proposals must file with such proposals a set of full detailed specifications which shall describe in a comprehensive manner the different parts of the engine, giving sizes and dimensions of the same, and also the name of the material from which parts are to be constructed.

There must also be furnished with all proposals detailed blue prints or drawings sufficient for the Board and its Engineer to easily understand the construction and working parts of the engine proposed.

The time necessary to construct and install complete the Pumping Engine proposed must be specifically stated, as a forfeit will be exacted in case the time limit named in the contract is exceeded.

The right to reject any or all proposals or to award a contract in such a manner or to such parties as may be deemed for the best interests of the City of Binghamton is reserved by the Board of Water Commissioners.

Specifications may be had upon application to the secretary.

JOHN D. DAVIDSON, Secretary,
Binghamton, N. Y.

⁂

Bids received until Apr. 29, 1915.

Sewers and Bridge

DEPARTMENT OF PUBLIC WORKS
Office, 216 City Hall,
Philadelphia, April 12, 1915.

Sealed Proposals, endorsed "Bids for Branch sewers, Main sewers, Repairs to old sewer, Inlets, etc., Shafting and Belt Mule Drive and Bridge," and addressed to the undersigned, at Room 216 City Hall, will be received until 12 o'clock noon, on Thursday, April 29th, 1915, for

Schedule A. Branch sewers.
" B. Main sewers.
" C. Repairs to old sewer (Thompson St.).
" D. Inlets, laterals, etc.
" E. Shafting and Belt Mule Drive over Engine No. 1 at the Pennypack Creek Pumping Station.
" F. Bridge on line of 58th street over Philadelphia and Baltimore Central Railroad.

Plans for the above work will be exhibited in the office of Bureau of Surveys, Philadelphia.

Specifications and blank forms upon which bids must be made will be furnished upon application to the Chief Engineer, Room 416, City Hall.

Bidders must be skilled and regularly engaged in the class of work bid for.

Bids will be opened and read in Room 225 City Hall, at noon, on date above mentioned.

No bid will be considered unless accompanied by a certificate from the City Solicitor, that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81, West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city.

M. L. COOKE, Director.

Bids received until Apr. 30, 1915.

Street Paving, Concrete Storm Sewer, Filter Unit

DEPARTMENT OF STREETS AND PUBLIC IMPROVEMENTS
City of Reading, Pa., April 15, 1915.

Sealed proposals will be received at the office of the City Clerk, Reading, Pa., until 11 A.M., Friday, April 30th, 1915, for the following improvements:

Approximate Quantities.

STREET PAVING AND APPURTENANCES—	
Wood block on concrete base	5,925 sq.yds.
Bituminous "Hot Mix" macadam on concrete base	8,920 sq.qds.
Vitrified block on concrete base	10,035 sq.yds.
Granite block paving	1,620 sq.yds.
Concrete paving	900 sq.yds.
Sheet Asphalt repair work	15,000 sq.yds.
CONCRETE STORM SEWER AND APPURTENANCES ON WEST ELM AND ELM STREET—	
5′ circular concrete sewer	2,500 lin.ft.
Vitrified pipe sewer	400 lin.ft.
4′x7′ 10″ concrete sewer	82 lin.ft.
Silt basin	50 lin.ft.
Concrete manhole	170 vert.ft.
Catch basins	11
FILTER UNIT ON FRITZ'S ISLAND, MILLMONT, BERKS CO., PA.—	
Filter Unit and appurtenances	1 acre

Blank forms of proposals, proposal and contract bonds, specifications and any other information can be obtained at the office of the City Engineer, City Hall, Reading, Pa.

Plans and specifications for the several classes of work can be obtained by making the following CASH DEPOSITS: $20.00 for street paving, $10.00 for storm sewer, and $40.00 for filter unit, which deposits will be remitted to bidders upon return of plans before May 4th, 1915.

Proposals for the several classes of work must be endorsed as follows: "Proposal for Street Paving," "Proposal for Storm Sewer on West Elm and Elm Street," "Proposal for Filter Unit," and be addressed to the Superintendent of the Department of Streets and Public Improvements, in care of the City Clerk, Reading, Pa.

The right is reserved to reject any or all bids.

JACOB H. McCONNELL, Superintendent.
EDMUND B. ULRICH, City Engineer.

⁂

Bids received until May 3, 1915.

Notice to Bridge Contractors

Cobleskill, N. Y.

Sealed bids and proposals will be received by the undersigned at the office of the Town Clerk in the Village and Town of Cobleskill, Schoharie County, N. Y., until One o'clock in the afternoon of May 3rd, 1915, at which place and hour they will be publicly opened and read, for furnishing material in constructing a new bridge over the Cobleskill Creek near the residence of Foster Barner in said Village and Town.

Detailed plans and specifications of said bridge may be seen and examined at the office of the Town Clerk in said Village and Town, and at the State Highway Commission's Office at Albany, N. Y.

Each bid of proposal must be addressed to Ogden Eldredge, Town Clerk, Cobleskill, Schoharie County, N. Y.

The right to reject any and all bids is hereby reserved.

LORENZO J. GORDON,
Town Superintendent of Highways of the Town of Cobleskill, N. Y.

Dated April 9th, 1915.

⁂

Bids received until May 3, 1915.

Bridge

Media, Pa., April 9th, 1915.

Sealed proposals will be received at the office of the County Commissioners, Media, Delaware County, Pa., for the construction of a bridge on line of Baltimore Pike over Ridley Creek between Middletown and Upper Providence Townships, Delaware County, near Media, Pa., on the morning of May 3rd, 1915, at 10 o'clock A.M. Plans and specifications will be furnished at the Commissioners' Office, Media, Pa.

The Commissioners reserve the right to reject any or all bids.

ORION L. DAVIS, County Controller.

Bids received until Apr. 20, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Tuesday, April 20th, 1915, for the repair of contracts in the following counties:

Albany (one contract—resurfacing 1.9); Broome (one contract—surface treatment 5.73); Chenango (one contract—surface treatment 1.07); Clinton (one contract—resurfacing 7.34); Delaware (one contract—surface treatment 1.00); Essex (one contract—resurfacing 3.64); Onondaga, three contracts (resurfacing—1.72, 2.21, 2.50); Oswego, two contracts (resurfacing—3.09, 2.09); Otsego (one contract—surface treatment 9.07); Rensselaer (one contract—resurfacing 2.46); Saratoga (one contract—resurfacing 3.79); Schoharie (one contract—surface treatment 8.49); Seneca (one contract—resurfacing 5.72); Sullivan (one contract—resurfacing 1.50); Suffolk (one contract—resurfacing 3.82); Warren (one contract—resurfacing 4.12); Wayne (one contract—surface treatment 7.01); Wyoming (one contract—resurfacing 1.28).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

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Bids received until Apr. 30, 1915.

Proposals for Concrete Wall

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Friday, April 30th, 1915, at 12 o'clock Noon, for furnishing all labor and materials and erecting a concrete Retaining Wall along Solomon's Creek between Franklin and Vulcan Streets in said City. Bids to be submitted in accordance with specifications, copies of which may be had upon application to B. K. Finch, City Engineer, upon payment to him of the sum of $5.00, which will be refunded to bidders, provided specifications are returned to the City Engineer on or before May 5th, 1915. Proposals to be endorsed "Proposals for Retaining Wall" and must be accompanied by a certified check in the sum of $500.00 and to be addressed to Fred H. Gates, City Clerk. The City Council reserves the right to reject any or all bids received.

C. N. LOVELAND,
Superintendent Department Streets and Public Improvements.

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Bids received until Apr. 27, 1915.

Earth Levee

Augusta, Ga.

SEALED PROPOSALS, ADDRESSED to the City Council of Augusta, Ga., will be received by the River and Canal Commission at its office, 747 Broad Street, Augusta, until 4 P.M., Tuesday, April 27th, for furnishing all labor and outfit and constructing complete an earth levee along the Savannah River below the city of Augusta.

The work is divided into two contracts known as sections Nos. 5 and 6. There will be approximately a half-million cubic yards in each section. A certified check for $500 must be deposited with bid as a guarantee of good faith. A bond of $20,000.00 on each section will be required from the successful bidders. Payments will be made in cash on monthly estimates.

The right is reserved to reject any and all bids. Plans and specifications may be had on application to the undersigned.

NISBET WINGFIELD, Chief Engineer.

Bids received until May 5, 1915.

Steam Turbine-Driven Centrifugal Pump

Kansas City, Mo.

SEALED PROPOSALS will be received by the Purchasing Agent of Kansas City, Missouri, at the office of the Purchasing Agent, Second Floor, City Hall, until two o'clock p.m. of Wednesday, May 5th, 1915, for the designing, construction, delivery and erection of a steam turbine, reduction gear, centrifugal pumping unit of a capacity to pump continuously twenty (20) million U. S. gallons of water per twenty-four (24) hours, against a total combined head of three hundred and sixty (360) feet and steam pressure of one hundred and sixty-five (165) pounds per square inch at throttle; together with all machinery, tools and appurtenances necessary; all in accordance with the plans and general specifications on file in the office of the Chief Engineer of the Water Department.

Each bidder shall deposit with the City Comptroller a certified check in the amount of Seven Hundred and Fifty Dollars ($750.00), payable to the City Comptroller of Kansas City, Missouri, and accompany his bid with the Comptroller's receipt therefor.

The certified check referred to in the Advertisement shall be submitted by each bidder as a guaranty that the bidder will, within ten (10) days after receiving the award of a contract, file with the City a satisfactory bond to the amount of Twenty-five Thousand Dollars ($25,000.00) and will execute the contract.

The Board of Fire and Water Commissioners does not bind itself to accept the lowest or any bid offered, and reserves the right to reject any and all bids and to waive any informality when it seems to be to the interest of Kansas City, Missouri, to do so.

J. P. LANGAN, Purchasing Agent.
BURTON LOWTHER, Chief Engineer.

⁂

Bids received until Apr. 29, 1915.

Furnishing Stone

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Thursday, April 29th, 1915, for furnishing stone on the following contracts:

Albany 2 (4020 tons); Allegany (820 tons); Broome 2 (2540 tons); Cattaraugus and Chautauqua (2450 tons); Cayuga (491 tons); Chemung (1380 tons); Chenango (2645 tons); Cortland (1010 tons); Delaware and Schoharie (1540 tons); Erie 2 (8700 tons); Niagara (1400 tons); Onondaga (1165 tons); Otsego (790 tons); Rensselaer 2 (1415 cu.yds.); Rensselaer (1340 tons); Saratoga (1650 tons); Schenectady (2025 tons); Schoharie (391 cu.yds.); Schuyler (400 tons); Seneca (355 tons); Sullivan (265 tons); Tioga (780 tons); Tompkins (2465 tons); Wayne (605 tons); Yates (250 tons); Oswego (755 tons).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, New York, and also at the office of the Division Engineer in whose division the stone is to be furnished. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The special attention of bidders is called to the "Information for Bidders" in the itemized proposal, specifications and contract-agreement.

The right is reserved to reject any or all bids.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

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Bids received until Apr. 23, 1915.

Combined Sewer System

Kenosha, Wisconsin.

Sealed proposals will be received at the office of the Street Assessment Committee, in the City Hall of the City of Kenosha, Wisconsin, until the 23rd day of April, 1915, at 2:00 P. M., for 1500 ft. of 84"; 2700 ft. of 66"; 1200 ft. of 36"; 835 ft. of 30"; 1165 ft. of 24"; 470 ft. of 22"; 890 ft. of 20"; 980 ft. of 18"; 2980 ft. of 15" and 2250 ft. of 12" sewer, vitrified tile, vitrified segmental block, reinforced concrete pipe, concrete or brick.

Plans, specifications and proposal blanks may be had at the office of the City Engineer.

The right to reject any or all bids is reserved.

B. C. BRENNAN, City Engineer.

Bids received until Apr. 29, 1915.

Street Paving

OFFICE OF THE BOARD OF COMMISSIONERS,
Nashville, Tennessee, April 13, 1915.

Notice is hereby given that sealed proposals will be received at the office of the Secretary of the Board of Commissioners until 10 o'clock A.M. April 29th, 1915, for the construction of certain wood block paving under Special Benefit Improvement Ordinances, Nos. 59, 60, 61, 62; certain bitulithic paving under Special Benefit Improvement Ordinances, Nos. 63, 64, 65, 66, 67, 68, 72; certain granite block paving under Special Benefit Improvement Ordinances, Nos. 70, 71, 73, 74, 76, 77, 78; certain concrete paving under Special Benefit Improvement Ordinance No. 75; certain bituminous macadam paving under Special Benefit Improvement Ordinances, Nos. 80, 81, 83, 85, 86, 87, 88, 89, 90, 91, 92, 97, 98, 99; and certain bitustone paving under Special Benefit Improvement Ordinances, Nos. 82, 84, 93, 94, 95, 96. Separate proposals must be submitted for each street and must be on blank forms accompany specifications, which will be furnished by W. W. Southgate, City Engineer, upon request. Proposals must be accompanied by a certified check or cashier's check of a National Bank located in Nashville, Tenn., payable to the order of the Board of Commissioners in an amount equivalent to ten per cent. of the aggregate bid, or an approved bond in the penal sum of a like amount with at least two good and solvent sureties, who are citizens or residents of Nashville, Tenn.; or in lieu of personal sureties, the bond of some surety company authorized to execute such a bond in the State of Tennessee. The said checks or bonds will be returned to unsuccessful bidders upon award of contracts, and to successful bidders when they shall have entered into contract and made approved bond for the faithful performance of said contract as required by law. The right to reject any and all bids is expressly reserved.

A deposit of $5.00 will be required to accompany each application for specifications and which will be returned to the depositor either upon the filing of bids or upon the return of the specifications.

By order of the Board of Commissioners.

H. E. HOWSE, Mayor.

Attest: J. W. DASHIELL, Secretary.

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Bids received until Apr. 22, 1915.

Furnishing Hardware

Syracuse, N. Y.

Sealed proposals for furnishing the finishing hardware for the College of Forestry Building at Syracuse University, Syracuse, N. Y., will be received by Dr. Hugh P. Baker, Dean, in Room 19, basement of Lyman Hall at Syracuse University, until 2 P.M. on Thursday, April 22, 1915, when they will be opened and read publicly. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed. The right is reserved to reject any or all bids. Copies of specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice, and may be seen at the New York office of the Department of Architecture, Room 1224 Woolworth Building, New York City, and at the office of the New York State College of Forestry, Syracuse, N. Y.

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Bids received until May 3, 1915.

Notice to Bridge and Concrete Contractors

Hamlin, West Va.

Sealed bids will be received until 2 o'clock P.M. May 3, 1915, by the Commissioners of the Lincoln County Court of Lincoln County, West Va., at Hamlin, West Va., the County Seat of said County, and at the County Clerk's Office,

FOR THE CONSTRUCTION OF A STEEL BRIDGE ACROSS GUYANDOTTE RIVER AND THE CONCRETE WORK FOR SAME.

For plans and specifications, address Oliver & Maupin, Engineers, Huntington, West Va.

The said Commissioners reserve the right to reject any and all bids.

A. C. PARSONS, President.
By ALBERT F. BLACK, Clerk.
Lincoln County Court.

Bids received until May 5, 1915.

Grasse River Bridge

Canton, N. Y.

Sealed proposals will be received at the office of the Town Clerk of the Town of Canton, St. Lawrence County, New York, until the 5th day of May, 1915, at 2 P.M., for the building of a concrete-steel arch bridge over the Grasse River in the Village of Canton, and will be publicly opened and read at that time.

Plans and specifications may be seen and forms of proposal may be obtained at the office of the Town Clerk of Canton, St. Lawrence County, N. Y., and also at the office of the Concrete-Steel Engineering Company, Park Row Building, New York, N. Y. Copies of the plans and specifications may be obtained from the Concrete-Steel Engineering Co., upon making a deposit of $10.00, which will be refunded upon the return of the plans and specifications in good order.

Each proposal must be accompanied by an unconditional certified check on a National Bank for ten (10%) per cent. of the contract price, made payable to the order of Ceylon G. Chaney, Town Supervisor, as evidence of good faith, and to be forfeited to the Town of Canton as liquidated damages in case of failure on the part of the bidder to enter into a contract for the execution of the work, and to furnish satisfactory surety bond as hereinafter stipulated. Bidder's certified checks will be returned after consideration of the bids, and the check of the successful bidder will be returned as soon as the contract is signed.

Proposals will be entertained only from parties who have at their command the necessary capital, plant and experience for properly doing such work.

Envelopes containing proposals must have endorsed thereon—"Proposal for Grasse River Bridge at Canton, N. Y."

The right is reserved by the Town to accept any proposal, or to reject any or all proposals.

TOWN OF CANTON
By CEYLON G. CHANEY, Supervisor.
H. M. BARBER, Town Clerk.

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Bids received until Apr. 17 and 20, 1915.

Concrete Pavement

Greenwich, Conn., April 3, 1915.

Sealed proposals for about 50,000 square yards of concrete pavement will be received by the Highway Commission of the Town of Greenwich, Conn., at the Borough Court Room in the Town Hall, as follows:

For about 26,500 square yards, to be laid on portions of Field Point Road, Prospect Street, Horseneck Lane and Lake Avenue, until 3 P.M. on Saturday, April 17th, 1915;

For about 23,500 square yards, to be laid on portions of Riverside Avenue and Sound Beach Avenue, until 3 P.M. on Tuesday, April 20th, 1915.

Plans and specifications can be seen and blank form of proposal obtained at the office of the Engineer, Room 5, Greenwich Trust Co. Building, Greenwich, Conn. The right is reserved to reject all bids.

CHARLES T. WILLS, Chairman,
LUKE VINCENT LOCKWOOD,
WILLIAM F. DECKER,
ROBERT L. CHAMBERLAIN,
JOHN MAHER,
NATHANIEL A. KNAPP,
Highway Commission.

Bids received until May 10, 1915.

Metal Flumes

Lewistown, Mont.

Winnett Irrigation Company, of Lewistown, Montana, E. H. Holmboe, Secretary, desires bids for Metal Flumes. Contracts will be let May 10th, 1915.

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U. S. ENGINEER OFFICE, Louisville, Ky., April 12, 1915.—Sealed proposals for two steel dump scows will be received here until 12:00 noon, Central Time, May 13, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

Bids received until Apr. 21, 1915.

Sheet Asphalt

Cape May, N. J.

PROPOSALS in the form of sealed bids will be received by the Committee on Streets and Highways of the City of Cape May Council at 8:00 p.m. on April 21, 1915, at the City Hall, for the laying of approximately:

5325 square yards of sheet asphalt;

913 square yards of repressed vitrified brick gutters.

Construct seven (7) manholes.

All with the necessary appurtenances.

Paving to lie between Perry Street and Franklin Street on Washington Street.

Proposals are to be made on attached sheets to specifications and presented sealed at the time and place above mentioned. Copies of plans and specifications may be obtained from the City Recorder by a deposit of $5.00, which will be returned on the surrender of same in good condition.

The City Council expressly reserves the right to reject any or all bids. No bid will be received unless offered by a thoroughly responsible party who have been regularly and satisfactorily engaged in this sort of work before.

(Signed) MEMUCAN HUGHES, Chairman.
THOS. W. MILLETT, Recorder.
L. E. MILLER, JR., City Engineer.

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U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for furnishing and placing stone riprap along lake face of main breakwater, Harbor Beach, Michigan, will be received at this office until 12 noon, May 11, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for constructing and placing two timber cribs and replacing with concrete, timber superstructure, breakwater at Harbor Beach, Michigan, will be received at this office until 12 noon, May 12, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for construction of concrete masonry for fourth lock at Sault Ste. Marie, Mich., will be received at this office until 12 M., May 15, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engrs.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for dredging ship channel in Lake St. Clair, Mich., will be received at this office until 12 noon, April 28, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 10, 1915. —Sealed proposals for constructing about 9000 feet standard revetment on Missouri River, about 24 miles below Kansas City, and two miles from Atherton, will be received at this office until 12 M., May 10, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

OFFICE OF THE COMMISSIONERS, D. C., April 7, 1915.—SEALED PROPOSALS will be received at this office, Room 509 District Building, until 2 o'clock P.M., on April 21, 1915, for the construction of Sewers in the District of Columbia, involving the construction of approximately 1,000 linear feet of trunk sewer, 3 foot span. Forms of proposals, specifications and necessary information may be obtained from the Chief Clerk, Engineer Department, Room 427 District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 10, 1915. —Sealed proposals for constructing about 4,200 feet standard 3-row timber dike on Missouri River, about 12 and 20 miles below Kansas City, and about one-half mile below Cement City and near So. Liberty, will be received at this office until 12 M. May 10, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., March 27, 1915.—Sealed proposals for constructing storehouses and a boat shed on Mill Rock at Hell Gate in East River, N. Y., will be received at this office until 12 M., April 26, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Eng'rs.

Bids received until May 5, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Wednesday, May 5th, 1915, for the improvement of Highways in the following counties:

Allegany, 2 highways (4.00; 8.64); Cattaraugus (approx. length 4.43); Chautauqua, 2 highways (3.99; 1.59); Dutchess (approx. length .88); Franklin (approx. length 8.81); Hamilton (approx. length 5.01); Herkimer, 3 highways (1.81; 3.60; 5.63); Jefferson (approx. length 7.27); Livingston, 3 highways (3.51; 3.96; 2.18); St. Lawrence, 3 highways (5.66; 9.09; 10.85); Schenectady (approx. length 5.62); Schoharie (approx. length 4.99).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is caled to "INFORMATION FOR BIDDERS" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

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Bids received until Apr. 27, 1915.

Concrete Dam and Bulkhead

Waverly, Iowa.

Bids will be received up to 5 o'clock on April 27, 1915, to be opened at 8 o'clock P.M. that day, for the construction of a concrete dam and bulkhead across the Cedar River at Waverly, Iowa. A deposit of $5.00 is required for plans and specifications, which are on file with the City Clerk of said City.

H. R. VAN DERVEER, City Clerk.
C. A. COOL, Engineer.

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PROPOSALS FOR A GUARD HOUSE AND BAKERY. Office, Depot Quartermaster, El Paso, Texas, March 29, 1915.—Sealed proposals for the construction, plumbing, heating, electric wiring and fixtures, of a guard House and Bakery, at Fort Bliss, Texas, will be received in this office until 11:00 A.M., April 30, 1915, and then opened. Information furnished on application. Applications for plans, etc., should be accompanied by a certified check for $10.00 to insure their return. Envelopes containing proposals should be indorsed "Proposals for Guard House and Bakery, Fort Bliss, Texas," and addressed Major William Elliott, Quartermaster Corps, U. S. Army.

U. S. ENGINEER OFFICE, Louisville, Ky., March 19, 1915. —Sealed proposals for furnishing and delivering American Portland Cement for Dam 43, Ohio River, will be received here until 12 noon, central time, April 19, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

U. S. ENGINEER OFFICE, Wheeling, W. Va., March 29, 1915.—Sealed proposals for furnishing and delivering one service boat, designated No. 10A3, for Lock No. 10, Kanawha River, W. Va., will be received at this office until 11 a.m. (Eastern time), April 29, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

U. S. ENGINEER OFFICE, Cincinnati, O., April 7, 1915.—Sealed proposals for furnishing and erecting steel lock gates for Dam No. 29, Ohio River, will be received at this office until 2 p.m., April 27, 1915, and then publicly opened. Information on application. H. JERVEY, Lt.-Col., Engrs.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., April 10, 1915.—Sealed proposals will be opened in this office at 3 p.m., May 18, 1915, for the construction complete (including mechanical equipment, lighting fixtures, and approaches) of the United States post office at Laurel, Miss. One-story-and-basement building; ground area 7,000 square feet; fireproof throughout, except roof; stone facing below first-floor line, brick facing with stone base and stone and marble trimmings above first-floor line; tile and composition roof, with wood and copper cornice. Drawings and specifications may be obtained from the custodian of site at Laurel, Miss., or at this office, in the discretion of the Supervising Architect. O. WENDEROTH, Supervising Architect.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 42, Eng. News.

MECHANICAL ENGINEER, three years' experience superintending installation of building specialty; also sales experience. P. W. 93, Eng. News, Chicago.

MECHANICAL AND ELECTRICAL ENGINEER, technical graduate, desires advantageous change; clean, successful record; last five years plant engineer, one of largest concerns in Middle West. Full charge of all electrical and mechanical equipment, plant construction and maintenance, light, heat, power, fire protection, accident prevention, etc. P. W. 136, Eng. News, Chicago.

MECHANICAL ENGINEER, technical graduate, 26, single, three years' experience, construction, sales and office work, desires position on construction or in manufacturing plant; salary $1200. P. W. 141, Eng. News.

MECHANICAL ENGINEER, resourceful designer; five years' experience; intelligent and industrious, with executive ability. P. W. 123, Eng. News.

MECHANICAL ENGINEER AND DESIGNER with knowledge of structural work; best of references. P. W. 126, Eng. News.

Civil Engineers

GRADUATE ENGINEER, married, wishes work of any kind; can fill any position from axeman to engineer-in-charge; good draftsman; eight years' excellent engineering experience; references. P. W. 118, Eng. News.

GRADUATE ENGINEER, married, wishes work of any kind; can fill any position from axeman to engineer-in-charge; good draftsman; eight years' excellent engineering experience; references. P. W. 101, Eng. News.

GRADUATE CIVIL ENGINEER wants work of any kind in the engineering line; five years' experience, land surveys, canal, roads, sewers and street paving. P. W. 76, Eng. News.

CIVIL ENGINEER, 45, now employed, is desirous of obtaining position in charge of construction with large company; experience includes railroad location, maintenance-of-way and construction, both steam and electric; general municipal work, with very large sewer design and construction work; highway construction; sewage-disposal experimentation and practice; drawing of specifications of many kinds; organization of construction work; planning records of cost for control purposes; field of work has extended from Atlantic to Pacific and from British Columbia to Central Venezuela; prefers local work, but will go abroad; has good working knowledge of Spanish. P. W. 132, Eng. News.

CIVIL ENGINEER, 25, graduate, three years' experience, open for engagement, field or office; railroad construction preferred; employed at present. P. W. 143, Eng. News.

TECHNICAL GRADUATE, 24, three years' experience with general contractor, estimating, construction and cost keeping; salary secondary. P. W. 144, Eng. News.

CIVIL ENGINEER, graduate, two years' experience, one year surveying, one year construction work (highway and reinforced-concrete bridge), fair draftsman, wishes permanent position with engineering concern; willing to start at the bottom. P. W. 142, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT; 12 years continuous charge of engineering and construction work, mostly railroad; reinforced concrete a specialty; designing, estimating, etc.; experience in municipal work; executive ability; legal training; business education; references; moderate salary; just finished some work in Canada and available at any time for any location. For list of special training and experience address P. W. 125, Eng. News, Chicago.

CIVIL ENGINEER, 17 years' experience, surveys and construction railways and hydraulic development; good draftsman; speak Spanish. P. W. 122, Eng. News.

GRADUATE CIVIL ENGINEER, 12 years' experience in railroads, municipal, hydraulic and frog and switch work, desires position in the East. P. W. 975, Eng. News, Chicago.

CIVIL ENGINEER, graduate, married, seven years' experience field and office in mines, property, surveys, railroad maintenance, steel works, bridges and road construction; references; location immaterial. P. W. 120, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER, formerly chief designer and checker, wants responsible position. P. W. 148, Eng. News.

STRUCTURAL ENGINEER, graduate, M. Am. Soc. C. E., expert designer of steel and reinforced concrete for industrial buildings, tall office buildings and bridges; good executive and personality. P. W. 63, Eng. News.

Surveyors

I. C. S. GRADUATE, 20, two years' experience in surveying, drafting; moderate salary. C. E. Norcross, Pemberton, N. J.

INSTRUMENTMAN, eight years' experience, three tropics, go anywhere. Will pay bonus. P. W. 110, Eng. News.

AS CHAINMAN OR RODMAN by student of American School of Corespondence. P. W. 135, Eng. News, Chicago.

SURVEYOR AND DRAFTSMAN; special track work, steam and electric, city and interurban construction, municipal improvements. P. W. 138, Eng. News.

Draftsmen

FIRST CLASS STRUCTURAL DRAFTSMAN; 12 years' experience detailing, estimating, checking, squadman; all lines work; best reference; desires position. P. W. 56, Eng. News.

ENGINEER AND DRAFTSMAN, 33, ten years' experience field and office work, estimating, designing and installing, building bridges, reinforced concrete and steel and general construction. P. W. 146, Eng. News.

DRAFTSMAN, 27, technical; 10 years' experience mechanical, electrical, structural; neat letterer; capable designer. P. W. 121, Eng. News.

ENERGETIC AND AMBITIOUS YOUNG MAN, with knowledge of stenography and drafting, wishes position in office of engineer or contractor where conscientiousness and attention to duty will be appreciated. P. W. 145, Eng. News.

Superintendents, Etc.

SALES ENGINEER, experienced in design, selling, estimating installing power plants and heating systems desires connection with New York firm. Salary and commission. P. W. 112, Eng. News.

ENGINEER, resourceful designer; 12 years' experience along mechanical and structural lines; thorough theoretical knowledge; would invest some capital. P. W. 97, Eng. News, Chicago.

ENGINEER SALESMAN, experienced also in machine shop and drafting; energetic, ambitious and intelligent. P. W. 124, Eng. News.

ENGINEER AND CONTRACTOR having thorough experience on bridge and building work; experienced on designing, estimating and construction of steel and concrete work; expert on steel fabrication; have been in charge of a large amount of contracting and construction; have wide acquaintance with engineers, architects and contractors in the Central States; experienced in organizing forces and systematizing work; have been successful in selling; have position but wish to change to one having more responsibility. P. W. 137, Eng. News, Chicago.

GENERAL OR CARPENTER FOREMAN, understanding all kinds of construction work; 10 years' experience; best of references. P. W. 129, Eng. News.

I. C. S. GRADUATE, 29, in reinforced-concrete engineering and structural drafting, desires position with engineer, contracting firm or architect; ambitious, sober and reliable; best references. P. W. 128, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN of paving; familiar with all kinds of pavements; 24 years' experience; reliable and temperate. P. W. 130, Eng. News.

GRADUATE ENGINEER, 29, six years' experience on extensive surveys, irrigation, railways, foundations, mining and valuation surveys; responsible position only; references. P. W. 131, Eng. News.

SUPERINTENDENT OF CONSTRUCTION; 15 years' experience on asphalt, brick, granite, wood block, road and concrete construction. P. W. 133, Eng. News.

GENERAL FOREMAN; 15 years' experience on track, paving and concrete construction. P. W. 134, Eng. News.

CONTRACTOR'S ENGINEER, estimator, general building construction, reinforced concrete, steel, masonry, timber, wants position; 10 years' experience; A-1 references. P. W. 139, Eng. News.

SALESMAN with nine years' traveling experience and wide acquaintance among architects, contractors and material supply dealers throughout the United States, desires position as district manager for manufacturer of specialty or staple building line; Central or Western location preferable; would be willing to travel part of time if necessary. P. W. 117, Eng. News, Chicago.

ESTIMATOR, general building construction, desires position New York City; 14 years' experience. P. W. 119, Eng. News.

POSITIONS OPEN

YOUNG GRADUATE ENGINEER having had at least one year's experience in the making of structural steel shop drawings, to learn designing a special class of structures; moderate salary. P. 127, Eng. News.

Civil-Service Opportunities

Competitive examinations for the civil-service positions named below will be held on or up to the dates given. For detailed information, write the addresses specified.

SURVEYOR-DRAFTSMAN (male), $1200-$1500; examination Apr. 28-29; for vacancy in the Forest Service, Dept. of Agriculture, Washington, D. C., or vacancies as they occur in other positions requiring similar qualifications. Write to the United States Civil Service Commission, Washington, D. C., for Circular No. 260 and Application Form 1312.

HULL-DRAFTSMAN (male), $1800; examination Apr. 28-29; for vacancy in office of Chief of Engineers, War Dept., Washington, D. C., or vacancies as they occur in other positions requiring similar qualifications. Write to the United States Civil Service Commission, Washington, D. C., for Circular No. 269 and Application Form No. 1312.

ENGINEER (with knowledge of sewage disposal)—(male) —$4000; examination Apr. 20, Room 1400, Municipal Building, by Municipal Civil Service Commission; to continue work of the Metropolitan Sewage Commission.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

MECHANICAL ENGINEER, broad gauge executive, direct force 600-700 hands, supervise designing and purchasing; in the manufacturing of small machine; salary $3000-$6000, depending on previous results obtained. Write fully in confidence, giving details and best time interview officials in New York. Bowtell's Business Brain Bureau, 170 Broadway, New York.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

CONTRACTORS or others employing laborers, skilled or unskilled. We supply laborers from coast to coast. No order too small or too large. Trial order will convince you. Maurice E. Finn's Labor Agency, largest in New England, 27 Washington St., Boston, Mass.

LABORERS of all nationalities furnished to contractors, railroad companies, etc., absolutely free of charge. A trial solicited. Branches throughout the United States. Savoy Labor Agency, 260 Eighth Ave., New York. (Telephone Chelsea 5333.)

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

WANTED

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

HIGH-GRADE RESPONSIBLE SALES ENGINEER to represent us in different districts on commission basis; our equipment sells to power plants, architects and manufacturing industries; wide field rapidly growing; average sale $1000; applicant must be acquainted with engineers and architects in his district and have three years' selling experience; state age, value of yearly sales, what lines you are now handling; an excellent opportunity to get a live profitable account. Address "A. G. E.," 60 Arch St., Room 503, Boston, Mass.

FOR SALE

FOR SALE—"Eng. News," Vols. 31 to 70, bound, Vol. 71 to date, unbound; all prime condition; best offer takes. F. S. 116, Eng. News.

CORRESPONDENCE COURSES

of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

FOR ENGINEERS

The personal attention of the engineer who prepared these courses is given to all the work submitted by each subscriber and therefore the membership is limited.
Two separate courses are offered, under the ollowing designations,—

STRUCTURAL STEEL DESIGNING
REINFORCED CONCRETE ENGINEERING

These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter taken from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

and save years spent in mis-directed efforts which are a necessary result of trying to acquire experience without the direct aid and assistance of an engineer properly experienced in such work.

Address M. 966, Engineering News

For Sale
Second Hand Equipment

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

Equipment Wanted items appear at the end of this list.

N

ADVERTISERS NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

AMERICAN Construction Co., 108 N. Delaware St., Indianapolis, Ind.—All equipment listed as good as new, used only short time.
BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOLAN, John F., 50 Church St., New York, N. Y.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
JENNISON-Wright Co., The, 313 Huron St., Toledo, O.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal & Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

BELT CONVEYORS

1—14" and 1—16" 50' centers.—GIVIN.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

2 New Marine, 10x11′; prompt delivery.—WHITNEY.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

96—42 cu.ft. Stuebner tip-over buckets.—SCHMIDT.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed. —GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

CARS

[Standard Gauge]

45—80,000 lb. flat cars, cheap.—WHITNEY.

[36″ Gauge]

50—4 yd. 1-way So. Baltimore, $50 each. 8—K. & J. 3-yd. 2-way, overhauled, $70 each.—GRIMSHAW.

[24″ Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15′ elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

1 Portable Champion No. 3 jaw stone with elevators.—JENNISON.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

DRILLS

6 Ingersoll, type F-24, and 2 class "C" Little Giant rock drills.—BECKWITH.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

EXCAVATORS

Bucyrus drag line, class B.—DOLAN.

GENERATORS

Western Electric 100 K.W. dir, con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

GRADERS, ELEVATING

1 Austin.—AMERICAN.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36″ Gauge]

10 10x16″ Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14″ Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

20 ton, 11x16″ Davenport, built 1907, $1175.—GRIMSHAW.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50′ boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21′ boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20′ boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

50 H.P. crane for rent.—THE TERRY & TENCH CO., INC., Grand Central Terminal, New York, N. Y.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

1 Foote No. 3 continuous mixer.—JENNISON.

2 Foote continuous mixers.—AMERICAN.

PILING, SHEET STEEL

165 pcs. Lackawanna 14″ arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

5000 pcs. Lackawanna and Carnegie. What are your needs?—GRIMSHAW.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

300,000 rethreaded wrought, sizes ¾″ to 24″.—MARINE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

RAILS

40 ton of 35 lb. with fish plates.—PIPE.

20,000 ft. 24″ gauge 20 lb. portable track.—SCHMIDT.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1—5 ton Kelley tandem and 1—7 ton Chicago tandem, both rollers have been used but upon two jobs and are in most excellent condition.—Address the AMERICAN NATIONAL BANK, Findlay, Ohio.

Macadam and asphalt roller; also roller renting business located in N. Y. City.—F. S. 33, Eng. News.

1 Case 10 ton 3 wheel roller and 1 Buffalo-Pitts 10 ton 3 wheel.—JENNISON.

10-ton macadam roller recently overhauled. Low price for quick sale. Write F. S. 31, Eng. News.

Buffalo road roller.—DOLAN.

1—8 ton Austin gasoline, perfect condition, rare bargain. —B. G. COON CONSTRUCTION CO., 274 Union St., Luzerne, Pa.

Contracts to Be Let

Bids received until May 4, 1915.

Bridge Repairs

Northampton, Mass.

Sealed bids for reconstructing two piers and also for repairing the superstructure of the bridge across the Connecticut River between Northampton and Hadley, Mass., will be received by the Hampshire County Commissioners at their office, Hampshire County Court House, Northampton, Mass., until twelve o'clock M., on May 4, 1915, and at that time and place will be publicly opened and read.

No bid will be received unless accompanied by a properly certified check for five hundred ($500.00) dollars, payable to the order of "Treasurer of Hampshire County." Each check will be returned to the bidder unless forfeited, as hereinafter provided. All such deposits, except that of the successful bidders, will be returned to the persons making the same within ten days after the contract is awarded.

The contract must be signed and the bond furnished within six days (Sunday excepted) after the date of the notification by the Commission of the acceptance of the proposal and the readiness of the contract for signature, and in case of the failure of the bidder after such notification to execute the contract and furnish the bond within such time, the proposal will be considered abandoned, and the certified check accompanying the proposal shall be forfeited to the County.

Plans can be seen at the office of the Commission, Northampton, Mass., or at the office of the Engineers, 79 Milk Street, Boston, Mass.

The Commission reserves the right to reject any and all bids and reserves the right to award the contract as it deems for the best interest of Hampshire County.

FRANK A. BROOKS, Chairman,
FRANK M. SIBLEY,
CLARENCE E. HODGKINS,
Hampshire County Commissioners.
J. R. WORCESTER & CO., Engineers,
79 Milk Street, Boston, Mass.

⁂

Bids received until May 3, 1915.

Notice to Bridge and Concrete Contractors

Hamlin, West Va.

Sealed bids will be received until 2 o'clock P.M. May 3, 1915, by the Commissioners of the Lincoln County Court of Lincoln County, West Va., at Hamlin, West Va., the County Seat of said County, and at the County Clerk's Office,

FOR THE CONSTRUCTION OF A STEEL BRIDGE ACROSS GUYANDOTTE RIVER AND THE CONCRETE WORK FOR SAME.

For plans and specifications, address Oliver & Maupin, Engineers, Huntington, West Va.

The said Commissioners reserve the right to reject any and all bids.

A. C. PARSONS, President.
By ALBERT F. BLACK, Clerk.
Lincoln County Court.

⁂

Bids received until May 15, 1915.

Rock Tunnel

Drums, Butler Township, Pa.

Bids will be received for driving a rock tunnel, minimum cross section to be 7'x9', with a ditch 3' wide by 2' deep; approximate length of tunnel, 19,500 feet. The south portal will be in the Buck Mountain vein gangway of Hazle Mines, and the north portal of the tunnel will be on the Little Nescopeck Creek, near the village of Drums, Butler Township, Luzerne County, Pennsylvania.

All bids will be closed May 15, 1915.

Complete plans and specifications can be seen at the office of the Vice President & General Manager of the Lehigh Valley Coal Company, No. 133 North River Street, Wilkes-Barre, Pennsylvania.

Bids received until Apr. 26, 1915.

Bituminous Material

Albany, N. Y.

State of New York—Office of the State Commission of Highways, Albany, N. Y.—Pursuant to provisions of Chapter 30, Laws of 1909 as amended by Chapter 646, Laws of 1911, and Chapter 80, Laws of 1913, sealed proposals will be received by the undersigned at the office of the State Commission of Highways, 55 Lancaster Street, Albany, N. Y., at 1 o'clock P.M. on Monday, April 26, 1915, for furnishing and delivering bituminous materials "A" and "T" in the different counties comprising Divisions Nos. 1, 2, 3, 4, 5, 6, 7, 8 and 9. Tables and specifications showing the approximate quantities may be seen and obtained at the office of the Commission in Albany, N. Y. The special attention of bidders is called to the fact that separate proposals will be received for each Division for furnishing and delivering bituminous materials "A" and "T" as designated in detail by divisions on tables prepared for that purpose.

Each proposal must be accompanied by a draft or certified check issued by a National or State bank in good credit within the State and payable at sight to the order of the State Commission of Highways, for an amount equal to at least 5 per centum of the amount of the proposal which such draft or check accompanies. This draft or check will be held by the Commission until the contract is executed and the bond is filed.

The successful bidder on each proposal will be required to give a bond for 50 per centum of the amount of the contract, such bond to be executed by a Surety Company to be approved by the Commission. The bond is for the purpose of insuring the delivery of the bituminous material as called for by the Commission.

The right is reserved to reject any or all bids.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

⁂

Bids received until May 11, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Tuesday, the 11th day of May, 1915, for the repair of highways in the following counties:

Cattaraugus & Chautauqua (one contract—surface application 33.38 miles); Cayuga (one contract—surface treatment, 11.24 miles); Cortland County (one contract—surface treatment, 11.22 miles); Dutchess (two contracts—surface treatment, 23.95 miles); Erie (one contract—surface treatment, 22.79 miles); Lewis (one contract—surface treatment, 15.77 miles); Ontario & Livingston (one contract—surface treatment, 22.33 miles); Monroe (two contracts—surface treatment, 41.41 miles); Niagara (two contracts—surface treatment, 52.57 miles); Ontario (one contract—surface treatment, 18.42 miles); Orleans (one contract—surface treatment, 20.54 miles); Onondaga (one contract—surface treatment, 14.91 miles); Rensselaer (one contract—surface treatment, 4.14 miles); Suffolk (one contract—surface treatment, 7.54 miles); Tompkins (one contract—surface treatment, 4.49 miles); Westchester (one contract—surface treatment, 25.01 miles).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

Bids received until May 1, 1915.

Sewers and Water-Works

Laurel, Md.

SEALED PROPOSALS, addressed to George W. Waters, Jr., Mayor, Laurel, Md., and marked "Sewer and Water Bids," will be received until two P.M., May 1st, 1915, for furnishing materials and constructing a complete system of sanitary sewers, extensions to water mains and other water-works improvements, comprising the following:

Approximately eight and seven-tenths miles of Sewers, 8-inch to 15-inch in diameter.
Approximately three and one-quarter miles of Water Mains, 2-inch to 8-inch in diameter.
Sewage Disposal Plant.
Compressed Air Sewage Ejectors.
Rapid Sand Filter Plant for Water-works, comprising Building and Equipment.
Motor Driven Pumping Machinery.

Bids will be received for the entire work or for any portion thereof.

Plans and specifications may be seen at the Collector's office, Laurel, Md., or at the office of Harry Stevens, Consulting Engineer, Union Trust Building, Washington, D. C., or may be obtained from the Engineer for Five ($5.00) Dollars per set.

Right is reserved to reject any or all bids or to accept any bid for the whole or any portion of the work.

For the information of prospective bidders, the Town has the necessary funds for the above work deposited in the bank.

GEORGE W. WATERS, JR., Mayor.
HARRY STEVENS, Engineer.

⁂

Bids received until Apr. 28, 1915.

Fire Doors and Steel Rolling Doors

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans at their office, Suite 200 New Orleans Court Building, until April 28th, at eight o'clock p.m., and then publicly opened, for the furnishing and installing of Fire Doors and Steel Rolling Doors, etc., for the cotton warehouses and terminal now under construction located on the East Bank of the Mississippi River near Valence Street.

The Contractor will be required to furnish a bond to the amount of one-quarter of the contract price, but not less than Thirty Thousand ($30,000.00) Dollars. Payments monthly to the extent of ninety (90%) per cent. of the Engineers' estimate of the work accomplished. Plans and specifications may be inspected at the office of Ford, Bacon & Davis, Engineers, No. 921 Canal Street, New Orleans, Louisiana, by whom full sets will be furnished to prospective bidders on deposit of Twenty-five ($25.00) Dollars. This amount will be refunded to all bidders who submit proposals and return said set in good condition to the Engineers. To bidders who do not submit proposal, Fifteen ($15.00) Dollars will be refunded upon return of plans above.

The right is reserved to reject any and all bids.

(Signed) ERNEST M. LOEB, President.

⁂

Bids received until Apr. 30, 1915.

Proposals for Concrete Wall

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Friday, April 30th, 1915, at 12 o'clock Noon, for furnishing all labor and materials and erecting a concrete Retaining Wall along Solomon's Creek between Franklin and Vulcan Streets in said City. Bids to be submitted in accordance with specifications, copies of which may be had upon application to B. K. Finch, City Engineer, upon payment to him of the sum of $5.00, which will be refunded to bidders, provided specifications are returned to the City Engineer on or before May 5th, 1915. Proposals to be endorsed "Proposals for Retaining Wall" and must be accompanied by a certified check in the sum of $500.00 and to be addressed to Fred H. Gates, City Clerk. The City Council reserves the right to reject any or all bids received.

C. N. LOVELAND,
Superintendent Department Streets and Public Improvements.

Bids received until May 25, 1915.

Brick, Segment Block and Terra Cotta Pipe Sewers

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Tuesday, May 25th, 1915, at 12 o'clock, Noon, for furnishing all labor and materials and constructing brick, segment block and terra cotta pipe sewers in the City of Wilkes-Barre in accordance with plans and specifications, copies of which may be had upon application to B. K. FINCH, City Engineer, upon payment to him of the sum of Five Dollars ($5), which will be refuned to bidders, provided said specifications are returned to the City Engineer on or before June 1, 1915. Proposals to be endorsed "Proposals for Sewer Construction" and addressed to Fred H. Gates, City Clerk, and must be accompanied by a certified bank check in the sum of One Thousand Dollars ($1,000), conditioned upon the successful bidder entering into a contract for the completion of said work. The firms who submit bids to those bidding on the sewer, to furnish to said bidders vitrified segment sewer tile, must file with the City Clerk, on or before May 25th, 1915, at 12 o'clock Noon, a Surety Company Bond in the sum of Ten Thousand Dollars ($10,000) guaranteeing said tile for a period of five years from the date of the completion of the sewer. The City Council reserves the right to reject any or all of the bids.

C. N. LOVELAND,
Superintendent of the Department of Streets and Public Improvements.

⁂

Bids received until May 5, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Wednesday, May 5th, 1915, for the improvement of Highways in the following counties:

Allegany, 2 highways (4.00; 8.64); Cattaraugus (approx. length 4.43); Chautauqua, 2 highways (3.99; 1.59); Dutchess (approx. length .88); Franklin (approx. length 8.81); Hamilton (approx. length 5.01); Herkimer, 3 highways (1.81; 3.60; 5.63); Jefferson (approx. length 7.27); Livingston, 3 highways (3.51; 3.96; 2.18); St. Lawrence, 3 highways (5.66; 9.09; 10.85); Schenectady (approx. length 5.62); Schoharie (approx. length 4.99).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is caled to "INFORMATION FOR BIDDERS" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

⁂

Bids received until May 3, 1915.

Notice to Bridge Contractors

Cobleskill, N. Y.

Sealed bids and proposals will be received by the undersigned at the office of the Town Clerk in the Village and Town of Cobleskill, Schoharie County, N. Y., until One o'clock in the afternoon of May 3rd, 1915, at which place and hour they will be publicly opened and read, for furnishing material in constructing a new bridge over the Cobleskill Creek near the residence of Foster Barner in said Village and Town.

Detailed plans and specifications of said bridge may be seen and examined at the office of the Town Clerk in said Village and Town, and at the State Highway Commission's Office at Albany, N. Y.

Each bid of proposal must be addressed to Ogden Eldredge, Town Clerk, Cobleskill, Schoharie County, N. Y.

The right to reject any and all bids is hereby reserved.

LORENZO J. GORDON,
Town Superintendent of Highways of the Town of Cobleskill, N. Y.

Dated April 9th, 1915.

Bids received until May 5, 1915.

Steam Turbine-Driven Centrifugal Pump

Kansas City, Mo.

SEALED PROPOSALS will be received by the Purchasing Agent of Kansas City, Missouri, at the office of the Purchasing Agent, Second Floor, City Hall, until two o'clock p.m. of Wednesday, May 5th, 1915, for the designing, construction, delivery and erection of a steam turbine, reduction gear, centrifugal pumping unit of a capacity to pump continuously twenty (20) million U. S. gallons of water per twenty-four (24) hours, against a total combined head of three hundred and sixty (360) feet and steam pressure of one hundred and sixty-five (165) pounds per square inch at throttle; together with all machinery, tools and appurtenances necessary; all in accordance with the plans and general specifications on file in the office of the Chief Engineer of the Water Department.

Each bidder shall deposit with the City Comptroller a certified check in the amount of Seven Hundred and Fifty Dollars ($750.00), payable to the City Comptroller of Kansas City, Missouri, and accompany his bid with the Comptroller's receipt therefor.

The certified check referred to in the Advertisement shall be submitted by each bidder as a guaranty that the bidder will, within ten (10) days after receiving the award of a contract, file with the City a satisfactory bond to the amount of Twenty-five Thousand Dollars ($25,000.00) and will execute the contract.

The Board of Fire and Water Commissioners does not bind itself to accept the lowest or any bid offered, and reserves the right to reject any and all bids and to waive any informality when it seems to be to the interest of Kansas City, Missouri, to do so.

J. P. LANGAN, Purchasing Agent.
BURTON LOWTHER, Chief Engineer.

⁂

Bids received until Apr. 29, 1915.

Furnishing Stone

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Thursday, April 29th, 1915, for furnishing stone on the following contracts:

Albany 2 (4020 tons); Allegany (820 tons); Broome 2 (2540 tons); Cattaraugus and Chautauqua (2450 tons); Cayuga (491 tons); Chemung (1380 tons); Chenango (2645 tons); Cortland (1010 tons); Delaware and Schoharie (1540 tons); Erie 2 (8700 tons); Niagara (1400 tons); Onondaga (1165 tons); Otsego (790 tons); Rensselaer 2 (1415 cu.yds.); Rensselaer (1340 tons); Saratoga (1650 tons); Schenectady (2025 tons); Schoharie (391 cu.yds.); Schuyler (400 tons); Seneca (355 tons); Sullivan (265 tons); Tioga (780 tons); Tompkins (2465 tons); Wayne (605 tons); Yates (250 tons); Oswego (755 tons).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, New York, and also at the office of the Division Engineer in whose division the stone is to be furnished. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The special attention of bidders is called to the "Information for Bidders" in the itemized proposal, specifications and contract-agreement.

The right is reserved to reject any or all bids.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

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Bids received until May 18, 1915.

Public Wharf

City of Dunkirk, New York, April 17, 1915.

Sealed proposals for construction of a public wharf at Dunkirk, N. Y., will be received until 8 P.M., Eastern time, May 18th, 1915, and then opened publicly. Right is reserved to reject any or all bids. Plans and specifications are on file and information may be had on application to the undersigned. Specifications will be forwarded to applicants. To insure return of plans, a deposit of $20 is required for plans mailed, which sum will be returned to applicant upon receipt of plans.

A. D. TOOMEY, City Clerk.

Bids received until Apr. 29, 1915.

Sewers and Bridge

DEPARTMENT OF PUBLIC WORKS
Office, 216 City Hall,
Philadelphia, April 12, 1915.

Sealed Proposals, endorsed "Bids for Branch sewers, Main sewers, Repairs to old sewer, Inlets, etc., Shafting and Belt Mule Drive and Bridge," and addressed to the undersigned, at Room 216 City Hall, will be received until 12 o'clock noon, on Thursday, April 29th, 1915, for

Schedule A. Branch sewers.
" B. Main sewers.
" C. Repairs to old sewer (Thompson St.).
" D. Inlets, laterals, etc.
" E. Shafting and Belt Mule Drive over Engine No. 1 at the Pennypack Creek Pumping Station.
" F. Bridge on line of 58th street over Philadelphia and Baltimore Central Railroad.

Plans for the above work will be exhibited in the office of Bureau of Surveys, Philadelphia.

Specifications and blank forms upon which bids must be made will be furnished upon application to the Chief Engineer, Room 416, City Hall.

Bidders must be skilled and regularly engaged in the class of work bid for.

Bids will be opened and read in Room 225 City Hall, at noon, on date above mentioned.

No bid will be considered unless accompanied by a certificate from the City Solicitor, that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81, West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city.

M. L. COOKE, Director.

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Bids received until May 5, 1915.

Proposals for Lift Bridge

Elizabeth, N. J.

Sealed proposals will be received by the Committee of the Board of Chosen Freeholders of Union County at the Court House, Elizabeth, N. J., at 2:00 P.M. Wednesday, May 5, 1915, for the following described work.

New steel lift bridge over the Elizabeth river at Baltic Street and Trenton Avenue, Elizabeth, N. J. The channel clearance to be 60 feet and the length of moving leaf 85 feet. The width of roadway to be 24 feet and the width of each sidewalk 5 feet, the bridge to consist of a single leaf pony truss Strauss Trunnion Bascule Bridge as designed by the Strauss-Bascule Bridge Co. of 104 South Michigan Avenue, Chicago, Ill. Each bid to cover the entire bridge complete including foundations, superstructure, approaches, excavations and embankments, as set forth in the specifications.

Each bid must be accompanied with a certified check for $1,000.00 as a guarantee of good faith, as required by the specifications.

Plans and specifications for this work may be examined at the office of the County Engineer of Union County, 120 Broad Street, Elizabeth, N. J.

The right is reserved by the Committee to reject any or all bids as may be deemed best for the interests of the County of Union.

JACOB L. BAUER, County Engineer.

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Bids received until May 5, 1915.

Notice to Bridge Contractors

Cumberland, Md.

Bids will be received by the Mayor and City Council of Cumberland, Md., up to 9:30 o'clock A.M., May 5th, 1915, for the construction of a concrete twin arch bridge at Market Street over Wills Creek, clear span of each 65 feet.

Plans and specifications can be procured at office of City Engineer, City Hall, on deposit of ten dollars ($10.00), to be refunded if same be returned in good condition.

The right is reserved to reject any and all bids if not satisfactory to the Mayor and City Council.

JAMES P. GAFFNEY, City Engineer.

Bids received until May 5, 1915.

Grasse River Bridge

Canton, N. Y.

Sealed proposals will be received at the office of the Town Clerk of the Town of Canton, St. Lawrence County, New York, until the 5th day of May, 1915, at 2 P.M., for the building of a concrete-steel arch bridge over the Grasse River in the Village of Canton, and will be publicly opened and read at that time.

Plans and specifications may be seen and forms of proposal may be obtained at the office of the Town Clerk of Canton, St. Lawrence County, N. Y., and also at the office of the Concrete-Steel Engineering Company, Park Row Building, New York, N. Y. Copies of the plans and specifications may be obtained from the Concrete-Steel Engineering Co., upon making a deposit of $10.00, which will be refunded upon the return of the plans and specifications in good order.

Each proposal must be accompanied by an unconditional certified check on a National Bank for ten (10%) per cent. of the contract price, made payable to the order of Ceylon G. Chaney, Town Supervisor, as evidence of good faith, and to be forfeited to the Town of Canton as liquidated damages in case of failure on the part of the bidder to enter into a contract for the execution of the work, and to furnish satisfactory surety bond as hereinafter stipulated. Bidder's certified checks will be returned after consideration of the bids, and the check of the successful bidder will be returned as soon as the contract is signed.

Proposals will be entertained only from parties who have at their command the necessary capital, plant and experience for properly doing such work.

Envelopes containing proposals must have endorsed thereon—"Proposal for Grasse River Bridge at Canton, N. Y."

The right is reserved by the Town to accept any proposal, or to reject any or all proposals.

TOWN OF CANTON
By **CEYLON G. CHANEY**, Supervisor.
H. M. BARBER, Town Clerk.

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Bids received until May 14, 1915.

Sewage Collecting System and Sewage Treatment Works

Huntington, Long Island, N. Y.

Sealed proposals for furnishing all labor and materials for constructing a system of sewers and a sewage disposal works in the Sewer District of Huntington, N. Y., addressed to the Sewer Commissioners of the Sewer District of Huntington, N. Y., and endorsed "Proposal for Constructing Sewers and Sewage Disposal Works," will be received by the Sewer Commissioners at their office in the Town Hall, Huntington, N. Y., until 2 o'clock P.M. on May 14, 1915.

The proposed sewer system consists of some 15 miles of sewers, ranging in size from 8 to 15 inches in diameter and for the most part of vitrified pipe with bituminous joints. The sewage treatment works consists of settling tanks of the Imhoff type, divided into three sections, each about 50 feet long and 11.5 feet wide, with suitable sludge compartments and sludge-drying beds, and other appurtenances, including a centrifugal pump operated by a gasoline engine.

Proposals must be made on the blank form of proposal bound with the contract and specifications. Plans and specifications may be obtained from George W. Fuller, Engineer, 170 Broadway, New York City, or C. M. Felt, Secretary, Sewer Commissioners at their office in the Town Hall, Huntington, will be refunded if said plans and specifications are returned in good condition within thirty days after bids have been received and acted upon by the said Sewer Commissioners.

Proposals must be accompanied by a certified check on a national bank drawn to the order of the Sewer Commissioners of Huntington, N. Y., in the sum of $3,000. The bidder to whom the contract is awarded will be required to execute the same and furnish a surety bond in the sum of 50 per cent. of the amount of the contract within ten days, Sundays excepted, after receiving final notice of the award. The bond shall be satisfactory to the Sewer Commissioners both as to form and surety. The Sewer Commissioners reserve the right to reject any and all bids.

C. M. FELT, Secretary.

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U. S. ENGINEER OFFICE, Louisville, Ky., April 12, 1915.—Sealed proposals for two steel dump scows will be received here until 12:00 noon, Central Time, May 13, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

Bids received until May 21, 1915.

Bridges

Rome, Ga.

Sealed proposals will be received by the Board of Commissioners of Roads & Revenue, Floyd County, Ga., until twelve o'clock noon of May 21st, 1915, for the construction of the following bridges, with the City of Rome, said County.

(a) Second Avenue Bridge—A reinforced concrete arch bridge, forty foot roadway and two eight foot sidewalks, total length of about three hundred and seventy-six (376) ft.

(b) Reinforced concrete arch bridge at Broad Street, forty foot roadway and two eight foot sidewalks, total length of about four hundred and seven (407) feet.

(c) Steel truss bridge on concrete substructure, at Fifth Avenue, with a thirty-six and one-half foot roadway and two eight foot sidewalks, total length three hundred and sixty-seven (367) feet. This bridge will have a movable channel span with a channel clearance of about one hundred feet.

Certified check for One Thousand Dollars must accompany each bid.

Instructions to bidders, plans, specifications, forms of contracts, proposal and bond may be seen in the offices of the Consulting Engineers, Greiner & Whitman, Fidelity Building, Baltimore, Md., W. C. Spiker, Hurt Building, Atlanta, Ga., and in the office of Kieffer Lindsey, County Engineer, at Rome, Ga.

Contractors can obtain complete sets of plans, specifications, etc., from W. C. Spiker, for the sum of $5.00 per set for the Fifth Avenue Bridge and $5.00 per set for the Second Avenue and Broad Street bridges combined, and the Board reserves the right to reject any or all proposals and to make the award for either bridge separately or all bridges together, according to the best interest of the County.

After bidding on plans as above stated bidders may also submit alternate designs and specifications with their bids thereon, such alternate designs to be approved by the County Consulting Engineers. This April 19th, 1915.

J. G. POLLOCK, Commissioner.
C. L. CONN, Commissioner.
W. N. HORTON, Commissioner.
P. C. GRIFFIN, Commissioner.
C. M. YOUNG, Commissioner.
J. S. DAVIS, Commissioner.

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Bids received until May 10, 1915.

Sewer Proposals

City of Bridgeport, Connecticut.

Proposals will be received by the Paving & Sewer Commission of the City of Bridgeport, Conn., until Monday, May 10th, 1915, at 8:00 o'clock P.M., at the office of its secretary, Room No. 22, City Hall, in said city, for the construction of two sewers of approximate lengths and sizes as follows:

IN SEAVIEW AVE.
1300 feet of 24"
1150 feet of 22"
1550 feet of 20"

IN HOUSATONIC AVENUE.
1620 feet of 48"
1880 feet of 45"
200 feet of 42"
1825 feet of 12"
66 feet of 20"

Each bidder will be required to accompany his bid with a certified check, drawn to the order of the Treasurer of the City of Bridgeport, for five per cent. of the cost of the work, which check will be returned immediately upon the execution of the contract and the furnishing of satisfactory surety by the successful bidder.

The Commission reserves the right to reject any and all proposals.

Profiles may be seen and copies of specifications and proposal blanks obtained at the office of Alfred H. Terry, City Engineer, City Hall, to whom all communications should be addressed.

BERNARD KEATING,
Secretary of Paving & Sewer Commission.

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U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for dredging ship channel in Lake St. Clair, Mich., will be received at this office until 12 noon, April 28, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 10, 1915.—Sealed proposals for constructing about 9000 feet standard revetment on Missouri River, about 24 miles below Kansas City, and two miles from Atherton, will be received at this office until 12 M., May 10, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

Bids received until May 10, 1915.

Jail

Greenville, S. C., April 19, 1915.

Bids will be received until twelve o'clock A.M., May 10th, 1915, for the erection and completion of a jail for the County of Greenville, Greenville, S. C., in accordance with plans and specifications prepared by Joe T. Lawrence, Architect, Greenville, S. C., exclusive of steel work.

Bids will also be received at the same time and place for all steel work used in the above mentioned building.

Plans may be had upon application to the Architect, said application to be accompanied by a certified check for ten dollars as a guarantee for the prompt return of said plans and specifications.

All bids must be accompanied by a certified check for five hundred dollars ($500.00), made payable to J. I. West, Chm. of Jail Commission.

For any further information address the commissioners or Joe T. Lawrence, Greenville, S. C.

J. I. WEST, Chairman.
JNO. P. LOFTIS.
B. F. PERRY, JR.
Greenville County Jail Commission.

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U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., March 27, 1915.—Sealed proposals for constructing storehouses and a boat shed on Mill Rock at Hell Gate in East River, N. Y., will be received at this office until 12 M., April 26, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Eng'rs.

PROPOSALS FOR STORM-WARNING LANTERNS—U. S. Department of Agriculture, Washington, D. C., April 15, 1915. —Sealed proposals for furnishing storm-warning lanterns, as specified, f.o.b. factory, will be received here until noon, May 18, 1915, and then opened. Information furnished upon application to the Chief of Weather Bureau. Samples of the lanterns proposed to be furnished, to be submitted in connection with bid. Envelopes containing proposals should be indorsed "Proposals for Storm-warning Lanterns," and addressed to Chief, U. S. Weather Bureau, Department of Agriculture, Washington, D. C.

PROPOSALS FOR A GUARD HOUSE AND BAKERY. Office, Depot Quartermaster, El Paso, Texas, March 29, 1915.—Sealed proposals for the construction, plumbing, heating, electric wiring and fixtures, of a guard House and Bakery, at Fort Bliss, Texas, will be received in this office until 11:00 A.M., April 30, 1915, and then opened. Information furnished on application. Applications for plans, etc., should be accompanied by a certified check for $10.00 to insure their return. Envelopes containing proposals should be indorsed "Proposals for Guard House and Bakery, Fort Bliss, Texas," and addressed Major William Elliott, Quartermaster Corps, U. S. Army.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 20, 1915. —Sealed proposals for constructing about 2250 feet standard 3-row timber dike, and about 12,000 feet standard revetment on Missouri River, about 163 miles below Kansas City, and 9 miles below Glasgow, will be received at this office until 12 M., May 20, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, Room 325 Custom House, New Orleans, La., Mar. 29, 1915—Sealed proposals for furnishing coal for United States plant from July 1, 1915, to June 30, 1916, will be received at this office until 11 A.M., May 3, 1915, and then publicly opened. Information on application. EDWARD H. SCHULZ, Maj., Engrs.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for constructing and placing two timber cribs and replacing with concrete, timber superstructure, breakwater at Harbor Beach, Michigan, will be received at this office until 12 noon, May 20, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, Louisville, Ky., April 19, 1915.—Sealed proposals for a Steel Hull for Dredge "Nolin River" will be received here until 12 noon, central time, May 19, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

U. S. ENGINEER OFFICE, Pittsburgh, Pa., April 21, 1915. —Sealed proposals for building two lockkeepers' houses at Dam No. 1, Monongahela River, will be received at this office until 12 M. (Eastern Standard Time), May 21, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., April 10, 1915.—Sealed proposals will be opened in this office at 3 p.m., May 18, 1915, for the construction complete (including mechanical equipment, lighting fixtures, and approaches) of the United States post office at Laurel, Miss. One-story-and-basement building; ground area 7,000 square feet; fireproof throughout, except roof; stone facing below first-floor line, brick facing with stone base and stone and marble trimmings above first-floor line; tile and composition roof, with wood and copper cornice. Drawings and specifications may be obtained from the custodian of site at Laurel, Miss., or at this office, in the discretion of the Supervising Architect. O. WENDEROTH, Supervising Architect.

Bids received until May 4, 1915.

Fences

SEALED BIDS will be received by the Board of Water Supply, at its offices, twenty-second floor, Municipal Building, Park Row, Centre and Chambers Streets, New York City, until 11 A.M. on Tuesday, May 4, 1915, for Contract 143, for furnishing and erecting about 15 miles of wire fence with concrete posts and short lengths of concrete and wood guard rails, and doing some concrete repair work and general cleaning up at the Ashokan reservoir. The work is located in the towns of Olive, Marbletown and Hurley, Ulster county, New York.

At the above place and time the bids will be publicly opened and read. Pamphlets containing information for bidders, and contract drawings can be obtained at the above address, at the office of the Secretary, by depositing the sum of ten dollars ($10) in cash or its equivalent for each pamphlet. For further particulars apply to the office of the Principal Assistant Engineer at the above address.

CHARLES STRAUSS, President,
CHARLES N. CHADWICK,
JOHN F. GALVIN,
Commissioners of the Board of Water Supply.
W. BRUCE COBB, Secretary.

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U. S. ENGINEER OFFICE, Kansas City, Mo., April 10, 1915. —Sealed proposals for constructing about 4,200 feet standard 3-row timber dike on Missouri River, about 12 and 20 miles below Kansas City, and about one-half mile below Cement City and near So. Liberty, will be received at this office until 12 M. May 10, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

DEPARTMENT OF THE INTERIOR, U. S. RECLAMATION SERVICE, Washington, D. C., April 17, 1915.—Sealed proposals will be received at the office of the United States Reclamation Service, Provo, Utah, until 2 o'clock P.M., May 19, 1915, for construction involving about 30,000 yards of canal excavation and 3,400 yards of reinforced concrete. The work is located near Payson City, Utah, on the San Pedro, Los Angeles and Salt Lake R.R. and the Tintic Branch of the Denver and Rio Grande R.R. For particulars, address the United States Reclamation Service, Provo, Utah, or Washington, D. C. A. P. DAVIS, Chief Engineer.

TREASURY DEPARTMENT, U. S. Coast Guard, Washington, D. C., April 12, 1915.—Sealed proposals will be received at this office until 2 o'clock P.M., of Thursday, May 20, 1915, and then publicly opened, for the construction of a rubble mound breakwater at the Marblehead Coast Guard Station, Marblehead, Ohio. Specifications and drawings, form of proposal, etc., and full information can be obtained upon application to the Superintendent, 10th District, Coast Guard, Buffalo, N. Y., the Keeper, Marblehead Coast Guard Station, Marblehead, Ohio, or to this office. E. P. BERTHOLF, Captain Commandant.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 20, 1915. —Sealed proposals for constructing about 5900 feet standard 3-row timber dike on Missouri River, about 50 and 53 miles below Kansas City, and 1 mile below Napoleon and 1 mile above Camden, will be received at this office until 12 M., May 20, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for construction of concrete masonry for fourth lock at Sault Ste. Marie, Mich., will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engrs.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for furnishing and placing stone riprap along lake face of main breakwater, Harbor Beach, Michigan, will be received at this office until 12 noon, May 19, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Colonel, Engineers.

U. S. ENGINEER OFFICE, Cincinnati, O., April 7, 1915.—Sealed proposals for furnishing and erecting steel lock gates for Dam No. 29, Ohio River, will be received at this office until 2 p.m., April 27, 1915, and then publicly opened. Information on application. H. JERVEY, Lt.-Col., Engrs.

U. S. ENGINEER OFFICE, Wheeling, W. Va., March 29, 1915.—Sealed proposals for furnishing and delivering one service boat, designated No. 10A3, for Lock No. 10, Kanawha River, W. Va., will be received at this office until 11 a.m. (Eastern time), April 29, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

DEPARTMENT OF THE INTERIOR, Washington, D. C., April 19, 1915.—Sealed proposals in duplicate will be received at this Department until 2 o'clock p.m., Tuesday, May 11, 1915, and then opened, for the furnishing of all labor and material (unless otherwise specified) which shall be required for rewiring the third floor and galleries of the Patent Office Building, Seventh and F Streets, N.W., Washington, D. C., and making all connections ready for service, in accordance with plans and specifications, copies of which may be obtained upon application to the chief clerk of the department. Proposals should be securely enveloped, marked "Proposal for rewiring third floor and galleries, Patent Office Building," and be addressed to the Secretary of the Interior. BO SWEENEY, Assistant Secretary.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

ENGINEER, graduate M. E., at present employed, desires position with opportunity for advancement; 2½ years' practical experience; age 26; go anywhere on permanent work. P. W. 140, Eng. News.

Civil Engineers

GRADUATE ENGINEER, married, wishes work of any kind; can fill any position from axeman to engineer-in-charge; good draftsman; eight years' excellent engineering experience; references. P. W. 118, Eng. News.

CIVIL ENGINEER, college graduate; five years' experience, design and construction, docks, bridges, surveys. P. W. 179, Eng. News.

GRADUATE CIVIL ENGINEER wants work of any kind in the engineering line; five years' experience, land surveys, canal, roads, sewers and street paving. P. W. 76, Eng. News.

CIVIL ENGINEER, 45, now employed, is desirous of obtaining position in charge of construction with large company; experience includes railroad location, maintenance-of-way and construction, both steam and electric; general municipal work, with very large sewer design and construction work; highway construction; sewage-disposal experimentation and practice; drawing of specifications of many kinds; organization of construction work; planning records of cost for control purposes; field of work has extended from Atlantic to Pacific and from British Columbia to Central Venezuela; prefers local work, but will go abroad; has good working knowledge of Spanish. P. W. 132, Eng. News.

CIVIL ENGINEER, 17 years' experience, surveys and construction railways and hydraulic development; good draftsman; speak Spanish. P. W. 122, Eng. News.

CIVIL ENGINEER, graduate, married, seven years' experience field and office in mines, property, surveys, railroad maintenance, steel works, bridges and road construction; references; location immaterial. P. W. 120, Eng. News.

CIVIL ENGINEER; college graduate; Assoc. M. Am. Soc. C. E.; 10 years' experience, design and construction, docks, bridges, roads, canals, surveys. P. W. 152, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT, 31; graduate; nine years' wide experience on surveys, drainage, sewers, sewage disposal, water and paving; good draftsman and designer; available now; personal interview East or South. P. W. 154, Eng. News.

GRADUATE CIVIL ENGINEER, 13 years' experience in all classes of steel structures, bridges and subways; shop drawings, estimating and designing, past 10 years with leading bridge company, desires change. P. W. 163, Eng. News.

GRADUATE CIVIL ENGINEER; 26; four years' design and construction experience on heavy concrete, foundations, railway and municipal work; available May 1. P. W. 165, Eng. News.

CIVIL ENGINEER; 25; 1 year park construction, 3 years railroad mantenance. construction and location; West preferred. P. W. 171, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER, formerly chief designer and checker with leading concerns, wants responsible position. P. W. 162, Eng. News.

STRUCTURAL DETAILER AND CHECKER; technical graduate; five years' experience on office, mill buildings, highway bridges and small architectural work. capable of taking charge; good references. P. W. 149, Eng. News, Chicago.

STRUCTURAL ENGINEER, thorough designer, checker, squad man; 15 years' experience; wants responsible position. P. W. 177, Eng. News.

Surveyors

I. C. S. GRADUATE, 20, two years' experience in surveying, drafting; moderate salary. C. E. Norcross, Pemberton, N. J.

YOUNG MAN with 11 years' experience in railroad and general engineering desires position as transitman on any class of work; location immaterial; best references. P. W. 178, Eng. News.

YOUNG MAN, two years' experience in field, also technical education, desires position with surveying party; will go anywhere. P. W. 155, Eng. News.

Draftsmen

ENGINEER AND DRAFTSMAN, 33, ten years' experience field and office work, estimating, designing and installing, building bridges, reinforced concrete and steel and general construction. P. W. 146, Eng. News.

STRUCTURAL DRAFTSMAN; technical graduate; 5 years' experience designing, checking and detailing bridges and buildings. P. W. 169, Eng. News.

DRAFTSMAN, experienced in mechanical and electrical detailing, desires position as tracer; location immaterial; salary secondary consideration. P. W. 174, Eng. News.

STRUCTURAL DRAFTSMAN; Mass. tech. graduate; first-class detailer; 2½ years with leading New York firm. P. W. 160, Eng. News.

DRAFTSMAN or assistant to engineer on railroad, electrical, industrial and power plant work; hustling young man, with 4 years' engineering experience and 4½ years field and shop work, desires an opportunity. 1760 President St., Brooklyn.

DRAFTSMAN; young man; technical graduate; experience special machinery, factory and mill buildings; location immaterial. P. W. 173, Eng. News.

Superintendents, Etc.

I. C. S. GRADUATE, 29, in reinforced-concrete engineering and structural drafting, desires position with engineer, contracting firm or architect; ambitious, sober and reliable; best references. P. W. 128, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN of paving; familiar with all kinds of pavements; 24 years' experience; reliable and temperate. P. W. 130, Eng. News.

GRADUATE ENGINEER, 29, six years' experience on extensive surveys, irrigation, railways, foundations, mining and valuation surveys; responsible position only; references. P. W. 131, Eng. News.

ENGINEER; technically educated; 11 years surveys and construction, three years contractor's engineer; thorough knowledge costs and economical handling work. P. W. 156, Eng. News.

YOUNG MAN, graduate engineer, wishes engineering employment; character of work and location immaterial. P. W. 158, Eng. News.

SUPERINTENDENT OF PAVING; 18 years' experience; eight years on wood block; will go anywhere. P. W. 159, Eng. News.

DO YOU NEED A FIRST-CLASS ENGINEER? Perhaps I may suit; 14 years' railroad, sanitary and general construction; desire executive position in field or office; have position at present. P. W. 161, Eng. News.

COMPETENT DESIGNER, detailer and draftsman with extensive experience on structural steel, concrete and timber construction desires position; first-class references; also experienced in estimating and ornamental iron work. P. W. 150, Eng. News.

GRADUATE ENGINEER, 27, experienced in structural steel and pavement construction of various kinds, desires position. P. W. 176, Eng. News.

TECHNICAL GRADUATE, 24, three years' experience with general contractor, estimating, construction and cost keeping; salary secondary. P. W. 172, Eng. News.

YOUNG LADY, stenographer, typist and bookkeeper, 8 years' experience managing large office, wishes new berth; location immaterial; excellent references; salary moderate; at present employed. P. W. 164, Eng. News.

CONTRACTOR'S ENGINEER, estimator, general building construction, reinforced concrete, steel, masonry, timber, wants position; 10 years' experience; A-1 references. P. W. 166, Eng. News.

POSITIONS OPEN

YOUNG GRADUATE ENGINEER having had at least one year's experience in the making of structural steel shop drawings, to learn designing a special class of structures; moderate salary. P. 127, Eng. News.

BOOKKEEPER-STENOGRAPHER wanted for engineering office in Central South; give references, qualifications and salary expected. P. 151, Eng. News.

A CENTRIFUGAL PUMP DESIGNER with experience in designing high-speed pumps of small and medium sizes for high- and low-head service; applicants must state fully their experience, age and salary expected. P. 153, Eng. News.

MAN wanted to design and construct sewage system for city of 12,000. State age, salary and references. P. 170, Eng. News.

SEVERAL DRAFTSMEN, experienced in factory heating, ventilating, plumbing and lighting; give full particulars; first letter regarding experience, salary expected, etc. Address The Moulton Engineering Corporation, P. O. Box 533, New Haven, Conn.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

CONTRACTORS or others employing laborers, skilled or unskilled. We supply laborers from coast to coast. No order too small or too large. Trial order will convince you. Maurice E. Finn's Labor Agency, largest in New England, 27 Washington St., Boston, Mass.

LABORERS FURNISHED FREE OF EXPENSES for any kind of construction work. The Empire Labor Agency, 93 Mulberry St., New York (Telephone 1745 Franklin).

CONTRACTORS—On your next job let be board your men and furnish commissary. I will pay commission. L. B. 175, Eng. News.

WANTED

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

HIGH-GRADE RESPONSIBLE SALES ENGINEER to represent us in different districts on commission basis; our equipment sells to power plants, architects and manufacturing industries; wide field rapidly growing; average sale $1000; applicant must be acquainted with engineers and architects in his district and have three years' selling experience; state age, value of yearly sales, what lines you are now handling; an excellent opportunity to get a live profitable account. Address "A. G. E.," 60 Arch St., Room 503, Boston, Mass.

SALES REPRESENTATION OF REAL VALUE—An expert and successful sales organization with technical and engineering ability, which has developed and standardized several well known materials and devices with the leading construction engineers and architects, public service, railway, and large industrial corporations in New York and vicinity, desires an additional account on a commission basis. W. 95, Eng. News.

BUSINESS OPPORTUNITIES

LIMESTONE QUARRY TO LEASE at Ogdensburg, N. J.; railroad siding; crushing machinery; best quality agricultural lime. Address Frederic Bigelow, 1 Clinton St., Newark, N. J.

CONCRETE BLOCK WORKS, building material in general, machinery, finely equipped, with inexhaustible supply of sand and gravel on the spot. P. O. Box 613, Westwood, N. J.

For Sale Second Hand Equipment

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

Equipment Wanted items appear at the end of this list.

N

ADVERTISERS NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

AMERICAN Construction Co., 108 N. Delaware St., Indianapolis, Ind.—All equipment listed as good as new, used only short time.
BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, George B., 29 Broadway, New York, N. Y.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
JENNISON-Wright Co., The, 313 Huron St., Toledo, O.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal & Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24. Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

BELT CONVEYORS

1—14" and 1—16" 50' centers.—GIVIN.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

96—42 cu.ft. Stuebner tip-over buckets.—SCHMIDT.

CARS

[Standard Gauge]

45—80,000 lb. flat cars, cheap.—WHITNEY.

[36" Gauge]

50—4 yd. 1-way So. Baltimore, $50 each. 8—K. & J. 3-yd. 2-way, overhauled, $70 each.—GRIMSHAW.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

1 Portable Champion No. 3 jaw stone with elevators.—JENNISON.

1 Sturtevant, in perfect condition, used but 10 days; will sell cheap.—ARTHUR L. BATES, Meadville, Pa.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

DRILLS

6 Ingersoll, type F-24, and 2 class "C" Little Giant rock drills.—BECKWITH.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

GENERATORS

Western Electric 100 K.W. dir, con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

GRADERS, ELEVATING

1 Austin.—AMERICAN.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$115 Gurley Y Level, nearly new—$80. $165 Gurley No. 20 Explorers' Transit, nearly new—$118. Guaranteed. 99 others. Rentals, repairs, supplies. ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18. saddle tank.—DOUGLAS.

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

20 ton, 11x16" Davenport, built 1907, $1175.—GRIMSHAW.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

1 Foote No. 3 continuous mixer.—JENNISON.

2 Foote continuous mixers.—AMERICAN.

PILING, SHEET STEEL

165 pcs. Lackawanna 14" arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

5000 pcs. Lackawanna and Carnegie. What are your needs?—GRIMSHAW.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

300,000 rethreaded wrought, sizes ¾" to 24".—MARINE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

RAILS

40 ton of 35 lb. with fish plates.—PIPE.

20,000 ft. 24" gauge 20 lb. portable track.—SCHMIDT.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1—5 ton Kelley tandem and 1—7 ton Chicago tandem, both rollers have been used but upon two jobs and are in most excellent condition.—Address the AMERICAN NATIONAL BANK, Findlay, Ohio.

1 Case 10 ton 3 wheel roller and 1 Buffalo-Pitts 10 ton 3 wheel.—JENNISON.

Tandem for paving, condition fine.—F. S. 167, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—14B Bucyrus traction revolving ⅝ yd.—GIVIN.

⅝ yd. Thew, $2250; ⅝ yd. Bucyrus 14 B, $2500. Both traction and good.—GRIMSHAW.

Thew No. 2—Railroad trucks, unusual bargain.—KEW GARDENS CORPORATION, 56 Wall St., New York, N. Y.

TRACTION ENGINES

1 Buffalo-Pitts., 22 H.P., and 1 Huber, 16 H.P.—AMERICAN.

TRAVELING CRANES

1 15-ton electric 36' 6" span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

WAGONS

4 Buffalo-Pitts., 10 cu.yds. cap. each.—AMERICAN.

Hydraulic Dredge
and Other Machinery
For Sale

One—20" Hydraulic dredge, complete with Pontoons, Pipe Line, etc.
One—1½-yard Vulcan Steam Shovel.
One—No. 3½ Keystone Well Drilling Machine.
Seven—12-yard, 2-Way Oliver Dump Cars with Air Brakes.

For Further Information

Address P. O. Box 27, Rochester, N. Y

Wanted

1—10 ton macadam roller. Send information to W. 168, Eng. News.

Blue print machine, tanks, drier, trimming knife and paraphernalia necessary in blue print business wanted. Address BECKMAN, 2185 Bathgate Av., New York, N. Y.

Contracts to Be Let

Bids received until May 11, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Tuesday, the 11th day of May, 1915, for the repair of highways in the following counties:

Cattaraugus & Chautauqua (one contract—surface application 33.38 miles); Cayuga (one contract—surface treatment, 11.24 miles); Cortland County (one contract—surface treatment, 11.22 miles); Dutchess (two contracts—surface treatment, 23.95 miles); Erie (one contract—surface treatment, 22.79 miles); Lewis (one contract—surface treatment, 15.77 miles); Ontario & Livingston (one contract—surface treatment, 22.33 miles); Monroe (two contracts—surface treatment, 41.41 miles); Niagara (two contracts—surface treatment, 52.57 miles); Ontario (one contract—surface treatment, 18.42 miles); Orleans (one contract—surface treatment, 20.54 miles); Onondaga (one contract—surface treatment, 14.91 miles); Rensselaer (one contract—surface treatment, 4.14 miles); Suffolk (one contract—surface treatment, 7.54 miles); Tompkins (one contract—surface treatment, 4.49 miles); Westchester (one contract—surface treatment, 25.01 miles).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

⁂

Bids received until May 3, 1915.

Notice to Bridge and Concrete Contractors

Hamlin, West Va.

Sealed bids will be received until 2 o'clock P.M. May 3, 1915, by the Commissioners of the Lincoln County Court of Lincoln County, West Va., at Hamlin, West Va., the County Seat of said County, and at the County Clerk's Office,

FOR THE CONSTRUCTION OF A STEEL BRIDGE ACROSS GUYANDOTTE RIVER AND THE CONCRETE WORK FOR SAME.

For plans and specifications, address Oliver & Maupin, Engineers, Huntington, West Va.

The said Commissioners reserve the right to reject any and all bids.

A. C. PARSONS, President.
By ALBERT F. BLACK, Clerk.
Lincoln County Court.

⁂

Bids received until May 18, 1915.

Public Wharf

City of Dunkirk, New York, April 17, 1915.

Sealed proposals for construction of a public wharf at Dunkirk, N. Y., will be received until 8 P.M., Eastern time, May 18th, 1915, and then opened publicly. Right is reserved to reject any or all bids. Plans and specifications are on file and information may be had on application to the undersigned. Specifications will be forwarded to applicants. To insure return of plans, a deposit of $20 is required for plans mailed, which sum will be returned to applicant upon receipt of plans.

A. D. TOOMEY, City Clerk.

Bids received until May 6, 1915.

Reservoir

Gilbertsville, N. Y.

Sealed proposals for the construction of a storage reservoir and appurtenances for the village of Gilbertsville, N. Y., will be received the 6th day of May, 1915, at the office of the Board of Trustees of such village, until 2 o'clock P.M. of that day, at which time and place all proposals will be opened and read.

Each proposal shall be accompanied by a certified check or New York draft in the sum of $1,000.00, and the successful contractor will be required to give a satisfactory bond in the penalty of 50 per cent. of the amount of the bid.

Copies of the specifications and proposal forms may be had upon application to the Engineer or Clerk of the Board of Trustees.

A set of plans may be had upon application to the Engineer and the deposit of $5.00, which deposit will be returned upon the receipt of the plans in good order within two weeks after the date of the letting.

The Board of Trustees reserves the right to reject any or all bids.

The principal items of work are:

7650 cu.yds. earth excavation.
3900 cu.yds. embankment.
650 cu.yds. concrete.
420 cu.yds. filter sand and gravel.

The deposit of the successful bidder will be retained by and forfeited to the village of Gilbertsville, in case such bidder shall refuse to enter into a contract and file a bond in accordance with his proposal within ten days after such proposal is accepted.

JOHN HANKEY, President.
CHARLES E. PERRY, Consulting Engineer,
102 Hudson Ave., Albany, N. Y.

⁂

Bids received until May 14, 1915.

Sewage Collecting System and Sewage Treatment Works

Huntington, Long Island, N. Y.

Sealed proposals for furnishing all labor and materials for constructing a system of sewers and a sewage disposal works in the Sewer District of Huntington, N. Y., addressed to the Sewer Commissioners of the Sewer District of Huntington, N. Y., and endorsed "Proposal for Constructing Sewers and Sewage Disposal Works," will be received by the Sewer Commissioners at their office in the Town Hall, Huntington, N. Y., until 2 o'clock P.M. on May 14, 1915.

The proposed sewer system consists of some 15 miles of sewers, ranging in size from 8 to 15 inches in diameter and for the most part of vitrified pipe with bituminous joints. The sewage treatment works consists of settling tanks of the Imhoff type, divided into three sections, each about 50 feet long and 11.5 feet wide, with suitable sludge compartments and sludge-drying beds, and other appurtenances, including a centrifugal pump operated by a gasoline engine.

Proposals must be made on the blank form of proposal bound with the contract and specifications. Plans and specifications may be obtained from George W. Fuller, Engineer, 170 Broadway, New York City, or C. M. Felt, Secretary, Sewer Commissioners, Huntington, N. Y., upon depositing $25, which will be refunded if said plans and specifications are returned in good condition within thirty days after bids have been received and acted upon by the said Sewer Commissioners.

Proposals must be accompanied by a certified check on a national bank drawn to the order of the Sewer Commissioners of Huntington, N. Y., in the sum of $3,000. The bidder to whom the contract is awarded will be required to execute the same and furnish a surety bond in the sum of 50 per cent. of the amount of the contract within ten days, Sundays excepted, after receiving final notice of the award. The bond shall be satisfactory to the Sewer Commissioners both as to form and surety. The Sewer Commissioners reserve the right to reject any and all bids.

C. M. FELT, Secretary.

Bids received until May 11, 1915.

Sewers and Disposal Plant

Palisades Park, N. J.

SEALED PROPOSALS will be received by the Mayor and Council of the Borough of Palisades Park, N. J., at the Borough Hall, on Tuesday, May 11th, 1915, at 8 o'clock P.M., for the construction of a Sedimentation tank of the Imhoff type, Sludge drying beds and all other appurtenances, also, for a system of sewers, consisting of

about 1430 ft. 20 inch Pipe sewer.
" 4380 " 15 " " "
" 1450 " 12 " " "
" 4940 " 10 " " "
" 28390 " 8 " " "
" 150 Manholes,

and siphon under tracks of Northern Railroad, etc.

Plans and specifications can be seen at the office of Lemuel Lozier, Borough Engineer, Central Boulevard and Broad Avenue, Palisades Park, N. J.

Prospective bidders can obtain a copy of the plans and specifications for a deposit of Ten ($10.00) Dollars, which deposit will be refunded upon the return of the plans and specifications in good condition.

All proposals must be made upon the forms furnished and in full conformity with all the requirements and conditions expressed therein.

The work will be divided into two sections, "A," including the sewers, manholes, etc., "B," including the sedimentation tank, drying beds, etc.

Bidders are invited to offer proposals either for Section "A" or Section "B" or for both Section "A" and "B."

A certified check drawn to the order of the Mayor and Council of the Borough of Palisades Park in the sum of Five Thousand Dollars ($5000.00) must accompany each proposal for Section "A," in the sum of Two Thousand ($2000.00) Dollars for Section "B," or in the sum of Seven Thousand ($7000.00) Dollars for both Sections "A" and "B" as surety that contract will be entered into if proposal is accepted.

A Surety Company bond equal to the amount of the contract will be required in each contract.

Bidders are particularly notified that no bids will be received after the time named above, 8 o'clock P.M., May 11th, under any circumstance.

The Mayor and Council of Palisades Park reserve the right to reject any or all bids.

BENJAMIN E. BUDDS, Mayor.
GEORGE F. WILSON,
Chairman Sewer Committee.
EDGAR R. DAVIS, Borough Clerk.

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Bids received until May 5, 1915.

Steam Turbine-Driven Centrifugal Pump

Kansas City, Mo.

SEALED PROPOSALS will be received by the Purchasing Agent of Kansas City, Missouri, at the office of the Purchasing Agent, Second Floor, City Hall, until two o'clock p.m. of Wednesday, May 5th, 1915, for the designing, construction, delivery and erection of a steam turbine, reduction gear, centrifugal pumping unit of a capacity to pump continuously twenty (20) million U. S. gallons of water per twenty-four (24) hours, against a total combined head of three hundred and sixty (360) feet and steam pressure of one hundred and sixty-five (165) pounds per square inch at throttle; together with all machinery, tools and appurtenances necessary; all in accordance with the plans and general specifications on file in the office of the Chief Engineer of the Water Department.

Each bidder shall deposit with the City Comptroller a certified check in the amount of Seven Hundred and Fifty Dollars ($750.00), payable to the City Comptroller of Kansas City, Missouri, and accompany his bid with the Comptroller's receipt therefor.

The certified check referred to in the Advertisement shall be submitted by each bidder as a guaranty that the bidder will, within ten (10) days after receiving the award of a contract, file with the City a satisfactory bond to the amount of Twenty-five Thousand Dollars ($25,000.00) and will execute the contract.

The Board of Fire and Water Commissioners does not bind itself to accept the lowest or any bid offered, and reserves the right to reject any and all bids and to waive any informality when it seems to be to the interest of Kansas City, Missouri, to do so.

J. P. LANGAN, Purchasing Agent.
BURTON LOWTHER, Chief Engineer.

Bids received until May 17, 1915.

Contract 8—Nepaug Reservoir

Hartford, Conn.

Sealed proposals, addressed to the Board of Water Commissioners of the City of Hartford, for the construction of a new gravel surface road north of Nepaug Reservoir in the Town of New Hartford, Conn., will be received at the office of the Board, City Hall, Hartford, until 3:00 p.m., Monday, May 17, 1915.

Contract 8 comprises the construction of a gravel road about 1½ miles long through new country. The road will have a travel path 14 feet wide with 8 inches of gravel surfacing, together with the necessary culverts and guard fences.

Plans and specifications may be obtained at the office of the Chief Engineer, Pilgard Building, Hartford, Conn., on deposit of $5.00, which amount will be refunded if the plans and specifications are returned in good order before June 17, 1915. Specifications used in making a bid will be considered as returned.

A certified check or cashier's check for $2,000 must accompany each bid and the successful bidder will be required to furnish bonds in the sum of $20,000. The right is reserved to reject any and all bids.

It is expected to let contracts in the near future for the following work, which is in the immediate vicinity of this location and which may be looked over by prospective bidders at the same time that the road work on Contract 8 is examined:

Contract 9—East Dike. Contract probably will be advertised about June 1st and calls for the construction of an earth dam about 25 feet high and 600 feet long, containing about 28,000 cubic yards of earth embankment and 1,500 cubic yards of masonry core wall.

Contract 10—Richards Corner Dam. Contract probably will be advertised about June 15th and calls for the construction of an earth dam 70 feet high and 800 feet long, containing about 250,000 cubic yards of soil and gravel filling, 13,000 cubic yards of masonry core wall, 10,000 cubic yards of rock excavation and a concrete conduit and stream control for a drainage area of 62 square miles.

Later in the year a contract will be let for clearing the entire Nepaug Reservoir area of about 900 acres and grubbing about 125 acres of shore line.

BOARD OF WATER COMMISSIONERS,
WALTER S. GARDE, President.
FRED D. BERRY, Secretary.
CALEB MILLS SAVILLE, Chief Engineer.

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Bids received until May 11, 1915.

To Paving Contractors

Anderson, S. C., April 24, 1915.

Sealed proposals on blank forms furnished by the City and addressed to the Board of Paving Commissioners will be received until Noon, May 11, 1915, for furnishing all material, labor, etc., for street paving.

The work will consist of approximately seventy-five thousand (75,000) square yards of street paving, including all classes.

Each bid must be accompanied by a certified check, made payable to the City Clerk and Treasurer, for five (5%) per cent. of price bid.

The right is reserved by the Board of Paving Commissioners to reject any, or all, or any portion of bids.

Specifications can be had and additional information gotten at the office of the City Engineer, Anderson, S. C.

W. A. SANDERS, City Engineer.
J. H. GODFREY, Mayor.

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Bids received until May 10, 1915.

Seawall

Bridgeport, Conn., April 26, 1915.

Sealed proposals will be received by the Board of Park Commissioners until 1:00 P.M., May 10, 1915, at room No. 706 Security Building, for the construction of approximately 450 feet of seawall. Plans and specifications can be obtained from A. H. Terry, City Engineer. A deposit of $2.00 will be required to cover cost of drawings and prints. The right to reject any and all bids is reserved.

B. F. COONEY, Clerk,
Board of Park Commissioners.

Bids received until May 14, 1915.

Intercepting Sewers and Connections

OFFICIAL NOTICE NO. 10

Published by authority of the Sewerage Commission of the City of Milwaukee.

Milwaukee, Apr. 23rd, 1915.

Sealed proposals for constructing intercepting sewers and connections on both sides of the Milwaukee River in the City of Milwaukee will be received by the Sewerage Commission at its office in the City Hall, until 2:00 P.M. on the 14th day of May, A.D. 1915, at which place and time the proposals will be publicly opened and read.

The work to be done may be divided into two separate contracts numbered 9 and 10, or further sub-divided into five contracts numbered 11, 12, 13, 14 and 15.

Number 9 embraces the construction of an intercepting sewer and branches on the east side of Milwaukee River from a point below the dam to the intersection of Broadway and Detroit Streets, and requires the construction of approximately:

7927 feet brick and concrete sewer in open cut from 30" to 51" diameter.
3992 feet brick and concrete sewer in tunnel from 30" to 51" diameter.
3844 feet terra cotta pipe sewer from 10" to 24" diameter.
1762 feet of manholes and pile and timber foundations.

Number 9 may be sub-divided into three contracts numbered 11, 12 and 13.

Number 10 embraces the construction of an intercepting sewer and branches on the west side of Milwaukee River from the Holton Street Viaduct to the intersection of West Water and Fowler Streets, and requires the construction of approximately:

8480 feet brick and concrete sewer in open cut from 30" to 48" diameter.
2340 feet terra cotta pipe sewer in open cut from 10" to 18" diameter.
1105 feet of manholes and pile and timber foundations.

Number 10 may be sub-divided into two contracts numbered 14 and 15.

All as shown upon the plans and described in the specifications now on file in the office of the Sewerage Commission.

The time allowed for completing contract No. 9 or 10 shall be two hundred and fifty (250) working days. The time for completing either contracts No. 11, 12, 13, 14 and 15 shall be two hundred (200) working days. (Working days meaning such as are particularly described in the contract.)

The liquidated damages for not completing the work within the time agreed shall, for each day's delay, be an amount equal to one-half of one percentum of the aggregate cost of the work embraced in the contract.

Each proposal must be accompanied by a cash deposit of, or, in lieu thereof, by a certified check drawn upon a national or state bank doing business in the City of Milwaukee, to the order of the "Sewerage Commission of the City of Milwaukee," for the following sums; failing in which the bid will be rejected:

For proposal Number 9	$38,500.00
For proposal Number 10	25,000.00
For proposal Number 11	10,200.00
For proposal Number 12	13,000.00
For proposal Number 13	15,300.00
For proposal Number 14	11,400.00
For proposal Number 15	13,600.00

Specifications and blank forms of proposals can be obtained and detail plans examined, at the office of the Sewerage Commission in the City Hall.

The prices must be written in the proposal and also stated in figures. In case of variation the written prices will prevail.

All cash deposits or certified checks deposited by bidders to whom the contract is not awarded will be returned upon application to the Secretary of the Commission after the contract has been awarded or after the rejection of all bids. The cash deposit or certified check which may be deposited by the successful bidder will be returned to him as soon as the contract is properly executed and approved by the City Attorney and Sewerage Commission.

Full sets of detailed plans will be sent to any contractor desiring to bid upon receipt of ten dollars ($10.00). Said amount to be returned upon receipt of plans in good condition.

The Sewerage Commission of the City of Milwaukee reserves the right to reject any and all bids submitted.

J. H. FOWLES, Secretary.

Countersigned:
LOUIS M. KOTECKI, Comptroller.

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U. S. ENGINEER OFFICE, Kansas City, Mo., April 24, 1915. —Sealed proposals for constructing about 5500 feet standard 3-row timber dike on Missouri River, about 92 and 98 miles below Kansas City, opposite and about 6 miles below Waverly, will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

Bids received until May 7, 1915.

Trunk Sewers in Canal and Monroe and Clinton Streets, Concrete Retaining Walls and Curb Wall in Canal Street, and Curb Walls in Monroe Street

THE UNION STATION COMPANY.

Chicago, Illinois, April 23, 1915.

Sealed proposals, addressed as below stated, will be received by The Union Station Company, Chicago, Illinois, until 12 A.M., 7th day of May, 1915, for the construction of a reinforced concrete trunk sewer beginning at the Chicago River at a point immediately south of Washington Street, running thence west to Canal Street; thence south along Canal Street to Monroe Street; thence west on Monroe Street to Clinton Street; thence south in Clinton Street with a brick sewer to Adams Street; also a brick sewer in Canal Street from Randolph Street to Fulton Street and concrete sewer to the outlet in the Chicago River, with pipe sewer and brick sewer connections shown on plans; also a concrete retaining wall along the east curb line of Canal Street from Washington Street to Monroe Street and a concrete curb wall along the west side of Canal Street from Madison Street to Monroe Street, and concrete curb walls on both sides of Monroe Street from Clinton Street to Canal Street; according to the plans and specifications on file in the office of the Chief engineer of The Union Station Company, at No. 521 West Adams Street, Chicago, Illinois.

Proposals must be made out upon blanks furnished at said office and be addressed to the undersigned, endorsed "Proposal for Constructing Trunk Sewers and Concrete Retaining and Curb Walls," and be accompanied by a certified check for Ten Thousand Dollars ($10,000.00) on some responsible bank located and doing business in the City of Chicago, and made payable to the order of the Chief Engineer of The Union Station Company.

Bidders must deposit Ten Dollars ($10.00) for plans and specifications. The deposit will be returned upon return of plans.

No proposal will be considered unless the party offering it shall furnish evidence satisfactory to the Chief Engineer of The Union Station Company of his experience and his ability to perform the work in the time called for in the specifications; that he has the necessary facilities or adequate means to procure such facilities, together with sufficient pecuniary resources to fulfill the conditions of the contract and specifications, in case such contract should be awarded to him.

The above work is to be completed under the provisions of an ordinance passed March 23, 1914, and accepted by The Union Station Company, September 23, 1914.

Companies or firms bidding will give individual names, as well as the name of the firm and their address.

The Union Station Company reserves the right to reject any and all bids.

THOS. RODD, Chief Engineer,
The Union Station Company.

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Bids received until May 4, 1915.

Water Tube Boilers at the Main Pumping Station

Toronto, Ontario.

Tenders will be received through registered post only up to noon on Tuesday, May 4th, 1915, for the supply and installation of Water Tube Boilers at the Main Pumping Station.

Tenders must be addressed to the Chairman, Board of Control, City Hall, Toronto, and be plainly marked on the outside of envelope as to contents.

Specifications and forms of tender may be obtained at the Works Department, City Hall.

Tenderers must comply strictly with conditions of City By-law as to deposits and sureties as set out in specifications and forms of tender. The lowest or any tender not necessarily accepted.

T. L. CHURCH (Mayor),
Chairman, Board of Control.

Toronto, April 21st, 1915.

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U. S. ENGINEER OFFICE, Kansas City, Mo., April 24, 1915. —Sealed proposals for constructing about 1000 feet standard 3-row timber dike, and about 5000 feet standard revetment on Missouri River, about 98 miles below Kansas City, and 6 miles below Waverly, will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col.. Engrs.

Bids received until May 21, 1915.

Bridges

Rome, Ga.

Sealed proposals will be received by the Board of Commissioners of Roads & Revenue, Floyd County, Ga., until twelve o'clock noon of May 21st, 1915, for the construction of the following bridges, with the City of Rome, said County.

(a) Second Avenue Bridge—A reinforced concrete arch bridge, forty foot roadway and two eight foot sidewalks, total length of about three hundred and seventy-six (376) ft.

(b) Reinforced concrete arch bridge at Broad Street, forty foot roadway and two eight foot sidewalks, total length of about four hundred and seven (407) feet.

(c) Steel truss bridge on concrete substructure, at Fifth Avenue, with a thirty-six and one-half foot roadway and two eight foot sidewalks, total length three hundred and sixty-seven (367) feet. This bridge will have a movable channel span with a channel clearance of about one hundred feet.

Certified check for One Thousand Dollars must accompany each bid.

Instructions to bidders, plans, specifications, forms of contracts, proposal and bond may be seen in the offices of the Consulting Engineers, Greiner & Whitman, Fidelity Building, Baltimore, Md., W. C. Spiker, Hurt Building, Atlanta, Ga., and in the office of Kieffer Lindsey, County Engineer, at Rome, Ga.

Contractors can obtain complete sets of plans, specifications, etc., from W. C. Spiker, for the sum of $5.00 per set for the Fifth Avenue Bridge and $5.00 per set for the Second Avenue and Broad Street bridges combined, and the Board reserves the right to reject any or all proposals and to make the award for either bridge separately or all bridges together, according to the best interest of the County.

After bidding on plans as above stated bidders may also submit alternate designs and specifications with their bids thereon, such alternate designs to be approved by the County Consulting Engineers. This April 19th, 1915.

J. G. POLLOCK, Commissioner.
C. L. CONN, Commissioner.
W. N. HORTON, Commissioner.
P. C. GRIFFIN, Commissioner.
C. M. YOUNG, Commissioner.
J. S. DAVIS, Commissioner.

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Bids received until May 18, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. Tuesday, the 18th day of May, 1915, for the repair of highways in the following counties:

Allegany (one contract—surface treatment, one contract—resurfacing); Cayuga (one contract—resurfacing); Franklin (one contract—surface treatment, one contract—resurfacing); Fulton (one contract—surface treatment); Genesee (one contract—surface treatment, one contract—broken stone); Livingston (three contracts—surface treatment, one contract—broken stone); Monroe (two contracts—surface treatment, four contracts—broken stone); Hamilton (one contract—surface treatment); Ontario (one contract—surface treatment, one contract—resurfacing, one contract—broken stone); Madison (two contracts—surface treatment); Montgomery (one contract (surface treatment); Oneida (three contracts—surface treatment); Otsego (one contract—surface treatment); Herkimer (one contract—surface treatment); Orange (two contracts—resurfacing); Orleans (one contract—surface treatment, one contract—broken stone); Oswego (two contracts—surface treatment; Rensselaer (one contract—resurfacing); Seneca (one contract—surface treatment); Steuben (one contract—resurfacing); Tompkins (one contract—resurfacing); Washington (one contract—resurfacing); Wyoming (one contract—surface treatment, one contract—broken stone); Yates (one contract—surface treatment).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

Bids received until May 25, 1915.

Brick, Segment Block and Terra Cotta Pipe Sewers

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Tuesday, May 25th, 1915, at 12 o'clock, Noon, for furnishing all labor and materials and constructing brick, segment block and terra cotta pipe sewers in the City of Wilkes-Barre in accordance with plans and specifications, copies of which may be had upon application to B. K. FINCH, City Engineer, upon payment to him of the sum of Five Dollars ($5), which will be refuned to bidders, provided said specifications are returned to the City Engineer on or before June 1, 1915. Proposals to be endorsed "Proposals for Sewer Construction" and addressed to Fred H. Gates, City Clerk, and must be accompanied by a certified bank check in the sum of One Thousand Dollars ($1,000), conditioned upon the successful bidder entering into a contract for the completion of said work. The firms who submit bids to those bidding on the sewer, to furnish to said bidders vitrified segment sewer tile, must file with the City Clerk, on or before May 25th, 1915, at 12 o'clock Noon, a Surety Company Bond in the sum of Ten Thousand Dollars ($10,000) guaranteeing said tile for a period of five years from the date of the completion of the sewer. The City Council reserves the right to reject any or all of the bids.

C. N. LOVELAND,
Superintendent of the Department of Streets and Public Improvements.

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Bids received until May 18, 1915.

Water-works Improvement

Paris, Illinois.

Sealed proposals will be received by the City Clerk of Paris, Edgar County, Illinois, until 10 o'clock A.M., May 18, 1915, for the construction of four earth dams, a diversion channel, a wet well and an intake, and two sewers, at which time they will be publicly opened and read.

Bids will be received on four alternatives, one of which will be chosen. The work under the alternatives will consist of about:

Class of Work	Alternative A	Alternative B	Alternative C	Alternative D
Earth Excav. cu.yd.	55,000	8,000	53,000	4,600
Earth Fill cu.yd.	55,000	55,000	21,000	21,000
Rock Excav. cu.yd.	3,400	170	3,300	90
Concrete cu.yd.	2,500	5,400	1,600	3,500
15-in. pipe sewer linear feet	3,400	800	3,400	800

Copies of the contracts, plans and specifications and information for bidders are on file at the office of the City Clerk, Paris, Illinois, or they may be obtained by application to the engineers, Fleming, Babbitt and Enger, Urbana, Illinois.

A charge of fifteen dollars will be made for each set of plans, specifications, etc., which charge will be refunded upon the return of the complete set in good condition on or before June 18, 1915.

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Bids received until May 3, 1915.

Notice to Bridge Contractors

Cobleskill, N. Y.

Sealed bids and proposals will be received by the undersigned at the office of the Town Clerk in the Village and Town of Cobleskill, Schoharie County, N. Y., until One o'clock in the afternoon of May 3rd, 1915, at which place and hour they will be publicly opened and read, for furnishing material in constructing a new bridge over the Cobleskill Creek near the residence of Foster Barner in said Village and Town.

Detailed plans and specifications of said bridge may be seen and examined at the office of the Town Clerk in said Village and Town, and at the State Highway Commission's Office at Albany, N. Y.

Each bid of proposal must be addressed to Ogden Eldredge, Town Clerk, Cobleskill, Schoharie County, N. Y.

The right to reject any and all bids is hereby reserved.

LORENZO J. GORDON,
Town Superintendent of Highways of the Town of Cobleskill, N. Y.
Dated April 9th, 1915.

Bids received until May 5, 1915.

Proposals for Lift Bridge

Elizabeth, N. J.

Sealed proposals will be received by the Committee of the Board of Chosen Freeholders of Union County at the Court House, Elizabeth, N. J., at 2:00 P.M. Wednesday, May 5, 1915, for the following described work.

New steel lift bridge over the Elizabeth river at Baltic Street and Trenton Avenue, Elizabeth, N. J. The channel clearance to be 60 feet and the length of moving leaf 85 feet. The width of roadway to be 24 feet and the width of each sidewalk 5 feet, the bridge to consist of a single leaf pony truss Strauss Trunnion Bascule Bridge as designed by the Strauss-Bascule Bridge Co. of 104 South Michigan Avenue, Chicago, Ill. Each bid to cover the entire bridge complete including foundations, superstructure, approaches, excavations and embankments, as set forth in the specifications.

Each bid must be accompanied with a certified check for $1,000.00 as a guarantee of good faith, as required by the specifications.

Plans and specifications for this work may be examined at the office of the County Engineer of Union County, 120 Broad Street, Elizabeth, N. J.

The right is reserved by the Committee to reject any or all bids as may be deemed best for the interests of the County of Union.

JACOB L. BAUER, County Engineer.

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Bids received until May 5, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Wednesday, May 5th, 1915, for the improvement of Highways in the following counties:

Allegany, 2 highways (4.00; 8.64); Cattaraugus (approx. length 4.43); Chautauqua, 2 highways (3.99; 1.59); Dutchess (approx. length .88); Franklin (approx. length 8.81); Hamilton (approx. length 5.01); Herkimer, 3 highways (1.81; 3.60; 5.63); Jefferson (approx. length 7.27); Livingston, 3 highways (3.51; 3.96; 2.18); St. Lawrence, 3 highways (5.66; 9.09; 10.85); Schenectady (approx. length 5.62); Schoharie (approx. length 4.99).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is caled to "INFORMATION FOR BIDDERS" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

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Bids received until May 18, 1915.

Street Paving

Charleston, S. C., April 16, 1915.

Sealed Proposals in duplicate will be received at this office until 1 P.M. Tuesday, May 18th, 1915, for 65,000 square yards, more or less, of paving on concrete base, of which it is estimated that 20,000 square yards to 25,000 square yards will be Creosoted Wood Block and the remainder Sheet Asphalt, Asphaltic or Bituminous Concrete or Bitulithic. Specifications will be furnished prospective Bidders upon receipt of $5.00 as guarantee for their return. The right is reserved to reject any or all bids.

J. H. DINGLE, City Engineer.

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Bids received until May 10, 1915.

Bids for Storm Sewer

Cynthiana, Ky.

Bids for the construction of 2800 feet of storm sewer will be received until May 10, 1915. For further information address B. R. MYERS, City Engineer, Cynthiana, Ky.

Bids received until May 6, 1915.

Water Pipe and Castings

OFFICE OF THE BOARD OF STREET AND WATER COMMISSIONERS OF THE CITY OF NEWARK, N. J.
CITY HALL,
Newark, N. J., April 26, 1915.

Sealed proposals for straight cast iron water pipe and special castings for both the low and high pressure systems will be received at this office from 3:15 to 3:30 o'clock p.m. on Thursday, May 6th, 1915, and opened at the last named hour at a public meeting of the Board to be held at said time and place for:

600	tons (of 2000 lbs.) of 6-inch cast iron water pipe	
29	tons (of 2000 lbs.) of 8-inch cast iron water pipe	
77	tons (of 2000 lbs.) of 10-inch cast iron water pipe	
500	tons (of 2000 lbs.) of 12-inch cast iron water pipe	1206 tons
	Ordinary special castings from 4 to 12 inches in diameter	65 "
600	tons (of 2000 lbs.) of 16-inch cast iron water pipe	
625	tons (of 2000 lbs.) of 20-inch cast iron water pipe	
280	tons (of 2000 lbs.) of 24-inch cast iron water pipe	1505 tons
	Ordinary special castings from 16 to 24-inch dia.	35 "
1310	tons (of 2000 lbs.) of 36-inch cast iron water pipe	1310 tons
	Ordinary special castings of 36-inch diameter	50 "
13	tons (of 2000 lbs.) of 6-inch HIGH PRESSURE cast iron water pipe	
19	tons (of 2000 lbs.) of 8-inch HIGH PRESSURE cast iron water pipe	
819	tons (of 2000 lbs.) of 12-inch HIGH PRESSURE cast iron water pipe	851 tons
	Special castings for HIGH PRESSURE system (according to specifications and drawings)	50 "

Bids for the above work to be made in the following manner:

A price per ton (of 2000 lbs.) for the 1206 tons of 6", 8", 10" and 12" pipe;

A price per ton (of 2000 lbs.) for the 65 tons of ordinary special castings from 4 to 12 inches in diameter.

A price per ton (of 2000 lbs.) for 1505 tons of 16", 20" and 24" pipe;

A price per ton (of 2000 lbs.) for 35 tons (of 2000 lbs.) of ordinary special castings from 16 to 24 inches in diameter.

A price per ton (of 2000 lbs.) for 1310 tons of 36-inch cast iron water pipe;

A price per ton (of 2000 lbs.) for 50 tons of special castings of 36-inch diameter.

A price per ton (of 2000 lbs.) for 851 tons of 6", 8" and 12" HIGH PRESSURE cast iron water pipe;

A price per ton (of 2000 lbs.) for 50 tons of special castings for the HIGH PRESSURE system.

For the purpose of comparing bids in order to ascertain the low bidder the summation of prices at the respective quantities for ordinary pipe and specials from 4 to 12 inches in diameter will be included in one contract; the pipe and specials from 16 to 24 inches in diameter in another contract; the pipe and special castings for the 36-inch pipe in a third contract; and the pipe and special castings from 6 to 12 inches in diameter for the HIGH PRESSURE system in a fourth contract.

All f.o.b. cars Newark, N. J., according to specifications and drawings which will be furnished upon application to the engineer and superintendent of the department of water.

Proposals must be accompanied by the consent in writing of two sureties (residents of Essex County, N. J.) or surety company authorized to do business in New Jersey who qualify as to their responsibility in the amount of the proposal and agree to become sureties for the faithful performance of the contract, if awarded.

Each proposal must be enclosed in a sealed envelope properly endorsed (Proposal for Cast Iron Pipe and Special Castings) with the name of the bidder and directed to the Board of Street and Water Commissioners of the City of Newark, N. J.

The contract to be awarded to the lowest bidder for each separate division of the quantities, the Board reserving the right to reject any or all bids.

By direction of the Board.

MORRIS R. SHERRERD, Chief Engineer.

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U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., April 28, 1915.—Sealed proposals for constructing and delivering combination drill scow and dredge "General Gillespie" will be received at this office until 12 M., May 28, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Engrs.

Contractors

BIDS OPENED MAY 18, 1915,

for the construction of Section No. 2 of Route No. 49, being a part of the Culver Rapid Transit Railroad.

A three-track elevated railroad in the Borough of Brooklyn, beginning at a point in Gravesend Avenue about 525 feet south of Bay Parkway and extending southerly over Gravesend Avenue and Shell Road to a point about 525 feet south of Avenue X produced.

Write or call concerning form of contract, plans and specifications.

PUBLIC SERVICE COMMISSION FOR THE FIRST DISTRICT,
154 Nassau Street, New York City.

⁂

PROPOSALS FOR STORM-WARNING LANTERNS—U. S. Department of Agriculture, Washington, D. C., April 15, 1915. —Sealed proposals for furnishing storm-warning lanterns, as specified, f.o.b. factory, will be received here until noon, May 18, 1915, and then opened. Information furnished upon application to the Chief of Weather Bureau. Samples of the lanterns proposed to be furnished, to be submitted in connection with bid. Envelopes containing proposals should be indorsed "Proposals for Storm-warning Lanterns," and addressed to Chief, U. S. Weather Bureau, Department of Agriculture, Washington, D. C.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 20, 1915. —Sealed proposals for constructing about 2250 feet standard 3-row timber dike, and about 12,000 feet standard revetment on Missouri River, about 163 miles below Kansas City, and 9 miles below Glasgow, will be received at this office until 12 M., May 20, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, Room 325 Custom House, New Orleans, La., Mar. 29, 1915—Sealed proposals for furnishing coal for United States plant from July 1, 1915, to June 30, 1916, will be received at this office until 11 A.M., May 3, 1915, and then publicly opened. Information on application. EDWARD H. SCHULZ, Maj., Engrs.

U. S. ENGINEER OFFICE, Louisville, Ky., April 19, 1915.—Sealed proposals for a Steel Hull for Dredge "Nolin River" will be received here until 12 noon, central time, May 19, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

U. S. ENGINEER OFFICE, Pittsburgh, Pa., April 21, 1915. —Sealed proposals for building two lockkeepers' houses at Dam No. 1, Monongahela River, will be received at this office until 12 M. (Eastern Standard Time), May 21, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

TREASURY DEPARTMENT, U. S. Coast Guard, Washington, D. C., April 12, 1915.—Sealed proposals will be received at this office until 2 o'clock P.M., of Thursday, May 20, 1915, and then publicly opened, for the construction of a rubble mound breakwater at the Marblehead Coast Guard Station, Marblehead, Ohio. Specifications and drawings, form of proposal, etc., and full information can be obtained upon application to the Superintendent, 10th District, Coast Guard, Buffalo, N. Y., the Keeper, Marblehead Coast Guard Station, Marblehead, Ohio, or to this office. E. P. BERTHOLF, Captain Commandant.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 20, 1915. —Sealed proposals for constructing about 5900 feet standard 3-row timber dike on Missouri River, about 50 and 53 miles below Kansas City, and 1 mile below Napoleon and 1 mile above Camden, will be received at this office until 12 M., May 20, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

DEPARTMENT OF THE INTERIOR, Washington, D. C., April 19, 1915.—Sealed proposals in duplicate will be received at this Department until 2 o'clock p.m., Tuesday, May 11, 1915, and then opened, for the furnishing of all labor and material (unless otherwise specified) which shall be required for rewiring the third floor and galleries of the Patent Office Building, Seventh and F Streets, N.W., Washington, D. C., and making all connections ready for service, in accordance with plans and specifications, copies of which may be obtained upon application to the chief clerk of the department. Proposals should be securely enveloped, marked "Proposal for rewiring third floor and galleries, Patent Office Building," and be addressed to the Secretary of the Interior. BO SWEENEY, Assistant Secretary.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 10, 1915. —Sealed proposals for constructing about 4,200 feet standard 3-row timber dike on Missouri River, about 12 and 20 miles below Kansas City, and about one-half mile below Cement City and near So. Liberty, will be received at this office until 12 M. May 10, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

OFFICE OF THE COMMISSIONERS, D. C., April 28, 1915.—SEALED PROPOSALS will be received at this office, Room 509 District Building, until 2 o'clock P.M., on May 12, 1915, for the construction of Sewers in the District of Columbia, involving the construction of about 2,200 linear feet of trunk sewer, 6 feet 9 inches to 6 feet 3 inches diameter. Forms of proposals, specifications and necessary information may be obtained from the Chief Clerk, Engineer Department, Room 427 District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

Bids received until May 5, 1915.

Notice to Bridge Contractors

Cumberland, Md.

Bids will be received by the Mayor and City Council of Cumberland, Md., up to 9:30 o'clock A.M., May 5th, 1915, for the construction of a concrete twin arch bridge at Market Street over Wills Creek, clear span of each 65 feet.

Plans and specifications can be procured at office of City Engineer, City Hall, on deposit of ten dollars ($10.00), to be refunded if same be returned in good condition.

The right is reserved to reject any and all bids if not satisfactory to the Mayor and City Council.

JAMES P. GAFFNEY, City Engineer.

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OFFICE, COMMISSIONERS, DISTRICT OF COLUMBIA, Washington, April 24, 1915.—Sealed Proposals will be received at the office of the Secretary of the Board of Commissioners, Room 509, District Building, until 2 o'clock P.M., May 21, 1915, for paving various streets and avenues in the District of Columbia with sheet asphalt. Forms of proposal, specifications and necessary information may be obtained from Chief Clerk, Engineer Department, Room 427, District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

OFFICE, COMMISSIONERS, DISTRICT OF COLUMBIA, Washington, April 24, 1915.—Sealed Proposals will be received at the office of the Secretary of the Board of Commissioners, Room 509, District Building, until 2 o'clock P.M., May 21, 1915, for laying asphalt-block pavements in the District of Columbia. Forms of proposal, specifications and necessary information may be obtained from Chief Clerk, Engineer Department, Room 427, District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

U. S. ENGINEER OFFICE, Wheeling, W. Va., April 28, 1915. —Sealed proposals for furnishing and erecting steel lock gates for Dams Nos. 12 and 20, Ohio River, will be received at this office until 11 a.m. (Eastern time), May 18, 1915, and then publicly opened. Bids will be considered for lock gates for one or both dams. Information on application. T. H. JACKSON, Major, Engrs.

TREASURY DEPARTMENT, U. S. Coast Guard, Washington, D. C., April 22, 1915.—Sealed proposals will be received at this office until 2 o'clock P.M. of Wednesday, May 26, 1915, and then publicly opened, for moving and altering the Sandy Hook Coast Guard Station, Fort Hancock, New Jersey. Specifications and drawings, form of proposal, etc., and full information can be obtained upon application to the Superintendent, Fifth District, Coast Guard, Asbury Park, N. J., the Keeper, Sandy Hook Coast Guard Station, Fort Hancock, N. J., or to this office. E. P. BERTHOLF, Captain Commandant.

U. S. ENGINEER OFFICE, Louisville, Ky., April 12, 1915.—Sealed proposals for two steel dump scows will be received here until 12:00 noon, Central Time, May 13, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

U. S. ENGINEER OFFICE, Wilmington, N. C., Apr. 26, 1915. —Sealed proposals for furnishing and delivering about 22,000 barrels of Portland cement will be received at this office until 12 M., May 26, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engrs.

U. S. ENGINEER OFFICE, Wilmington, N. C., Apr. 26, 1915. —Sealed proposals for furnishing and delivering about 19,700 tons of crushed stone will be received at this office until 1 P.M., May 26, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engrs.

U. S. ENGINEER OFFICE, Savannah, Ga., April 26, 1915. —Sealed proposals for construction and delivery of two (2) steel lighters will be received at this office until 12 o'clock, Noon (Eastern Standard Time), May 26, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Colonel, Engineers.

U. S. ENGINEER OFFICE, Norfolk, Va., Apr. 7, 1915.—Sealed proposals for furnishing about Three Thousand (3000) Tons of Bituminous Coal will be received at this office until 12 M., May 7, 1915, and then publicly opened. Information on application. J. P. JERVEY, Lt.-Col., Engrs.

SEALED PROPOSALS will be received at the Office of the Lighthouse Inspector, Buffalo, N. Y., until 2 o'clock p.m., May 12, 1915, and then opened, for furnishing metalwork for superstructure of Ashtabula West Breakwater Light Station, Ashtabula Harbor, Ohio. Blank proposals and particulars may be obtained by addressing the above office.

PROPOSALS FOR LEVEE WORK—Mississippi River Commission, 1st & 2d Districts, Room 20, Custom House, Memphis, Tenn., April 27, 1915.—Sealed proposals for constructing about 4,500,000 cubic yards of levee work in the Upper and Lower St. Francis, and White River Levee Districts, will be received at this office until 11 a.m., May 26, 1915, and then publicly opened. Information upon application. E. M. MARKHAM, Maj., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 10, 1915 —Sealed proposals for constructing about 9000 feet standard revetment on Missouri River, about 24 miles below Kansas City, and two miles from Atherton, will be received at this office until 12 M., May 10, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies (Labor Bureaus), Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

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POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 7 years' well-balanced experience, designer, evecutive, and salesman. Thoroughly familiar cement mill and contractors' machinery. Want secondary executive position with manufacturer building medium to heavy machinery, P. W. 182, Eng. News.

MECHANICAL and STRUCTURAL ENGINEER, technical graduate, eight years' experience in the design and detail of power plants, excavating machinery, bridges, buildings, and reinforced concrete structures. Excellent references. P. W. 192, Eng. News, Chicago.

Civil Engineers

CIVIL ENGINEER, college graduate; five years' experience, design and construction, docks, bridges, surveys. P. W. 179, Eng. News.

GRADUATE CIVIL ENGINEER wants work of any kind in the engineering line; five years' experience, land surveys, canal, roads, sewers and street paving. P. W. 76, Eng. News.

CIVIL ENGINEER AND DRAFTSMAN, nine years' experience railway location and construction, designing, detailing, estimating and supervising erection of steel and reinforced-concrete mill buildings and other structures; location immaterial. P. W. 215, Eng. News.

CIVIL ENGINEER, 45, now employed, is desirous of obtaining position in charge of construction with large company; experience includes railroad location, maintenance-of-way and construction, both steam and electric; general municipal work, with very large sewer design and construction work; highway construction; sewage-disposal experimentation and practice; drawing of specifications of many kinds; organization of construction work; planning records of cost for control purposes; field of work has extended from Atlantic to Pacific and from British Columbia to Central Venezuela; prefers local work, but will go abroad; has good working knowledge of Spanish. P. W. 132, Eng. News.

CIVIL ENGINEER, graduate, married, seven years' experience field and office in mines, property, surveys, railroad maintenance, steel works, bridges and road construction; references; location immaterial. P. W. 120, Eng. News.

CIVIL ENGINEER; college graduate; Assoc. M. Am. Soc. C. E.; 10 years' experience, design and construction, docks, bridges, roads, canals, surveys. P. W. 152, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT, 31; graduate; nine years' wide experience on surveys, drainage, sewers, sewage disposal, water and paving; good draftsman and designer; available now; personal interview East or South. P. W. 154, Eng. News.

CIVIL ENGINEER, 17 years' experience, surveys and construction railways and hydraulic development; good draftsman; speak Spanish. P. W. 184, Eng. News.

CIVIL ENGINEER and Superintendent, Associate Member American Society. Ten years' experience. Three years railway surveys and construction. Three years engineer sewer construction. Three years superintendent sewer and water works. Speaks Spanish. References. P. W. 181, Eng. News.

CIVIL ENGINEER, university graduate, 2 years' building experience, now at concrete design seeks location with contractor or engineer, New York or vicinity. P. W. 187, Eng. News.

CIVIL ENGINEER, 27, graduate, 4 years experience in sewer construction, irrigation location and construction, railway maintenance, cement and concrete testing. P. W. 186, Eng. News.

CIVIL ENGINEER, graduate, 14 years' practical experience; water works and municipal consulting engineering; design and construction, earth, masonry, concrete and steel; investigations, reports, appraisals, fire protection; excellent references. P. W. 199, Eng. News.

CIVIL ENGINEER and superintendent, 13 years' experience in designs, surveys, supervision of construction on large work; open for position in about two weeks. P. W. 201, Eng. News.

GRADUATE CIVIL ENGINEER, 13 years' experience in all classes of steel structures, bridges and subways; shop drawings, estimating and designing, past 10 years with leading bridge company, desires change. P. W. 202, Eng. News.

CIVIL ENGINEER, graduate, 2½ years' experience, railroad location and maintenance, desires position with construction company, contractor or engineer; willing to start at bottom. P. W. 205, Eng. News.

YOUNG MAN, graduate civil engineer, Cooper Institute, wishes work of any kind; location immaterial. P. W. 210, Eng. News.

TECHNICAL GRADUATE, three years' experience estimating and construction, desires position with contractor, engineer or selling. P. W. 207, Eng. News.

ENGINEER, 34, wants position at anything in civil engineering or associated work; salary secondary; broad experience in municipal construction work; Assoc. Mem. Am. Soc. C. E.; highest references. P. W. 208, Eng. News.

CIVIL ENGINEER; 27; Cornell graduate; 6 years' experience on dam, canal, municipal and sanitary design and construction; executive ability, capable and forceful; capable of directing work as well as designing same; first class references; can report immediately. P. W. 209, Eng. News.

YOUNG MAN, graduate civil engineer, Cooper Institute, wishes work of any kind; location immaterial. P. W. 211, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER, thorough designer, checker, squad man; 15 years' experience; wants responsible position. P. W. 177, Eng. News.

Surveyors

YOUNG MAN with 11 years' experience in railroad and general engineering desires position as transitman on any class of work; location immaterial; best references. P. W. 178, Eng. News.

Draftsmen

DRAFTSMAN or assistant to engineer on railroad, electrical, industrial and power plant work; hustling young man, with 4 years' engineering experience and 4½ years field and shop work, desires an opportunity. 1760 President St., Brooklyn.

COLLEGE AND TECHNICAL GRADUATE, employed with railroad; expert estimating, designing, checking steel, masonry, reinforced concrete; excellent references; desires change. P. W. 197, Eng. News.

STRUCTURAL DRAFTSMAN; technical graduate; 5 years' experience designing, checking and detailing bridges and buildings. P. W. 204, Eng. News.

DRAFTSMAN—All around, mill engineering designer, 8 years' office, 4 years' shop experience desires permanent position in this line with reliable concern. Executive ability. P. W. 188, Eng. News, Chicago.

STRUCTURAL DRAFTSMAN, 6 years' experience, checking and detailing tall and industrial buildings, technical graduate. P. W. 189, Eng. News.

Superintendents, Etc.

GRADUATE ENGINEER, 29, six years' experience on extensive surveys, irrigation, railways, foundations, mining and valuation surveys; responsible position only; references. P. W. 131, Eng. News.

YOUNG MAN, graduate engineer, wishes engineering employment; character of work and location immaterial. P. W. 158, Eng. News.

SUPERINTENDENT OF PAVING; 18 years' experience; eight years on wood block; will go anywhere. P. W. 159, Eng. News.

DO YOU NEED A FIRST-CLASS ENGINEER? Perhaps I may suit; 14 years' railroad, sanitary and general construction; desire executive position in field or office; have position at present. P. W. 161, Eng. News.

COMPETENT DESIGNER, detailer and draftsman with extensive experience on structural steel, concrete and timber construction desires position; first-class references; also experienced in estimating and ornamental iron work. P. W. 150, Eng. News.

TECHNICAL GRADUATE, 6 years drafting, checking, estimating, wants position; architect preferred P. W. 206, Eng. News.

GRADUATE ENGINEER, 30, with thorough experience in estimating, designing and construction of steel, brick and reinforced-concrete work, design and building of cement plants; experienced in organizing forces and handling men and work; closing engagement May 27 as engineer in charge of construction on work amounting to $325,000; responsible position desired; references. P. W. 200, Eng. News.

TECHNICAL GRADUATE, 29, six years' experience on reinforced concrete and factory construction desires position as architect or contractor's superintendent; at present employed. P. W. 198, Eng. News.

ENGINEER; ten years in South America; thorough acquaintance language, customs, costs. Best references. P. W. 157, Eng. News, Chicago.

GRADUATE ENGINEER, 28, five years' experience, surveys, railroad construction, topographic surveys and road construction tropics, go anywhere, prefer Spanish America. P. W. 193, Eng. News, Chicago.

ENGINEERING ASSISTANT experienced in cost accounting, statistical work, correspondence and office management, seeks position. P. W. 194, Eng. News.

AS ASSISTANT PROFESSOR or instructor; two years' experience teaching structural engineering and materials testing with a leading Eastern institution; five years' previous experience as structural designer. Desire new location with opportunity for advancement. P. W. 191, Eng. News.

SUPERINTENDENT of construction capable of taking charge of field and office work on locks, dams and water works projects. Associate Member American Society of Civil Engineers; twelve years' experience; open for engagement May 1. P. W. 190, Eng. News.

MAN OF WIDE EXPERIENCE desires position with contractor; general superintendent, manager, estimator; has been principal and knows what employer wants. P. W. 185, Eng. News.

FOREMAN (Italian), good education in both languages; good knowledge in every kind of work. P. W. 183, Eng. News.

YOUNG MAN, American, 24 years of age, with about five years' experience as rodman, instrumentman and inspector on roadways, highway bridges, railroad surveying and construction, and subway construction, seeks position with engineering or conytracting firm; willing to travel or locate anywhere; employed at present; salary not main object. P. W. 213, Eng. News.

ENGINEER DRAFTSMAN and instrumentman, 12 years' experience in general work for industrial buildings in steel, reinforced concrete, timber construction, foundation work, field work, etc., wishes position with industrial corporation, general contractor or consulting engineer. P. W. 203, Eng. News.

POSITIONS OPEN

A CENTRIFUGAL PUMP DESIGNER with experience in designing high-speed pumps of small and medium sizes for high- and low-head service; applicants must state fully their experience, age and salary expected. P. 153, Eng. News.

EXPERIENCED DRAFTSMEN, neat letterers, for valuation maps and profiles. Location Tennessee. Salary $75.00. Submit samples of work and give experience. P. 214, Eng. News.

GRADUATE CIVIL or MECHANICAL ENGINEER with one or two years' experience preferred for position in engineering and sales department. Character and natural ability will count more than experience. Good opportunity for advancement after one or two years experience in estimating and drafting. Give complete itemized statement of education and experience, also salary desired. P. 195, Eng. News.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

ENGINEERS, ARCHITECTS AND DRAFTSMEN wanted. The Kansas City Engineering Agency, 323 Midland Building, Kansas City, Mo.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

CONTRACTORS—On your next job let me board your men and furnish commissary. I will pay commission. L. B. 175, Eng. News.

WANTED

COPIES OF ENGINEERING NEWS of March 4, 11, 18 and 25, 1915. Will pay 20 cents each. Subscription Dept., Engineering News.

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

BUSINESS OPPORTUNITIES

LIMESTONE QUARRY TO LEASE at Ogdensburg, N. J.; railroad siding; crushing machinery; best quality agricultural lime. Address Frederic Bigelow, 1 Clinton St., Newark, N. J.

CONSTRUCTION COMPANY (specializing concrete work), newly incorporated, offers good opportunity to man who can invest at least three thousand dollars ($3000). No triflers. Address Concrete, Room 416, 145 Nassau St., N. Y. C.

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of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer.

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These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter takcn from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

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Equipment Wanted items appear at the end of this list.

N

ADVERTISERS' NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

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BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, George B., 29 Broadway, New York, N. Y.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
JENNISON-Wright Co., The, 313 Huron St., Toledo, O.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal & Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095)

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2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

BELT CONVEYORS

1—14" and 1—16" 50' centers.—GIVIN.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72″x20′, 1—78″x20′, 1—72″x18′, 1—72″x15′, 1—72″x 14′, triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

6—550 H.P. Altman Taylor B. & W. type, 150 lbs. pressure, complete with steel supporting structure—Arranged to set two in battery; one battery equipped with Taylor stokers.—HENRY R. KENT & CO., 141 Broadway, New York, N. Y.

2 New Marine, 10x11′; prompt delivery.—WHITNEY.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

96—42 cu.ft. Stuebner tip-over buckets.—SCHMIDT.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed. —GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

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45—80,000 lb. flat cars, cheap.—WHITNEY.

[36″ Gauge]

50—4 yd. 1-way So. Baltimore, $50 each. 8—K. & J. 3-yd. 2-way, overhauled, $70 each.—GRIMSHAW.

[24″ Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15′ elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

1 Portable Champion No. 3 jaw stone with elevators.—JENNISON.

1 Sturtevant, in perfect condition, used but 10 days; will sell cheap.—ARTHUR L. BATES, Meadville, Pa.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

DRILLS

6 Ingersoll, type F-24, and 2 class "C" Little Giant rock drills.—BECKWITH.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

100 HP. Elyria tandem gas engine with air tank and engine; all in good shape; will sell cheap.—THE JACOBS LUMBER CO., Youngstown, Ohio.

GENERATORS

Western Electric 100 K.W. dir, con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

GRADERS, ELEVATING

1 Austin.—AMERICAN.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$175 K & E No. 5025 Precision 3 screw Y level, new, $133; $220 K & E 5040 Fine Tr., good working order, $125—Guaranteed. 99 others. Rentals, repairs supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

Keuffel & Esser mining and engineering transit, a bargain. —E. P. DUPEN, Bisbee, Ariz.

Keuffel & Esser Engineer's transit No. 5040 X, Serial 2723, complete; Gurley level complete; 2 leveling rods; 2 range poles; steel marking pins; 75 and 100 ft. steel tapes. All equal to new. Will arrange for inspection.—F. S. 212, Eng. News.

LOCOMOTIVES

[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36″ Gauge]

10 10x16″ Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14″ Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

20 ton, 11x16″ Davenport, built 1907, $1175.—GRIMSHAW.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50′ boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21′ boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20′ boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

2

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

1 Foote No. 3 continuous mixer.—JENNISON.

2 Foote continuous mixers.—AMERICAN.

PILING, SHEET STEEL

165 pcs. Lackawanna 14″ arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

5000 pcs. Lackawanna and Carnegie. What are your needs?—GRIMSHAW.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

300,000 rethreaded wrought, sizes ¾″ to 24″.—MARINE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

RAILS

40 ton of 35 lb. with fish plates.—PIPE.

20,000 ft. 24″ gauge 20 lb. portable track.—SCHMIDT.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1—5 ton Kelley tandem and 1—7 ton Chicago tandem, both rollers have been used but upon two jobs and are in most excellent condition.—Address the AMERICAN NATIONAL BANK, Findlay, Ohio.

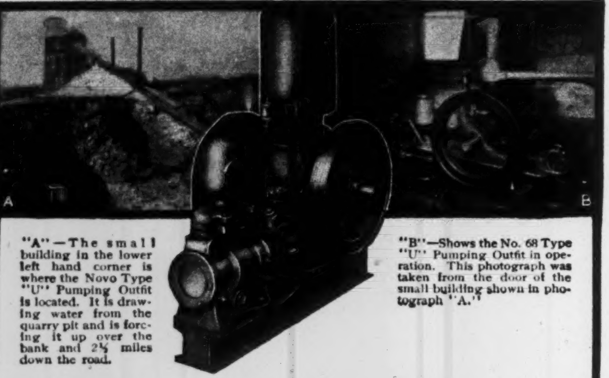
1 Case 10 ton 3 wheel roller and 1 Buffalo-Pitts 10 ton 3 wheel.—JENNISON.

Tandem for paving, condition fine.—F. S. 167, Eng. News.

1—8 ton Austin gasoline, perfect condition, rare bargain. —B. G. COON CONSTRUCTION CO., 274 Union St., Luzerne, Pa.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.



"A"—The small building in the lower left hand corner is where the Novo Type "U" Pumping Outfit is located. It is drawing water from the quarry pit and is forcing it up over the bank and 2½ miles down the road.

"B"—Shows the No. 68 Type "U" Pumping Outfit in operation. This photograph was taken from the door of the small building shown in photograph "A."

Stop Hauling Water!

New York State Uses Novo

Mr. Barber, Supt. of State work in New York, finds that the Novo Type "U" Pumping Outfit is the one outfit that can be depended on for long distance high pressure pumping demanded on State Road work. This is the pump that was used on one of the model roads the State built at Clarence, New York. He says:

> "I received the pictures of the Novo Pumping Outfit and think they are fine, and I am thanking you for same.
>
> "This Novo Pumping Outfit is forcing water about two and one-half miles and supplying both of our big Koehring Mixers.
>
> "I hope this will help you in making sales of Novo Pumping Outfits. I think they are the best I ever saw."

Contractors have long felt an urgent need for a good reliable pump that would stand the unusual strain of long distance high pressure pumping and at the same time be light enough to be easily portable. For the first time this need is fully supplied in the

Novo Type "U" Pumping Outfit

This outfit exactly fills the requirements for such work as road construction where water many times must be forced two or three miles—for concrete mixers in side-walk construction—for well drilling and boiler supply in oil fields—for factory water supply. It does the work as well as a Triplex pump and costs half as much.

For lower pressure, shorter distance pumping we have two outfits—Fig. 1401 and the Novo Medium Pressure Pumping Outfit—which are especially well adapted.

No licensed engineer or fireman is required to run the NOVO—there is no coal to be moved or stolen. You can probably save enough on your present methods to pay for the NOVO during the first few months of its use.

The Reliable Novo Engine which operates the Type "U" Pump runs on kerosene, alcohol or distillate. The pumping outfit is furnished either truck or skid mounted.

Why not take the time *right now* to ask us how the Novo Type "U" will save you money on your present methods? We will gladly tell you if you will write us fully. Do it now while the matter is before you.

NOVO REG. U.S. PAT. OFF.
ENGINES AND OUTFITS

NOVO ENGINE CO., 367 Willow St., Lansing, Mich.
or Station A, San Jose, Cal.

CLARENCE E. BEMENT,
Secretary and Manager

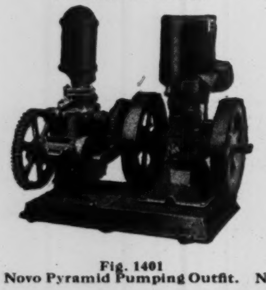


Fig. 1401
Novo Pyramid Pumping Outfit.

NO TANK
NO FAN
NO FREEZING
TROUBLES

Fig. 182
Novo Medium Pressure Pumping Outfit.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—14B Bucyrus traction revolving ⅝ yd.—GIVIN.

⅝ yd. Thew, $2250; ⅝ yd. Bucyrus 14 B, $2500. Both traction and good.—GRIMSHAW.

Thew No. 2—Railroad trucks, unusual bargain.—KEW GARDENS CORPORATION, 56 Wall St., New York, N. Y.

TRACTION ENGINES

1 Buffalo-Pitts., 22 H.P., and 1 Huber, 16 H.P.—AMERICAN.

TRACTION HAULAGE OUTFIT

One 30-60 HP. Pioneer tractor and six 6-yd. steel dump wagons; in first-class condition. Will sacrifice for quick sale. Address 617 Chronicle Bldg., Houston, Texas.

TRAVELING CRANES

1 15-ton electric 36′ 6″ span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

WAGONS

4 Buffalo-Pitts., 10 cu.yds. cap. each.—AMERICAN.

Wanted

1—10 ton macadam roller. Send information to W. 168, Eng. News.

2000 lb. tensile testing machine for cement briquettes. Give lowest cash price with full descriptions.—PHILADELPHIA QUARTZ CO., Chester, Pa.

2500 tons or more 70 lb. relayers; describe fully; name best price and terms. W. 196, Eng. News.

For use in Lake Ontario, near Toronto, boat that can be used or converted into House Boat or Mess Boat for Dredge Crews. Give full description of boat, age, location, condition and price.—CANADIAN STEWART CO., LTD., 30 Church St., New York, N. Y.

FOR SALE

Air Compressors
Blowers and Fans
Boilers
Buckets
Cars
Derricks
Drills
Electric Locomotives
Elevators
Elevator Engines
Engines
Feed Water Heaters
Generators
Grout Machines
Machine Tools
Pipe
Pumps
Oil Separators
Rails
Steel Pontoon
Turn Tables
Valves and Fittings

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.

Plant and Equipment for Sale

Including locomotives, gondolas, derricks, concrete mixers, rock drills, buckets, pumps, engines, elevators and conveyors. *Ask for new list with revised prices.*

ALABAMA POWER COMPANY,
Birmingham, Ala.

Hydraulic Dredge and Other Machinery For Sale

One—20″ Hydraulic dredge, complete with Pontoons, Pipe Line, etc.
One—1¼-yard Vulcan Steam Shovel.
One—No. 3½ Keystone Well Drilling Machine.

For Further Information
Address P. O. Box 27, Rochester, N. Y.

ERIE Type B—3/4 yd. Revolving SHOVEL
Built by

BALL ENGINE COMPANY, ERIE, PA. Write for Bulletin S-10

Bids received until May 21, 1915.

Bridges

Rome, Ga.

Sealed proposals will be received by the Board of Commissioners of Roads & Revenue, Floyd County, Ga., until twelve o'clock noon of May 21st, 1915, for the construction of the following bridges, with the City of Rome, said County.

(a) Second Avenue Bridge—A reinforced concrete arch bridge, forty foot roadway and two eight foot sidewalks, total length of about three hundred and seventy-six (376) ft.

(b) Reinforced concrete arch bridge at Broad Street, forty foot roadway and two eight foot sidewalks, total length of about four hundred and seven (407) feet.

(c) Steel truss bridge on concrete substructure, at Fifth Avenue, with a thirty-six and one-half foot roadway and two eight foot sidewalks, total length three hundred and sixty-seven (367) feet. This bridge will have a movable channel span with a channel clearance of about one hundred feet.

Certified check for One Thousand Dollars must accompany each bid.

Instructions to bidders, plans, specifications, forms of contracts, proposal and bond may be seen in the offices of the Consulting Engineers, Greiner & Whitman, Fidelity Building, Baltimore, Md., W. C. Spiker, Hurt Building, Atlanta, Ga., and in the office of Kieffer Lindsey, County Engineer, at Rome, Ga.

Contractors can obtain complete sets of plans, specifications, etc., from W. C. Spiker, for the sum of $5.00 per set for the Fifth Avenue Bridge and $5.00 per set for the Second Avenue and Broad Street bridges combined, and the Board reserves the right to reject any or all proposals and to make the award for either bridge separately or all bridges together, according to the best interest of the County.

After bidding on plans as above stated bidders may also submit alternate designs and specifications with their bids thereon, such alternate designs to be approved by the County Consulting Engineers. This April 19th, 1915.

J. G. POLLOCK, Commissioner.
C. L. CONN, Commissioner.
W. N. HORTON, Commissioner.
P. C. GRIFFIN, Commissioner.
C. M. YOUNG, Commissioner.
J. S. DAVIS, Commissioner.

⁂

Bids received until May 18, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. Tuesday, the 18th day of May, 1915, for the repair of highways in the following counties:

Allegany (one contract—surface treatment, one contract—resurfacing); Cayuga (one contract—resurfacing); Franklin (one contract—surface treatment, one contract—resurfacing); Fulton (one contract—surface treatment); Genesee (one contract—surface treatment, one contract—broken stone); Livingston (three contracts—surface treatment, one contract—broken stone); Monroe (two contracts—surface treatment, four contracts—broken stone); Hamilton (one contract—surface treatment); Ontario (one contract—surface treatment, one contract—resurfacing, one contract—broken stone); Madison (two contracts—surface treatment); Montgomery (one contract (surface treatment); Oneida (three contracts—surface treatment); Otsego (one contract—surface treatment); Herkimer (one contract—surface treatment); Orange (two contracts—resurfacing); Orleans (one contract—surface treatment, one contract—broken stone); Oswego (two contracts—surface treatment; Rensselaer (one contract—resurfacing); Seneca (one contract—surface treatment); Steuben (one contract—resurfacing); Tompkins (one contract—resurfacing); Washington (one contract—resurfacing); Wyoming (one contract—surface treatment, one contract—broken stone); Yates (one contract—surface treatment).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.

I. J. MORRIS, Secretary.

Bids received until May 14, 1915.

Intercepting Sewers and Connections

OFFICIAL NOTICE NO. 10

Published by authority of the Sewerage Commission of the City of Milwaukee.

Milwaukee, Apr. 23rd, 1915.

Sealed proposals for constructing intercepting sewers and connections on both sides of the Milwaukee River in the City of Milwaukee will be received by the Sewerage Commission at its office in the City Hall, until 2:00 P.M. on the 14th day of May, A.D. 1915, at which place and time the proposals will be publicly opened and read.

The work to be done may be divided into two separate contracts numbered 9 and 10, or further sub-divided into five contracts numbered 11, 12, 13, 14 and 15.

Number 9 embraces the construction of an intercepting sewer and branches on the east side of Milwaukee River from a point below the dam to the intersection of Broadway and Detroit Streets, and requires the construction of approximately:

7927 feet brick and concrete sewer in open cut from 30" to 51" diameter.
3992 feet brick and concrete sewer in tunnel from 30" to 51" diameter.
3844 feet terra cotta pipe sewer from 10" to 24" diameter.
1762 feet of manholes and pile and timber foundations.

Number 9 may be sub-divided into three contracts numbered 11, 12 and 13.

Number 10 embraces the construction of an intercepting sewer and branches on the west side of Milwaukee River from the Holton Street Viaduct to the intersection of West Water and Fowler Streets, and requires the construction of approximately:

8480 feet brick and concrete sewer in open cut from 30" to 48" diameter.
2340 feet terra cotta pipe sewer in open cut from 10" to 18" diameter.
1105 feet of manholes and pile and timber foundations.

Number 10 may be sub-divided into two contracts numbered 14 and 15.

All as shown upon the plans and described in the specifications now on file in the office of the Sewerage Commission.

The time allowed for completing contract No. 9 or 10 shall be two hundred and fifty (250) working days. The time for completing either contracts No. 11, 12, 13, 14 and 15 shall be two hundred (200) working days. (Working days meaning such as are particularly described in the contract.)

The liquidated damages for not completing the work within the time agreed shall, for each day's delay, be an amount equal to one-half of one percentum of the aggregate cost of the work embraced in the contract.

Each proposal must be accompanied by a cash deposit of, or, in lieu thereof, by a certified check drawn upon a national or state bank doing business in the City of Milwaukee, to the order of the "Sewerage Commission of the City of Milwaukee," for the following sums; failing in which the bid will be rejected:

For proposal Number 9	$38,500.00
For proposal Number 10	25,000.00
For proposal Number 11	10,200.00
For proposal Number 12	13,000.00
For proposal Number 13	15,300.00
For proposal Number 14	11,400.00
For proposal Number 15	13,600.00

Specifications and blank forms of proposals can be obtained and detail plans examined, at the office of the Sewerage Commission in the City Hall.

The prices must be written in the proposal and also stated in figures. In case of variation the written prices will prevail.

All cash deposits or certified checks deposited by bidders to whom the contract is not awarded will be returned upon application to the Secretary of the Commission after the contract has been awarded or after the rejection of all bids. The cash deposit or certified check which may be deposited by the successful bidder will be returned to him as soon as the contract is properly executed and approved by the City Attorney and Sewerage Commission.

Full sets of detailed plans will be sent to any contractor desiring to bid upon receipt of ten dollars ($10.00). Said amount to be returned upon receipt of plans in good condition.

The Sewerage Commission of the City of Milwaukee reserves the right to reject any and all bids submitted.

J. H. FOWLES, Secretary.

Countersigned:

LOUIS M. KOTECKI, Comptroller.

⁂

U. S. ENGINEER OFFICE, Kansas City, Mo., April 10, 1915.—Sealed proposals for constructing about 9000 feet standard revetment on Missouri River, about 24 miles below Kansas City, and two miles from Atherton, will be received at this office until 12 M., May 10, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

Bids received until May 28, 1915.

Notice to Bridge Contractors

Canton, N. Y.

Sealed proposals, endorsed "Proposal for Morley Bridge," will be received by the Town Board of the Town of Canton, N. Y., at the Office of the Town Clerk in the Village of Canton, N. Y., until 2 P.M. on the 28th day of May, 1915.

The work consists of removing the superstructure of the present bridge over the Grasse River at Morley, and piling it in neat piles where directed by the Town Superintendent, and furnishing and erecting the superstructure of a new steel truss bridge of two spans of 79' 9" each, with a roadway of 18 feet in width, and one sidewalk of 5 feet in width, with a concrete floor.

Each proposal must be accompanied by a certified check, or its equivalent, for ten per cent. of the amount of the proposal.

A bond, approved by the Supervisor, must be furnished by the successful bidder.

Plans are on file with the Town Clerk, and specifications may be obtained from him or from the Supervisor.

The Town Board reserves the right to reject any or all proposals.

C. G. CHANEY, Supervisor.
H. M. BARBER, Town Clerk.
A. H. WILLIAMS, Town Supt.

Dated May 3rd, 1915.

◆

Bids received until May 11, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Tuesday, the 11th day of May, 1915, for the repair of highways in the following counties:

Cattaraugus & Chautauqua (one contract—surface application 33.38 miles); Cayuga (one contract—surface treatment, 11.24 miles); Cortland County (one contract—surface treatment, 11.22 miles); Dutchess (two contracts—surface treatment, 23.95 miles); Erie (one contract—surface treatment, 22.79 miles); Lewis (one contract—surface treatment, 15.77 miles); Ontario & Livingston (one contract—surface treatment, 22.33 miles); Monroe (two contracts—surface treatment, 41.41 miles); Niagara (two contracts—surface treatment, 52.57 miles); Ontario (one contract—surface treatment, 18.42 miles); Orleans (one contract—surface treatment, 20.54 miles); Onondaga (one contract—surface treatment, 14.91 miles); Rensselaer (one contract—surface treatment, 4.14 miles); Suffolk (one contract—surface treatment, 7.54 miles); Tompkins (one contract—surface treatment, 4.49 miles); Westchester (one contract—surface treatment, 25.01 miles).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

◆

Bids received until May 25, 1915.

Water Pipe

Philadelphia, Pa.

Bids will be opened on May 25, 1915, at noon, in Room 225, City Hall, Philadelphia, Pa., for furnishing and laying cast iron water pipe under Contract No. 260, containing approximately 17,000 feet of 48 inch pipe, 3300 feet of 30 inch, and 21,000 feet of 24 inch and under. Plans and specifications for which a deposit of $5.00 is required, and any further information, can be had at the Bureau of Water, Room 701, City Hall, Philadelphia.

C. E. DAVIS, Chief of Bureau.

Bids received until May 28, 1915.

Notice to Bridge Contractors

Canton, N. Y.

Sealed proposals, endorsed "Proposal for Bridge on Canton-Pierrepont Road," will be received by the Town Board of the Town of Canton, N. Y., at the Office of the Town Clerk in the Village of Canton, N. Y., until 2 P.M. on the 28th day of May, 1915.

The work consists of removing the superstructure of the present bridge over Granis Brook on said Road in such a manner that said bridge can be used again, and placed where directed by the Town Superintendent, and furnishing and erecting the superstructure of a new steel truss bridge of one span of 46 feet, with roadway of 18 feet in width, complete and ready for the concrete floor.

Each proposal must be accompanied by a certified check, or its equivalent, for ten per cent. of the amount of the proposal.

A bond for the whole amount, approved by the Supervisor, must be furnished by the successful bidder.

Specifications may be obtained from the Town Clerk or Supervisor.

The Town Board reserves the right to reject any or all proposals.

C. G. CHANEY, Supervisor.
H. M. BARBER, Town Clerk.
A. H. WILLIAMS, Town Supt.

Dated May 3rd, 1915.

◆

Bids received until May 25, 1915.

Brick, Segment Block and Terra Cotta Pipe Sewers

Wilkes-Barre, Pa.

SEALED PROPOSALS will be received at the City Clerk's Office, Wilkes-Barre, Pennsylvania, until Tuesday, May 25th, 1915, at 12 o'clock, Noon, for furnishing all labor and materials and constructing brick, segment block and terra cotta pipe sewers in the City of Wilkes-Barre in accordance with plans and specifications, copies of which may be had upon application to B. K. FINCH, City Engineer, upon payment to him of the sum of Five Dollars ($5), which will be refuned to bidders, provided said specifications are returned to the City Engineer on or before June 1, 1915. Proposals to be endorsed "Proposals for Sewer Construction" and addressed to Fred H. Gates, City Clerk, and must be accompanied by a certified bank check in the sum of One Thousand Dollars ($1,000), conditioned upon the successful bidder entering into a contract for the completion of said work. The firms who submit bids to those bidding on the sewer, to furnish to said bidders vitrified segment sewer tile, must file with the City Clerk, on or before May 25th, 1915, at 12 o'clock Noon, a Surety Company Bond in the sum of Ten Thousand Dollars ($10,000) guaranteeing said tile for a period of five years from the date of the completion of the sewer. The City Council reserves the right to reject any or all of the bids.

C. N. LOVELAND,
Superintendent of the Department of Streets and Public Improvements.

◆

Bids received until May 11, 1915.

To Paving Contractors

Anderson, S. C., April 24, 1915.

Sealed proposals on blank forms furnished by the City and addressed to the Board of Paving Commissioners will be received until Noon, May 11, 1915, for furnishing all material, labor, etc., for street paving.

The work will consist of approximately seventy-five thousand (75,000) square yards of street paving, including all classes.

Each bid must be accompanied by a certified check, made payable to the City Clerk and Treasurer, for five (5%) per cent. of price bid.

The right is reserved by the Board of Paving Commissioners to reject any, or all, or any portion of bids.

Specifications can be had and additional information gotten at the office of the City Engineer, Anderson, S. C.

W. A. SANDERS, City Engineer.
J. H. GODFREY, Mayor.

Bids received until May 25, 1915.

Sewerage System

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard time, of the 25th day of May, 1915, and then publicly opened and read, for the construction of a Sewerage System for certain portions of the Village of Rittman, Ohio.

The work to be done includes the construction of approximately 5.36 miles of vitrified pipe sewers, ranging in size from 6 to 15 inch, to be located on the several streets and thoroughfares and private right-of-ways in the Village.

Bids will be made upon the work as a whole.

Copies of the plans, proposal forms, specifications, and forms of bonds and contract can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Ten Dollars ($10.00) with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded on the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of proposal, or by a bond with surety or sureties satisfactory to the Village Council.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bid which it deems most favorable to the Village of Rittman, Ohio.

By Order of the Village Council.

VANCE HICKIN, Clerk.

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Bids received until May 21, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Friday, the 21st day of May, 1915, for the improvement of Highways in the following counties:

Broome, 3 highways (1.03; 0.41; 0.28); Cattaraugus, 3 highways (5.62; 3.95; 6.88); Delaware, 3 highways (7.69; 11.40; 5.84); Genesee (approx. length 4.49); Greene (approx. length 4.43); Oneida (approx. length 5.73); Ontario, 4 highways (1.38; 1.23; 8.63; 1.53); St. Lawrence, 2 highways (5.07; 3.09); Schenectady (approx. length 3.34); Suffolk (approx. length 10.50); Washington, 2 highways (3.34; 5.96).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specification and contract agreement.

EDWIN DUFFEY, Commissioner.

I. J. MORRIS, Secretary.

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Bids received until May 18, 1915.

Street Paving

Charleston, S. C., April 16, 1915.

Sealed Proposals in duplicate will be received at this office until 1 P.M. Tuesday, May 18th, 1915, for 65,000 square yards, more or less, of paving on concrete base, of which it is estimated that 20,000 square yards to 25,000 square yards will be Creosoted Wood Block and the remainder Sheet Asphalt, Asphaltic or Bituminous Concrete or Bitulithic. Specifications will be furnished prospective Bidders upon receipt of $5.00 as guarantee for their return. The right is reserved to reject any or all bids.

J. H. DINGLE, City Engineer.

Bids received until May 25, 1915.

Sewage Treatment Plant

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard time, of the 25th day of May, 1915, and then publicly opened and read, for the construction of a Sewage Treatment Plant for the Village of Rittman, Ohio.

The work to be done includes the construction of a pump station with electric driven centrifugal pumps, concrete sedimentation and dosing tanks, 1.25 acres of intermittent sand filters and an earth dike.

Bids will be made upon the work as a whole.

Copies of the plans, proposal forms, specifications, and forms of bonds and contracts can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Ten ($10.00) Dollars with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded on the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of proposal, or by a bond with surety or sureties satisfactory to the Village Council.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bid which it deems most favorable to the Village of Rittman, Ohio.

By Order of the Village Council.

VANCE HICKIN, Clerk.

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Bids received until May 18, 1915.

Water-works Improvement

Paris, Illinois.

Sealed proposals will be received by the City Clerk of Paris, Edgar County, Illinois, until 10 o'clock A.M., May 18, 1915, for the construction of four earth dams, a diversion channel, a wet well and an intake, and two sewers, at which time they will be publicly opened and read.

Bids will be received on four alternatives, one of which will be chosen. The work under the alternatives will consist of about:

Class of Work	Alternative A	Alternative B	Alternative C	Alternative D
Earth Excav. cu.yd.	55,000	8,000	53,000	4,600
Earth Fill cu.yd.	55,000	55,000	21,000	21,000
Rock Excav. cu.yd.	3,400	170	3,300	90
Concrete cu.yd.	2,500	5,400	1,600	3,500
15-in. pipe sewer linear feet	3,400	800	3,400	800

Copies of the contracts, plans and specifications and information for bidders are on file at the office of the City Clerk, Paris, Illinois, or they may be obtained by application to the engineers, Fleming, Babbitt and Enger, Urbana, Illinois.

A charge of fifteen dollars will be made for each set of plans, specifications, etc., which charge will be refunded upon the return of the complete set in good condition on or before June 18, 1915.

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Contractors

BIDS OPENED MAY 18, 1915,

for the construction of Section No. 2 of Route No. 49, being a part of the Culver Rapid Transit Railroad.

A three-track elevated railroad in the Borough of Brooklyn, beginning at a point in Gravesend Avenue about 525 feet south of Bay Parkway and extending southerly over Gravesend Avenue and Shell Road to a point about 525 feet south of Avenue X produced.

Write or call concerning form of contract, plans and specifications.

PUBLIC SERVICE COMMISSION FOR THE FIRST DISTRICT,
154 Nassau Street, New York City.

Bids received until May 11, 1915.

Proposals for Street Improvement

Village of Larchmont, Westchester County, N. Y.

Notice is hereby given, pursuant to law, that the Board of Trustees of the Village of Larchmont, in the County of Westchester, State of New York, on the 11th day of May, 1915, at 8:30 o'clock p.m., in the Village Hall in said Village, will receive sealed proposals for the construction of a permanent pavement in that portion of Larchmont Avenue in said Village extending from the southerly side of Magnolia Avenue to the Boston Post Road.

All proposals must be sealed and addressed to the "Clerk of the Village of Larchmont, Westchester County, New York." Each bidder must state in his bid his full name, residence and place of business, and if a corporation the names of its officers and its principal place of business.

The prices must be given in terms per square yard of finished surface.

Bidders must furnish their own specifications. They may submit such bids as they may desire relating to various classes of pavement.

The contractor will at his own expense before entering upon the work be required to furnish a contingent liability policy of a Surety Company approved by said Board of Trustees, in the sum of $15,000, properly insuring said Village against loss and damages by reason of any act or omission on the contractor's part or that of his employees.

Each bidder must present his proposal accompanied by a certified check for $500, payable to the order of the Treasurer of the Village of Larchmont. Check of the successful bidder will be retained by said Village as security to guarantee the execution of a proper contract by the contractor embodying the specifications submitted and also the deposit with said Village of the bond hereinafter mentioned and the approved liability policy aforesaid. All checks of unsuccessful bidders will be returned to them as soon as practicable.

The contractor shall furnish a bond in the penal sum of $16,000, conditioned for the faithful performance by him of the work specified in the contract.

Details as to measurements, etc., and other information may be obtained by making application to George S. Towle, C. E., Larchmont, New York.

Larchmont, New York, April 30th, 1915.

EUGENE D. WAKEMAN,
Clerk of the Village of Larchmont.

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Bids received until May 26, 1915.

Water-works Improvements

Albion, N. Y.

Sealed proposals will be received by the Village of Albion, Orleans County, N. Y., up to 12 o'clock noon, May 26th, 1915, for furnishing the materials and performing the work connected with improvements and extensions to the Water-works System of said Village.

There will be required approximately the following material: About 23,900 lineal feet of 6 inch cast iron water mains; 50 fire hydrants; 60 gate valves; Pumping machinery consisting of two triplex power pumps operated by internal combustion engines; a mechanical gravity Filtration Plant, etc.

A certified check, in an amount equal to two (2) per cent. of the amount of the bid, made payable to the Treasurer of the Village, must accompany each proposal.

Plans may be seen and specifications and blank forms of proposal procured at the office of the Clerk of the Village, Albion, N. Y., or at the office of the Engineers, J. F. Witmer Company, 97 and 98 Dun Building, Buffalo, N. Y.

The right is reserved to reject any and all bids.

EDWARD S. EATON, Village Clerk.

J. F. WITMER COMPANY, Engineers,
Buffalo, N. Y.
Albion, N. Y., May 3rd, 1915.

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U. S. ENGINEER OFFICE, Louisville, Ky., April 12, 1915.—Sealed proposals for two steel dump scows will be received here until 12:00 noon, Central Time, May 13, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

U. S. ENGINEER OFFICE, Wilmington, N. C., Apr. 26, 1915.—Sealed proposals for furnishing and delivering about 22,000 barrels of Portland cement will be received at this office until 12 M., May 26, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engrs.

U. S. ENGINEER OFFICE, Savannah, Ga., April 26, 1915.—Sealed proposals for construction and delivery of two (2) steel lighters will be received at this office until 12 o'clock, Noon (Eastern Standard Time), May 26, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Colonel, Engineers.

Bids received until May 10, 1915.

Proposals for State Road Work

Hartford, Conn.

SEALED PROPOSALS will be received by the State Highway Commissioner, Room 27, Capitol, Hartford, Conn., until 2 P.M. Monday, May 10th, 1915, for the following sections of state road work in accordance with plans and specifications on file in the office of the State Highway Commissioner and at the following places:

TOWN OF GREENWICH—About 8475 linear feet of Bituminous Concrete, Amiesite or Warrenite construction on the Boston Post Road. Plans and specifications at office of State Highway Commissioner, Hartford. TOWN OF WESTPORT—About 813 linear feet of Brick Pavement over a Concrete Base on the Boston Post Road. Plans and specifications at office of State Highway Commissioner, Hartford. TOWN OF SIMSBURY—About 5300 linear feet of Bituminous Concrete, Amiesite or Warrenite construction on Main Street. Plans and specifications at office of State Highway Commissioner, Hartford. TOWN OF ENFIELD—Widening of Bridge over Fresh Water Brook, together with grading, etc. Plans and specifications at Town Clerk's Office, Town Building, Enfield. All bids must be accompanied by a surety company bond or a certified check not less than one-third of the cost of the work. The State Highway Commissioner reserves the right to reject any and all bids. Dated at Hartford, Conn., April 29, 1915.

C. J. BENNETT,
State Highway Commissioner,
Room 27, Capitol, Hartford, Conn.

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PROPOSALS FOR STORM-WARNING LANTERNS—U. S. Department of Agriculture, Washington, D. C., April 15, 1915.—Sealed proposals for furnishing storm-warning lanterns, as specified, f.o.b. factory, will be received here until noon, May 18, 1915, and then opened. Information furnished upon application to the Chief of Weather Bureau. Samples of the lanterns proposed to be furnished, to be submitted in connection with bid. Envelopes containing proposals should be indorsed "Proposals for Storm-warning Lanterns," and addressed to Chief, U. S. Weather Bureau, Department of Agriculture, Washington, D. C.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 20, 1915.—Sealed proposals for constructing about 2250 feet standard 3-row timber dike, and about 12,000 feet standard revetment on Missouri River, about 163 miles below Kansas City, and 9 miles below Glasgow, will be received at this office until 12 M., May 20, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, Wheeling, W. Va., May 3, 1915.—Sealed proposals for furnishing and delivering water turbines, air compressors, valve jacks, and gate winches, etc., for Dams Nos. 15 and 19, Ohio River, will be received at this office until 11 a.m. (Eastern time), June 2, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

U. S. ENGINEER OFFICE, Louisville, Ky., April 19, 1915.—Sealed proposals for a Steel Hull for Dredge "Nolin River" will be received here until 12 noon, central time, May 19, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

U. S. ENGINEER OFFICE, Pittsburgh, Pa., April 21, 1915.—Sealed proposals for building two lockkeepers' houses at Dam No. 1, Monongahela River, will be received at this office until 12 M. (Eastern Standard Time), May 21, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

PROPOSALS FOR BOOMS, MASTS, STIFF LEGS, HOISTING ENGINES, CONCRETE MIXERS AND CLAM SHELL BUCKETS.—Mississippi River Commission, 1st and 2d Districts, Room 20, Custom House, Memphis, Tenn., May 1, 1915.—Sealed proposals for furnishing and delivering booms, masts, stiff legs, hoisting engines, concrete mixers and clam shell buckets, will be received at this office until 11 a.m., May 21, 1915, and then publicly opened. Information furnished on application. E. M. MARKHAM, Maj., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 20, 1915.—Sealed proposals for constructing about 5900 feet standard 3-row timber dike on Missouri River, about 50 and 53 miles below Kansas City, and 1 mile below Napoleon and 1 mile above Camden, will be received at this office until 12 M., May 20, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for furnishing and placing stone riprap along lake face of main breakwater, Harbor Beach, Michigan, will be received at this office until 12 noon, May 11, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., May 5, 1915.—Sealed proposals for excavation of Earth and Rock, U. S. Power Plant Tail Race, St. Marys River, Mich., will be received at this office until 12 M., June 15, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 10, 1915.—Sealed proposals for constructing about 4,200 feet standard 3-row timber dike on Missouri River, about 12 and 20 miles below Kansas City, and about one-half mile below Cement City and near So. Liberty, will be received at this office until 12 M. May 10, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, Wilmington, N. C., Apr. 26, 1915.—Sealed proposals for furnishing and delivering about 19,700 tons of crushed stone will be received at this office until 1 P.M., May 26, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engrs.

U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., April 28, 1915.—Sealed proposals for constructing and delivering combination drill scow and dredge "General Gillespie" will be received at this office until 12 M., May 28, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 24, 1915.—Sealed proposals for constructing about 1000 feet standard 3-row timber dike, and about 5000 feet standard revetment on Missouri River, about 98 miles below Kansas City, and 6 miles below Waverly, will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 24, 1915.—Sealed proposals for constructing about 5500 feet standard 3-row timber dike on Missouri River, about 92 and 98 miles below Kansas City, opposite and about 6 miles below Waverly, will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for constructing and placing two timber cribs and replacing with concrete, timber superstructure, breakwater at Harbor Beach, Michigan, will be received at this office until 12 noon, May 12, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, Wheeling, W. Va., April 28, 1915.—Sealed proposals for furnishing and erecting steel lock gates for Dams Nos. 12 and 20, Ohio River, will be received at this office until 11 a.m. (Eastern time), May 18, 1915, and then publicly opened. Bids will be considered for lock gates for one or both dams. Information on application. T. H. JACKSON, Major, Engrs.

TREASURY DEPARTMENT, U. S. Coast Guard, Washington, D. C., April 22, 1915.—Sealed proposals will be received at this office until 2 o'clock P.M. of Wednesday, May 26, 1915, and then publicly opened, for moving and altering the Sandy Hook Coast Guard Station, Fort Hancock, New Jersey. Specifications and drawings, form of proposal, etc., and full information can be obtained upon application to the Superintendent, Fifth District, Coast Guard, Asbury Park, N. J., the Keeper, Sandy Hook Coast Guard Station, Fort Hancock, N. J., or to this office. E. P. BERTHOLF, Captain Commandant.

PROPOSALS FOR LEVEE WORK—Mississippi River Commission, 1st & 2d Districts, Room 20, Custom House, Memphis, Tenn., April 27, 1915.—Sealed proposals for constructing about 4,500,000 cubic yards of levee work in the Upper and Lower St. Francis, and White River Levee Districts, will be received at this office until 11 a.m., May 26, 1915, and then publicly opened. Information upon application. E. M. MARKHAM, Maj., Engrs.

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Classified Advertising

POSITIONS WANTED

Mechanical and Electrical Engineers

GRADUATE ELECTRICAL AND MECHANICAL ENGINEER with extensive experience in general engineering desires a position of office engineer with engineering corporation or chief engineer of industrial plant. P. W. 78, Eng. News.

Civil Engineers

CIVIL ENGINEER, college graduate; five years' experience, design and construction, docks, bridges, surveys. P. W. 179, Eng. News.

GRADUATE CIVIL ENGINEER wants work of any kind in the engineering line; five years' experience, land surveys, canal, roads, sewers and street paving. P. W. 76, Eng. News.

CIVIL ENGINEER, 45, now employed, is desirous of obtaining position in charge of construction with large company; experience includes railroad location, maintenance-of-way and construction, both steam and electric; general municipal work, with very large sewer design and construction work; highway construction; sewage-disposal experimentation and practice; drawing of specifications of many kinds; organization of construction work; planning records of cost for control purposes; field of work has extended from Atlantic to Pacific and from British Columbia to Central Venezuela; prefers local work, but will go abroad; has good working knowledge of Spanish. P. W. 132, Eng. News.

CIVIL ENGINEER; college graduate; Assoc. M. Am. Soc. C. E.; 10 years' experience, design and construction, docks, bridges, roads, canals, surveys. P. W. 152, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT, 31; graduate; nine years' wide experience on surveys, drainage, sewers, sewage disposal, water and paving; good draftsman and designer; available now; personal interview East or South. P. W. 154, Eng. News.

CIVIL ENGINEER, 17 years' experience, surveys and construction railways and hydraulic development; good draftsman; speak Spanish. P. W. 184, Eng. News.

CIVIL ENGINEER and Superintendent, Associate Member American Society. Ten years' experience. Three years railway surveys and construction. Three years engineer sewer construction. Three years superintendent sewer and water works. Speaks Spanish. References. P. W. 181, Eng. News.

CIVIL ENGINEER, graduate, 14 years' practical experience; water works and municipal consulting engineering; design and construction, earth, masonry, concrete and steel; investigations, reports, appraisals, fire protection; excellent references. P. W. 199, Eng. News.

CIVIL ENGINEER, technical education, 25 years' practical experience location and construction railroads, water-works, sewers, dams, canals, docks; satisfactory references. P. W. 249, Eng. News.

ENGINEER, 34, wants position at anything in civil engineering or associated work; salary secondary; broad experience in municipal construction work; Assoc. Mem. Am. Soc. C. E.; highest references. P. W. 208, Eng. News.

CIVIL ENGINEER AND BOOKKEEPER; 27; five years on railroad construction, two on sewer and municipal work, one as bookkeeper on irrigation work; desires position with engineer or contractor; owns level and transit. P. W. 223, Eng. News, Chicago.

GRADUATE ENGINEER, 29, six years' experience on extensive surveys, irrigation, railways, foundations, mining and valuation surveys; responsible position only; references. P. W. 131, Eng. News.

TECHNICAL GRADUATE, 24, three years' experience with general contractor, estimating, construction and cost keeping; salary secondary. P. W. 247, Eng. News.

GRADUATE CIVIL ENGINEER, Assoc. M. Am. Soc. C. E., desires position as location or constructing engineer, superintendent, foreman; age 30; married, no children; eight years' experience; railroad location and construction, water-power and irrigation construction; have handled 500 men; initial salary small, if chance of advancement on ability is good; references furnished; complete experience or personal interview vicinity New York; location immaterial; available May 20. P. W. 218, Eng. News.

WATER-SUPPLY, water power, dams, sewers; responsible charge, construction and design; present engagement soon terminates; age 34; Assoc. M. Am. Soc. C. E. P. W. 224, Eng. News.

YOUNG GRADUATE CIVIL ENGINEER, one years' experience on reinforced-concrete construction desires work; good man for contractor. P. W. 230, Eng. News.

CIVIL ENGINEER, university graduate, 2 years' building experience, now at concrete design seeks location with contractor or engineer, New York or vicinity. P. W. 231, Eng. News.

YOUNG MAN, graduate civil engineer, wishes work in the engineering line; location immaterial; salary secondary matter. P. W. 238, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER, who has done important work for leading concerns, expert designer and detailer, extensive and varied experience, steel and reinforced-concrete, wants responsible position; New York interview; best references. P. W. 245, Eng. News.

Surveyors

YOUNG MAN with 11 years' experience in railroad and general engineering desires position as transitman on any class of work; location immaterial; best references. P. W. 178, Eng. News.

Draftsmen

DRAFTSMAN, three years on architectural work and three years at steel detailing on mill and office buildings desires position. P. W. 235, Eng. News.

STRUCTURAL DRAFTSMAN; M. I. T. graduate; first-class detailer; 2½ years with leading New York firm. Box 85, Barnstable, Mass.

GENERAL EXPERIENCE, including structural steel, concrete, heavy timber, machinery, etc., open for a position; location, New York. P. W. 243, Eng. News.

ENGINEER AND DRAFTSMAN, 33, ten years' experience field and office work, estimating, designing and installing, building bridges, reinforced concrete and steel and general construction. P. W. 226, Eng. News.

CHIEF DRAFTSMAN, EXECUTIVE—Energetic, capable man, 32, married, possessing good education, executive ability, initiative, also varied mechanical, structural, business experience, now engaged as chief draftsman large manufacturing concern, wishes to secure connection in Philadelphia in similar line or as assistant to superintendent in executive capacity. P. W. 219, Eng. News.

TOPOGRAPHIC AND RAILROAD DRAFTSMAN, 30, experienced technical graduate, neat, rapid letterer, Reinhardt's style; permanent, responsible position only. P. W. 221, Eng. News, Chicago.

STRUCTURAL DRAFTSMAN, five years' general experience, wants position, New York or vicinity; $20 per week. P. W. 242, Eng. News.

BY ENGINEER with experience in the design and detailing of first-class structural work. P. W. 234, Eng. News.

ENGINEER AND DRAFTSMAN, technical graduate, seven years' experience, field and office, drainage and irrigation work; A-1 letterer, Reinhardt's style; samples. P. W. 216, Eng. News.

GRADUATE ENGINEER now employed wants to locate with private concern; willing to start from bottom, if chances are good; several years' experience; road work, sewers, dam, grade crossings and subway work; expert computer (formerly computer U. S. Coast and Geodetic Survey); location immaterial. P. W. 244, Eng. News.

TRACER OF ARCHITECTURAL DRAWINGS; accurate and neat; best references and moderate salary. P. W. 248, Eng. News, Chicago.

Superintendents, Etc.

CARPENTER FOREMAN; concrete forms or heavy timber work; references. P. W. 236, Eng. News.

SUPERINTENDENT OF PAVING; 22 years' experience; good organizer; temperate. P. W. 233, Eng. News.

YOUNG ESTIMATING, designing and sales engineer desires connection with live concern where extensive experience in reinforced concrete and general building construction with leveling contractors and architects, coupled with good personality and push, are required. P. W. 232, Eng. News, Chicago.

STEAM-SHOVEL ENGINEER AND MASTER MECHANIC, 30 years' experience on Bucyrus, Marion and Atlantic shovels and contractors' machinery; references on application. P. W. 239, Eng. News.

YOUNG MAN, graduate engineer, wishes engineering employment; character of work and location immaterial. P. W. 158, Eng. News.

COMPETENT DESIGNER, detailer and draftsman with extensive experience on structural steel, concrete and timber construction desires position; first-class references; also experienced in estimating and ornamental iron work. P. W. 150, Eng. News.

TECHNICAL GRADUATE, 6 years drafting, checking, estimating, wants position; architect preferred. P. W. 206, Eng. News.

TECHNICAL GRADUATE, 29, six years' experience on reinforced concrete and factory construction desires position as architect or contractor's superintendent; at present employed. P. W. 198, Eng. News.

GRADUATE ENGINEER, 28, five years' experience, surveys, railroad construction, topographic surveys and road construction tropics, go anywhere, prefer Spanish America. P. W. 193, Eng. News, Chicago.

ENGINEERING ASSISTANT experienced in cost accounting, statistical work, correspondence and office management, seeks position. P. W. 194, Eng. News.

AS ASSISTANT PROFESSOR or instructor; two years' experience teaching structural engineering and materials testing with a leading Eastern institution; five years' previous experience as structural designer. Desire new location with opportunity for advancement. P. W. 191, Eng. News.

SUPERINTENDENT of construction capable of taking charge of field and office work on locks, dams and water works projects. Associate Member American Society of Civil Engineers; twelve years' experience; open for engagement May 1. P. W. 190, Eng. News.

MAN OF WIDE EXPERIENCE desires position with contractor; general superintendent, manager, estimator; has been principal and knows what employer wants. P. W. 185, Eng. News.

FOREMAN (Italian), good education in both languages; good knowledge in every kind of work. P. W. 183, Eng. News.

SALESMAN (mechanical engineer), experienced in executive, financial and advertising work; can get business. P. W. 246, Eng. News.

SUPERINTENDENT, 15 years' experience, reinforced-concrete construction, especially bridges, water filtration, sewage-disposal works, foundation work, desires change from present connections to more responsible position; excellent reasons for changing; references furnished. P. W. 222, Eng. News.

HYDRAULIC ENGINEER, college graduate, 28; six years' experience, of which 2½ were with U. S. Geological Survey on stream flow, power and seepage investigations; one year in charge irrigation and power surveys; other experience in designing, structural and hydraulic; good draftsman; desires position with consulting engineer or as hydraulic instructor; references and copies of reports; salary $125. P. W. 225, Eng. News, Chicago.

ENGINEERING SALESMAN with technical education desires responsible position; 11 years' experience in designing, estimating, constructing and selling full line of crushing, mining, cement making and special machinery. P. W. 220, Eng. News.

PRECISE INSTRUMENTMAN—Expert, practical with the instrument and at any preliminary, detail surveying and mapping, supervise and do own instrument work; have just successfully completed large survey of a vast coal development project; had full charge and responsibility; will do the same for any appreciative party on any survey; record furnished of five years' practical experience and character. P. W. 227, Eng. News.

ENGINEER; technically educated; 11 years surveys and construction, three years contractor's engineer; thorough knowledge costs and economical handling work. P. W. 156, Eng. News, Chicago.

POSITIONS OPEN

STRUCTURAL DETAILERS wanted for structural shop in Havana, Cuba; must be fully experienced, rapid and accurate on mill-building work; state experience, references and salary at once; permanent position for right men. P. 240, Eng. News.

HYDRAULIC DREDGE FOREMAN wanted; must have had long experience in this particular work. Applicants please state age and salary required and give details of experience. P. 217, Eng. News.

Civil-Service Opportunities

Competitive examinations for the civil-service positions named below will be held on or up to the dates given. For detailed information, write the addresses specified.

ASSISTANT RAILROAD ENGINEER—Examination for the above position under the Illinois Public Utilities Commission will be held June 5, 1915, at points in Illinois. Open only to male residents of Illinois over 25. Salary $160 to $200 a month. For details and application blanks, write State Civil Service Commission, Springfield, Ill.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

ENGINEERS, ARCHITECTS AND DRAFTSMEN wanted. The Kansas City Engineering Agency, 323 Midland Building, Kansas City, Mo.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

WANTED

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

WANTED TO REPRESENT MANUFACTURER in New York territory, by man well acquainted with the pump and power plant field; several years successfully representing a prominent firm. Address A, Room 322-E, 30 Church St., New York City.

BUSINESS OPPORTUNITIES

CONSTRUCTION COMPANY (specializing concrete work), newly incorporated, offers good opportunity to man who can invest at least three thousand dollars ($3000). No triflers. Address Concrete, Room 416, 145 Nassau St., N. Y. C.

WANTED A GOOD SUPERINTENDENT to take charge of some state road work; must be able to handle men and know how to lay brick roads and macadam roads and must be able to put at least $5000 in the company; these are new contracts not started yet; will pay salary and commission to the right kind of man that is a hustler; great chance for some live man who is not afraid of work. B. O. 241, Eng. News, Chicago.

FOR SALE

BOUND HALF LEATHER "ENGINEERING NEWS," Volumes 51 to 58 inclusive; price $1.50 each for all. F. S. 237, Eng. News.

CORRESPONDENCE COURSES

of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

FOR ENGINEERS

The personal attention of the engineer who prepared these courses is given to all the work submitted by each subscriber and therefore the membership is limited.
Two separate courses are offered, under the following designations,—

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These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter taken from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

and save years spent in mis-directed efforts which are a necessary result of trying to acquire experience without the direct aid and assistance of an engineer properly experienced in such work.

Address M. 180, Engineering News

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Second Hand Equipment

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

Equipment Wanted items appear at the end of this list.

N

ADVERTISERS' NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

AMERICAN Construction Co., 108 N. Delaware St., Indianapolis, Ind.—All equipment listed as good as new, used only short time.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal & Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—Ingersoll-Rand H-3, 1000 Cu. Ft. Compound Steam Compound.—SAMPSON.

1—WB-2 Sullivan 909 Cu. Ft. Tandem Steam Driven Compound.—SAMPSON.

1—Rand Class "C" 527 Cu. Ft. and 2—Rand Class "C" 98 cu. ft. straight Line steam Driven.—SAMPSON.

1—Imperial XB-2, 1312 Cu. Ft. and 1—Imperial XB-2, 1190 Cu. Ft. Compound Belt Driven.—SAMPSON.

1—Ingersoll-Sergeant Class "E-1" 236 Cu. Ft. Belt Driven. —SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

2 Norwalk 700 cu.ft. and 1200 cu.ft.; excellent condition. Reason for selling, mine worked out. No further use for same.—HANDY BROS. MINING CO., Bay City, Mich.

BELT CONVEYORS

1—14" and 1—16" 50' centers.—GIVIN.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

96—42 cu.ft. Stuebner tip-over buckets.—SCHMIDT.

CARS

[Standard Gauge]

45—80,000 lb. flat cars, cheap.—WHITNEY.

[36" Gauge]

50—4 yd. 1-way So. Baltimore, $50 each. 8—K. & J. 3-yd. 2-way, overhauled, $70 each.—GRIMSHAW.

[24" Gauge]

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

1 Sturtevant, in perfect condition, used but 10 days; will sell cheap.—ARTHUR L. BATES, Meadville, Pa.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

100 HP. Elyria tandem gas engine with air tank and engine; all in good shape; will sell cheap.—THE JACOBS LUMBER CO., Youngstown, Ohio.

GENERATORS

Western Electric 100 K.W. dir, con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

GRADERS, ELEVATING

1 Austin.—AMERICAN.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10. 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$190 Sala Lt. Mt. transit V circle, good cond., $115; $100 Buff & B. Engrs. Dumpy level, inverting, fine, $70. Guaranteed. 99 others. Rentals, repairs, supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

Mountain Gurley transit, nearly new, $100. S. E. ROSS, 1033 Railway Exchange, Chicago, Ill.

LOCOMOTIVES

[Standard Gauge]

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

40-ton Climax geared, rebuilt; like new.—DALLETT.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

20 ton, 11x16" Davenport, built 1907, $1175.—GRIMSHAW.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

1—7 Ton, 4 wheel, Industrial, 21′ boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20′ boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

2 Foote continuous mixers.—AMERICAN.

Smith ½ yd. Novo engine. Slightly used.—DALLETT.

PILING, SHEET STEEL

5000 pcs. Lackawanna and Carnegie. What are your needs?—GRIMSHAW.

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Wrought with new threads and couplings, all sizes.—PIPE.

300,000 rethreaded wrought, sizes ¾" to 24".—MARINE.

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1 Cameron 3½x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

FOR SALE

Second hand equipment in good working order as used in construction of Lahontan Dam.

Steam locomotives, 14-ton, 36″ gage. Steam traction engine. Electric shovel. Electric dragline excavator. Electric motors. Hoisting engines. Derricks. Dump cars, 36″ gage, 4-yd. capacity. Flat cars. Steel rails, 30-lb. Belt conveyors and elevators. Gravel screening plant. Grab bucket. Tube mill 5′ x 22′. Lidgerwood cableway, 1600′ span, traveling type, 300 h.p. electric engine, latest improvements, complete with set of steel skips and buckets. **Send for descriptive list and investigate before buying new equipment.**

U. S. RECLAMATION SERVICE **FALLON NEVADA**

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Air Compressors
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Cars
Derricks
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Electric Locomotives
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Engines
Feed Water Heaters
Generators
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Pipe
Pumps
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Turn Tables
Valves and Fittings

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.

Plant and Equipment for Sale

Including locomotives, gondolas, derricks, concrete mixers, rock drills, buckets, pumps, engines, elevators and conveyors. *Ask for new list with revised prices.*

ALABAMA POWER COMPANY,
Birmingham, Ala.

RAILS

40 ton of 35 lb. with fish plates.—PIPE.

20,000 ft. 24" gauge 20 lb. portable track.—SCHMIDT.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1—5 ton Kelley tandem and 1—7 ton Chicago tandem, both rollers have been used but upon two jobs and are in most excellent condition.—Address the AMERICAN NATIONAL BANK, Findlay, Ohio.

1—10 ton macadam in A1 condition.—F. S. 228, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

"O" Thew, traction, Mass. boiler, high number.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—14B Bucyrus traction revolving ⅝ yd.—GIVIN.

⅝ yd. Thew, $2250; ⅝ yd. Bucyrus 14 B, $2500. Both traction and good.—GRIMSHAW.

Thew No. 2—Railroad trucks, unusual bargain.—KEW GARDENS CORPORATION, 56 Wall St., New York, N. Y.

TRACTION ENGINES

1 Buffalo-Pitts., 22 H.P., and 1 Huber, 16 H.P.—AMERICAN.

TRACTION HAULAGE OUTFIT

One 30-60 HP. Pioneer tractor and six 6-yd. steel dump wagons; in first-class condition. Will sacrifice for quick sale. Address 617 Chronicle Bldg., Houston, Texas.

TRAVELING CRANES

One—with clam shell bucket, new and cheap.—WHITNEY.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

WAGONS

4 Buffalo-Pitts., 10 cu.yds. cap. each.—AMERICAN.

Wanted

Tandem paving roller, at once. Price must be right. Send information to W. 229, Eng. News.

2500 tons or more 70 lb. relayers; describe fully; name best price and terms. W. 196, Eng. News.

Hydraulic Dredge and Other Machinery For Sale

One—20″ Hydraulic dredge, complete with Pontoons, Pipe Line, etc.
One—1¼ - yard Vulcan Steam Shovel.
One—No. 3½ Keystone Well Drilling Machine.

For Further Information
Address P. O. Box 27, Rochester, N. Y.

CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York.
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HENRY V. ST. GEORGE, Inc.
Engineering and Drafting Specialties **10-12-14 Grand St., N. Y.**

Contracts to Be Let

Bids received until May 17, 1915.

Contract 8—Nepaug Reservoir

Hartford, Conn.

Sealed proposals, addressed to the Board of Water Commissioners of the City of Hartford, for the construction of a new gravel surface road north of Nepaug Reservoir in the Town of New Hartford, Conn., will be received at the office of the Board, City Hall, Hartford, until 3:00 p.m., Monday, May 17, 1915.

Contract 8 comprises the construction of a gravel road about 1½ miles long through new country. The road will have a travel path 14 feet wide with 8 inches of gravel surfacing, together with the necessary culverts and guard fences.

Plans and specifications may be obtained at the office of the Chief Engineer, Pilgard Building, Hartford, Conn., on deposit of $5.00, which amount will be refunded if the plans and specifications are returned in good order before June 17, 1915. Specifications used in making a bid will be considered as returned.

A certified check or cashier's check for $2,000 must accompany each bid and the successful bidder will be required to furnish bonds in the sum of $20,000. The right is reserved to reject any and all bids.

It is expected to let contracts in the near future for the following work, which is in the immediate vicinity of this location and which may be looked over by prospective bidders at the same time that the road work on Contract 8 is examined:

Contract 9—East Dike. Contract probably will be advertised about June 1st and calls for the construction of an earth dam about 25 feet high and 600 feet long, containing about 28,000 cubic yards of earth embankment and 1,500 cubic yards of masonry core wall.

Contract 10—Richards Corner Dam. Contract probably will be advertised about June 15th and calls for the construction of an earth dam 70 feet high and 800 feet long, containing about 250,000 cubic yards of soil and gravel filling, 13,000 cubic yards of masonry core wall, 10,000 cubic yards of rock excavation and a concrete conduit and stream control for a drainage area of 62 square miles.

Later in the year a contract will be let for clearing the entire Nepaug Reservoir area of about 900 acres and grubbing about 125 acres of shore line.

BOARD OF WATER COMMISSIONERS,
WALTER S. GARDE, President.
FRED D. BERRY, Secretary.
CALEB MILLS SAVILLE, Chief Engineer.

⁂

Bids received until May 28, 1915.

Notice to Bridge Contractors

Canton, N. Y.

Sealed proposals, endorsed "Proposal for Bridge on Canton-Pierrepont Road," will be received by the Town Board of the Town of Canton, N. Y., at the Office of the Town Clerk in the Village of Canton, N. Y., until 2 P.M. on the 28th day of May, 1915.

The work consists of removing the superstructure of the present bridge over Granis Brook on said Road in such a manner that said bridge can be used again, and placed where directed by the Town Superintendent, and furnishing and erecting the superstructure of a new steel truss bridge of one span of 46 feet, with roadway of 18 feet in width, complete and ready for the concrete floor.

Each proposal must be accompanied by a certified check, or its equivalent, for ten per cent. of the amount of the proposal.

A bond for the whole amount, approved by the Supervisor, must be furnished by the successful bidder.

Specifications may be obtained from the Town Clerk or Supervisor.

The Town Board reserves the right to reject any or all proposals.

C. G. CHANEY, Supervisor.
H. M. BARBER, Town Clerk.
A. H. WILLIAMS, Town Supt.

Dated May 3rd, 1915.

Bids received until May 21, 1915.

Bridges

Rome, Ga.

Sealed proposals will be received by the Board of Commissioners of Roads & Revenue, Floyd County, Ga., until twelve o'clock noon of May 21st, 1915, for the construction of the following bridges, with the City of Rome, said County.

(a) Second Avenue Bridge—A reinforced concrete arch bridge, forty foot roadway and two eight foot sidewalks, total length of about three hundred and seventy-six (376) ft.

(b) Reinforced concrete arch bridge at Broad Street, forty foot roadway and two eight foot sidewalks, total length of about four hundred and seven (407) feet.

(c) Steel truss bridge on concrete substructure, at Fifth Avenue, with a thirty-six and one-half foot roadway and two eight foot sidewalks, total length three hundred and sixty-seven (367) feet. This bridge will have a movable channel span with a channel clearance of about one hundred feet.

Certified check for One Thousand Dollars must accompany each bid.

Instructions to bidders, plans, specifications, forms of contracts, proposal and bond may be seen in the offices of the Consulting Engineers, Greiner & Whitman, Fidelity Building, Baltimore, Md., W. C. Spiker, Hurt Building, Atlanta, Ga., and in the office of Kieffer Lindsey, County Engineer, at Rome, Ga.

Contractors can obtain complete sets of plans, specifications, etc., from W. C. Spiker, for the sum of $5.00 per set for the Fifth Avenue Bridge and $5.00 per set for the Second Avenue and Broad Street bridges combined, and the Board reserves the right to reject any or all proposals and to make the award for either bridge separately or all bridges together, according to the best interest of the County.

After bidding on plans as above stated bidders may also submit alternate designs and specifications with their bids thereon, such alternate designs to be approved by the County Consulting Engineers. This April 19th, 1915.

J. G. POLLOCK, Commissioner.
C. L. CONN, Commissioner.
W. N. HORTON, Commissioner.
P. C. GRIFFIN, Commissioner.
C. M. YOUNG, Commissioner.
J. S. DAVIS, Commissioner.

⁂

Bids received until May 28, 1915.

Notice to Bridge Contractors

Canton, N. Y.

Sealed proposals, endorsed "Proposal for Morley Bridge," will be received by the Town Board of the Town of Canton, N. Y., at the Office of the Town Clerk in the Village of Canton, N. Y., until 2 P.M. on the 28th day of May, 1915.

The work consists of removing the superstructure of the present bridge over the Grasse River at Morley, and piling it in neat piles where directed by the Town Superintendent, and furnishing and erecting the superstructure of a new steel truss bridge of two spans of 79′ 9″ each, with a roadway of 18 feet in width, and one sidewalk of 5 feet in width, with a concrete floor.

Each proposal must be accompanied by a certified check, or its equivalent, for ten per cent. of the amount of the proposal.

A bond, approved by the Supervisor, must be furnished by the successful bidder.

Plans are on file with the Town Clerk, and specifications may be obtained from him or from the Supervisor.

The Town Board reserves the right to reject any or all proposals.

C. G. CHANEY, Supervisor.
H. M. BARBER, Town Clerk.
A. H. WILLIAMS, Town Supt.

Dated May 3rd, 1915.

Bids received until June 1, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. on Tuesday, the 1st day of June, 1915, for the repair of highways in the following counties:

Albany (one contract—surface treatment); Chenango (two contracts—surface treatment); Clinton (one contract—surface treatment); Cortland (one contract—surface treatment); Delaware (one contract—surface treatment); Erie (one contract —surface treatment); Essex (two contracts—surface treatment); Fulton (one contract—surface treatment); Herkimer (one contract—surface treatment); Jefferson (one contract—surface treatment); Madison (one contract—surface treatment); Monroe (one contract—surface treatment); Montgomery (two contracts—surface treatment); Orange (one contract —surface treatment, one contract—resurfacing); Otsego (one contract—surface treatment); Rensselaer (two contracts—surface treatment); St. Lawrence (one contract—surface treatment, one contract—resurfacing); Saratoga (one contract —surface treatment); Schenectady (one contract—surface treatment); Schoharie (one contract—surface treatment); Steuben (one contract—resurfacing); Sullivan (one contract—surface treatment); Warren (one contract—resurfacing and surface treatment); Washington (one contract—surface treatment).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose divisions the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

⁂

Bids received until May 18, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. Tuesday, the 18th day of May, 1915, for the repair of highways in the following counties:

Allegany (one contract—surface treatment, one contract—resurfacing); Cayuga (one contract—resurfacing); Franklin (one contract—surface treatment, one contract—resurfacing); Fulton (one contract—surface treatment); Genesee (one contract—surface treatment, one contract—broken stone); Livingston (three contracts—surface treatment, one contract—broken stone); Monroe (two contracts—surface treatment, four contracts—broken stone); Hamilton (one contract—surface treatment); Ontario (one contract—surface treatment, one contract—resurfacing, one contract—broken stone); Madison (two contracts—surface treatment); Montgomery (one contract (surface treatment); Oneida (three contracts—surface treatment); Otsego (one contract—surface treatment); Herkimer (one contract—surface treatment); Orange (two contracts—resurfacing); Orleans (one contract—surface treatment, one contract—broken stone); Oswego (two contracts—surface treatment; Rensselaer (one contract—resurfacing); Seneca (one contract—surface treatment); Steuben (one contract—resurfacing); Tompkins (one contract—resurfacing); Washington (one contract—resurfacing); Wyoming (one contract—surface treatment, one contract—broken stone); Yates (one contract—surface treatment).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

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U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for construction of concrete masonry for fourth lock at Sault Ste. Marie, Mich., will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engrs.

Bids received until May 29, 1915.

Concrete-Steel Arch Bridge

Wallkill, N. Y.

Sealed proposals will be received at the office of the Town Clerk, Town of Shawangunk, Wallkill, Ulster County, New York, until Saturday, May 29th, 1915, at two o'clock P.M., for furnishing all labor and materials and constructing a concrete-steel arch bridge over the Wallkill River, in the Village of Wallkill, and will be publicly opened and read at that time.

Plans and specifications may be seen at the office of the Town Clerk, Town of Shawangunk, Wallkill, New York. Copies of the plans and specifications may be obtained from the Concrete-Steel Engineering Company, Park Row Building, New York City, or J. F. Loughran, County Superintendent of Highways, 74 John Street, Kingston, New York, upon making a deposit of TEN ($10.00) DOLLARS, which will be refunded upon the return of the plans and specifications by all bidders for the work, and to those others returning the plans and specifications before the date of letting, provided such plans and specifications are returned in good order.

Each proposal must be accompanied by a certified check on a National Bank for ten (10%) per cent. of the contract price, made payable to the order of the Town of Shawangunk, Ulster County, New York.

The right is reserved to accept or reject any or all bids.

J. GRANT UPWRIGHT,
Town Superintendent of Highways.

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Bids received until June 7, 1915.

Sewerage System and Sewage Disposal Works

Downingtown, Pa.

Sealed proposals will be received by the Borough Council of Downingtown, Pa., at the Council Chamber, up to 8 o'clock P.M. of the 7th day of June, 1915, for furnishing all the labor, materials and plant, and doing all the work necessary for constructing a sewage disposal works, and all or a portion of a sewerage system.

The work to be done includes seven miles of 8, 10, 12, 15 and 18" sewers, and a complete sewage disposal works.

A certified check for $2000 must accompany each bid. The Borough Council reserves the right to reject any or all bids, to waive any informality in the bids received, or to accept the bid or bids most favorable to the Borough of Downingtown.

Plans may be seen and specifications and forms of proposals obtained from Charles McFadden, Secretary of Council, or at the office of Herbert W. Hatton, Consulting Engineer, 708-9 Equitable Building, Wilmington, Del., after May 20. A full set of blue prints will be sent prepaid to a prospective bidder upon receipt of four dollars, which sum will be returned only to the successful bidder.

CHARLES McFADDEN, Secretary of Council.
HERBERT W. HATTON, Consulting Engineer.

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Bids received until May 18, 1915.

Demolition of Power House

Albany, N. Y.

Sealed proposals will be received by the Trustees of Public Buildings at the Executive Chamber, Capitol, Albany, N. Y., until 4 o'clock P.M. on Tuesday, May 18, 1915, at which time they will be opened and read publicly, for the demolition of the old Power House located at Lafayette, Elk and Hawk Streets, in the City of Albany, New York. These proposals shall be accompanied by certified check in the amount of bid and the contractor to whom the award is made will be required to furnish surety bond in the sum of $1250 to insure the completion of the work within thirty (30) days from date of award of contract. Failure to furnish bond within specified time will cancel the notice of award and cause the forfeiture of the certified check. The State reserves the right to reject any or all bids.

LEWIS F. PILCHER, State Architect,
Capitol, Albany, N. Y.

⁂

FORT HUACHUCA, Ariz., May 8, 1915.—Sealed proposals, in triplicate, will be received here until 1 P.M., June 9, 1915, and then opened, for furnishing all materials, machinery and labor required in constructing complete an electric light and refrigerating plant and installing interior and exterior wiring system. $10 deposit required for plans and specifications. For information address CONSTRG. QUARTERMASTER.

Bids received until May 25, 1915.

Sewerage System

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard time, of the 25th day of May, 1915, and then publicly opened and read, for the construction of a Sewerage System for certain portions of the Village of Rittman, Ohio.

The work to be done includes the construction of approximately 5.36 miles of vitrified pipe sewers, ranging in size from 6 to 15 inch, to be located on the several streets and thoroughfares and private right-of-ways in the Village.

Bids will be made upon the work as a whole.

Copies of the plans, proposal forms, specifications, and forms of bonds and contract can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Ten Dollars ($10.00) with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded on the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of proposal, or by a bond with surety or sureties satisfactory to the Village Council.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bid which it deems most favorable to the Village of Rittman, Ohio.

By Order of the Village Council.

VANCE HICKIN, Clerk.

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Bids received until May 21, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 2 o'clock p.m., Friday, the 21st day of May, 1915, for the improvement of Highways in the following counties:

Broome, 3 highways (1.03; 0.41; 0.28); Cattaraugus, 3 highways (5.62; 3.95; 6.88); Delaware, 3 highways (7.69; 11.40; 5.84); Genesee (approx. length 4.49); Greene (approx. length 4.43); Oneida (approx. length 5.73); Ontario, 4 highways (1.38; 1.23; 8.63; 1.53); St. Lawrence, 2 highways (5.07; 3.09); Schenectady (approx. length 3.34); Suffolk (approx. length 10.50); Washington, 2 highways (3.34; 5.96).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specification and contract agreement.

EDWIN DUFFEY, Commissioner.

I. J. MORRIS, Secretary.

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Bids received until May 31, 1915.

Auxiliary Pumping Unit

PETERBOROUGH UTILITIES COMMISSION,

Peterborough, Ontario.

Sealed Tenders, endorsed "Tender for Pumping Unit," addressed to S. R. Armstrong, Esq., Secretary, Peterborough Utilities Commission, Peterborough, Ont., Canada, will be received until noon of May 31st, 1915, for the construction and installation in place of a complete Pumping Unit.

Tenders must be accompanied by a marked cheque as required by Specification.

Specifications may be obtained from the Secretary; address as above.

WM. KENNEDY, JR., Engineer,
364 University St., Montreal.

Bids received until May 25, 1915.

Sewage Treatment Plant

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard time, of the 25th day of May, 1915, and then publicly opened and read, for the construction of a Sewage Treatment Plant for the Village of Rittman, Ohio.

The work to be done includes the construction of a pump station with electric driven centrifugal pumps, concrete sedimentation and dosing tanks, 1.25 acres of intermittent sand filters and an earth dike.

Bids will be made upon the work as a whole.

Copies of the plans, proposal forms, specifications, and forms of bonds and contracts can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Ten ($10.00) Dollars with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded on the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of proposal, or by a bond with surety or sureties satisfactory to the Village Council.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bid which it deems most favorable to the Village of Rittman, Ohio.

By Order of the Village Council.

VANCE HICKIN, Clerk.

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Bids received until June 1, 1915.

To Bridge Contractors

Lake Charles, La.

Sealed bids will be received until 11 o'clock a.m., Tuesday, June 1, 1915, at the office of the Highway Department, Calcasieu Parish, Lake Charles, La., for the construction of a reinforced concrete arch bridge with a Double Leaf Strauss Trunnion Bascule Span, over the Calcasieu River near Lake Charles.

Each bidder shall file with his bid a sworn statement setting forth the location and description of a similar structure, or structures which he has erected as proof of his ability and experience to undertake the present work.

Bidders shall file with their bids a surety company bond for an amount equal to the total bid, and this bond shall guarantee the execution and completion of the contract if awarded.

Bid, bond and sworn statement shall be enclosed in a sealed envelope bearing the bidder's name and marked: "Bid for Calcasieu River Bridge."

Plans and specifications are on file at the office of the Highway Department, and the office of this paper, and copies of same may be obtained upon payment of ten dollars ($10.00), same to be refunded upon the receipt of a bona fide bid and the return of the plans and specifications.

The Police Jury reserves the right to reject any or all bids.

C. E. HOUSE, Clerk to the Police Jury.

F. H. FRANKLAND, Bridge Engineer.

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Bids received until May 25, 1915.

Water Pipe

Philadelphia, Pa.

Bids will be opened on May 25, 1915, at noon, in Room 225, City Hall, Philadelphia, Pa., for furnishing and laying cast iron water pipe under Contract No. 260, containing approximately 17,000 feet of 48 inch pipe, 3300 feet of 30 inch, and 21,000 feet of 24 inch and under. Plans and specifications for which a deposit of $5.00 is required, and any further information, can be had at the Bureau of Water, Room 701, City Hall, Philadelphia.

C. E. DAVIS, Chief of Bureau.

Bids received until May 28, 1915.

Invitation to Paving Bidders

Wilmington, Del.

Sealed bids, in either one or two forms or both, will be received by the Board of Directors of the Street and Sewer Department of the City of Wilmington, Delaware, at the office of said Department, S. W. corner Sixth and King Streets, until 4 o'clock P.M. May 28, 1915, for the following work, on streets to be selected by the Street and Sewer Department from list published with the instructions and specifications for such work, which instructions and specifications, together with proposal blanks, may be obtained at the said office.

FORM NO. 1

Will be for the furnishing of labor and materials for all the following items, said items to be considered jointly:

Item 1. Setting new granite curb.
Item 2. Resetting granite curb.
Item 3. Constructing new concrete curb.
Item 4. Constructing concrete and brick gutters.
Item 5. Grading and excavating streets.
Item 6. Constructing concrete foundations.

Prices to be for performing all of the divisions of the work in such amount as is necessary to complete, on one or more streets to be selected by the Street and Sewer Department from said list:

1. Not less than 5,000 square yards of street surface
2. " 10,000 " " " "
3. " 20,000 " " " "
4. " 30,000 " " " "
5. " 40,000 " " " "
6. " 50,000 " " " "
7. " 75,000 " " " "
8. " 100,000 " " " "

Bidders may submit prices on any or all of the above quantities.

FORM NO. 2

Will be for the furnishing of labor and materials for all the following items, said items to be considered jointly:

Item 1. Setting new granite curb.
Item 2. Resetting granite curb.
Item 3. Constructing new concrete curb.
Item 4. Constructing concrete and brick gutters.
Item 5. Grading and excavating streets.
Item 6. Constructing concrete foundations.
Item 7. Constructing sheet asphalt pavement, or asphaltic concrete pavement, or Bitulithic pavement, or Warrenite pavement, or vitrified block pavement, or stone block pavement, or creosoted wood block pavement, or portland cement concrete pavement.

Prices to be for performing all of the divisions of the work in such amount as is necessary to complete with one kind of pavement, on one or more streets to be selected by the Street and Sewer Department from said list:

1. Not less than 5,000 square yards of street surface
2. " 10,000 " " " "
3. " 20,000 " " " "
4. " 30,000 " " " "
5. " 40,000 " " " "
6. " 50,000 " " " "
7. " 75,000 " " " "
8. " 100,000 " " " "

Bidders may submit prices on any or all of the above quantities.

The bids will be publicly opened at the aforesaid time. The right is reserved to reject any or all bids or to accept any portions of the bids.

BOARD OF DIRECTORS OF THE STREET AND
SEWER DEPARTMENT.

Attest:
L. V. CHRISTY, Secretary.

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Bids received until May 28, 1915.

Water-works Extension

CAST IRON PIPES, SPECIAL CASTINGS, VALVES, ETC.
PIPE LAYING

City of Frederick, Frederick County, Maryland.

Sealed proposals addressed "To the Board of Aldermen of the City of Frederick, Frederick County, Maryland," will be received until 2 o'clock P.M. on Friday, May 28th, 1915, at the City Hall, for furnishing and laying 12" cast iron pipes, special castings, valves, etc.

A certified check for $100.00 must accompany each proposal.

The Board of Aldermen reserves the right to reject any or all bids.

Previous to the above date, specifications and information can be obtained from Mr. J. H. Schmidt, Clerk to the Mayor and Aldermen, Mr. George A. Burck, Water Works Superintendent, at Frederick, and

WILLIAM H. BOARDMAN, Engineer,
426 Walnut Street, Philadelphia, Penna.

Bids received until May 19, 1915.

State Highway Construction

Augusta, Maine.

Sealed proposals addressed to the State Highway Commission, Augusta, Maine, for building 27.07 miles of state highway in the towns of Scarboro 5.47 miles; Thomaston 1.28 miles; Manchester 2.68 miles; Fairfield 2.29 miles; Searsport 2.53 miles; Prospect 0.32 mile; Edmunds 1.95 miles; Poland 3.65 miles; Oxford 3.77 miles; and in the cities of South Portland 2.22 miles and Bath 0.89 mile, will be received by the Commission at its office in the State House, Augusta, Maine, until eleven o'clock A.M. of May 19th, 1915, and at that time and place publicly opened and read. The work will consist of building gravel surfaced roads, except as follows: Scarboro, bituminous macadam; South Portland, concrete or bituminous macadam; Manchester, water-bound macadam, and Oxford, sand clay.

All proposals must be made upon the blank form provided by the Commission, for copy of which a deposit of one dollar will be required. Each proposal must be accompanied by a certified check for 10% of the amount bid, payable to the State Treasurer of Maine. The deposit and the certified check will be returned to the unsuccessful bidder unless forfeited under the conditions stipulated.

A surety company bond satisfactory to the Commission, of not less than one-fourth nor more than one-half of the amount of the contract will be required. Plans may be seen and forms of specifications and contract may be obtained at the office of the Commission, Augusta, Maine.

The right is reserved to reject any or all proposals.

LYMAN H. NELSON, Chairman,
PHILIP J. DEERING,
WILLIAM M. AYER,
State Highway Commission.

Dated at Augusta, Me., May 3rd, 1915.

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Bids received until May 24, 1915.

Sewage Disposal Works

Greenwich, Conn.

Sealed proposals will be received by the SEWER COMMISSIONERS of the Town of Greenwich, Connecticut, at their Office in the Town Building until eight o'clock P.M., on MONDAY, MAY 24th, 1915, for the construction of a SEWAGE DISPOSAL WORKS to be erected in East Port Chester, Connecticut, Sewer District No. 9.

Plans and Specifications can be seen or obtained at the Offices of the Sewer Commissioners, Town Building, Greenwich, Connecticut, Mr. Sheldon E. Minor, C. E., Trust Company Building, Greenwich Avenue, Greenwich, Connecticut, or Mr. Clyde Potts, Consulting Engineer, No. 30 Church Street, New York City, New York. The right is expressly reserved to reject any or all bids.

WILLIAM WILSON HEATON,
ISAAC M. HUBBARD,
ALBERT C. PECK,
Sewer Commissioners of the Town of Greenwich,
Connecticut.

Dated Greenwich, Connecticut, May 4th, 1915.

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Bids received until May 19, 1915.

Reinforced-Concrete Chimney

New Orleans, La.

Sealed Proposals will be received by the Board of Commissioners of the Port of New Orleans, at their Office, Suite 200 New Orleans Court Building, until May 19th, at eight o'clock P.M., and publicly opened, for the construction of a tapering, reinforced concrete chimney and foundation, for the Cotton Warehouses and Terminal, located on the east bank of the Mississippi River, between Valence and Soniat Streets.

Deposit required with the proposal $500.00. Bond required with Contract.

On and after May 10th, plans and specifications will be on file at the Office of Ford, Bacon & Davis, No. 921 Canal Street, New Orleans, La., by whom full sets will be furnished to prospective bidders on a deposit of $10.00, which will be returned to bidders who submit proposals, on return of set in good condition.

The right is reserved to reject any and all bids.

(Signed) ERNEST M. LOEB, President.

PROPOSALS FOR STORM-WARNING LANTERNS—U. S. Department of Agriculture, Washington, D. C., April 15, 1915. —Sealed proposals for furnishing storm-warning lanterns, as specified, f.o.b. factory, will be received here until noon, May 18, 1915, and then opened. Information furnished upon application to the Chief of Weather Bureau. Samples of the lanterns proposed to be furnished, to be submitted in connection with bid. Envelopes containing proposals should be indorsed "Proposals for Storm-warning Lanterns," and addressed to Chief, U. S. Weather Bureau, Department of Agriculture, Washington, D. C.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 20, 1915. —Sealed proposals for constructing about 2250 feet standard 3-row timber dike, and about 12,000 feet standard revetment on Missouri River, about 163 miles below Kansas City, and 9 miles below Glasgow, will be received at this office until 12 M., May 20, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, Wheeling, W. Va., May 3, 1915.—Sealed proposals for furnishing and delivering water turbines, air compressors, valve jacks, and gate winches, etc., for Dams Nos. 15 and 19, Ohio River, will be received at this office until 11 a.m. (Eastern time), June 2, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

U. S. ENGINEER OFFICE, Pittsburgh, Pa., April 21, 1915. —Sealed proposals for building two lockkeepers' houses at Dam No. 1, Monongahela River, will be received at this office until 12 M. (Eastern Standard Time), May 21, 1915, and then publicly opened. Information on application. HAROLD C. FISKE, Captain, Engrs.

PROPOSALS FOR BOOMS, MASTS, STIFF LEGS, HOISTING ENGINES, CONCRETE MIXERS AND CLAM SHELL BUCKETS.—Mississippi River Commission, 1st and 2d Districts, Room 20, Custom House, Memphis, Tenn., May 1, 1915.—Sealed proposals for furnishing and delivering booms, masts, stiff legs, hoisting engines, concrete mixers and clam shell buckets, will be received at this office until 11 a.m., May 21, 1915, and then publicly opened. Information furnished on application. E. M. MARKHAM, Maj., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 20, 1915. —Sealed proposals for constructing about 5900 feet standard 3-row timber dike on Missouri River, about 50 and 53 miles below Kansas City, and 1 mile below Napoleon and 1 mile above Camden, will be received at this office until 12 M., May 20, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., May 5, 1915.—Sealed proposals for excavation of Earth and Rock, U. S. Power Plant Tail Race, St. Marys River, Mich., will be received at this office until 12 M., June 15, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, Louisville, Ky., April 19, 1915.—Sealed proposals for a Steel Hull for Dredge "Nolin River" will be received here until 12 noon, central time, May 19, 1915, and then publicly opened. Information on application. J. C. OAKES, Major, Engrs.

U. S. ENGINEER OFFICE, 537 Congress Street, Portland, Me., May 10, 1915.—Sealed proposals for dredging in Portland Harbor, Maine, will be received at this office until 12 M., May 25, 1915, and then publicly opened. Information on application. F. A. POPE, Maj., Engrs.

SEALED PROPOSALS will be received at the office of the undersigned, Ellis Island, N. Y. H., until 2:30 p.m., May 18, 1915, and then opened, for construction of a sea wall at the U. S. Immigrant Station, Ellis Island. For specifications apply to Hon. FREDERIC C. HOWE, Commissioner of Immigration.

PROPOSALS FOR LEVEE WORK—Mississippi River Commission, 1st & 2d Districts, Room 20, Custom House, Memphis, Tenn., April 27, 1915.—Sealed proposals for constructing about 4,500,000 cubic yards of levee work in the Upper and Lower St. Francis, and White River Levee Districts, will be received at this office until 11 a.m., May 26, 1915, and then publicly opened. Information upon application. E. M. MARKHAM, Maj., Engrs.

Bids received until June 2, 1915.

Contract 9—Nepaug Reservoir East Dike

Hartford, Conn.

Sealed proposals, addressed to the Board of Water Commissioners of the City of Hartford, for the construction of the East Dike, Nepaug Reservoir, in the Town of Canton, Conn., will be received at the office of the Board, City Hall, Hartford until 3:00 p.m., Wednesday, June 2, 1915.

This contract comprises the construction of an earth dam 25 feet high and 600 feet long, with concrete core wall, and will require about 1600 cubic yards of trench excavation, 32,000 cubic yards of earth embankment and 1800 cubic yards of concrete masonry.

Plans and specifications may be obtained at the office of the Chief Engineer, Pilgard Building, Hartford, Conn., on deposit of $5.00, which amount will be refunded if the plans and specifications are returned in good order before July 2, 1915. Checks should be made to the order of the Board of Water Commissioners. Specifications used in making a bid will be considered as returned.

A certified check or cashier's check for $2500 must accompany each bid and the successful bidder will be required to furnish bonds in the sum of $25,000.

The right is reserved to reject any or all bids.

BOARD OF WATER COMMISSIONERS,
WALTER S. GARDE, President.
FRED D. BERRY, Secretary.

CALEB MILLS SAVILLE,
Chief Engineer.

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Bids received until June 1, 1915.

Filter Plant

Ridgway, Pa.

Sealed proposals will be received by the Secretary of the Town Council of The Borough of Ridgway until 12 o'clock noon, Tuesday, June 1st, 1915, for the construction of an addition to the present filter plant, including in general a sedimentation basin, a clear water basin with two superimposed filter units and a filter building.

Approximate quantities are as follows:

800 cu.yds. excavation
25 cu.yds. plain concrete
300 cu.yds. reinforced concrete.

Work to be completed August 1, 1915.

Certified check for $500, payable to "The Borough of Ridgway" required.

Bond required by successful bidder, $2500.

Plans and specifications are on file in the office of F. W. Ward, Borough Engineer, Room 10, Masonic Temple, Ridgway, Pa.

Bidder must visit site of proposed work before plans or specifications are furnished.

The Borough reserves the right to reject any or all bids.

G. F. GREINER,
Secretary Town Council.

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Bids received until June 9, 1915.

Municipal Court Building

Detroit, Mich.

Sealed proposals for the erection and completion of Municipal Court Building in the City of Detroit addressed to the Department of Public Works of the City of Detroit, and endorsed "Proposal for Municipal Court Building," will be received at the office of the Commissioner, City Hall, Detroit, until 10:00 A.M. on the ninth day of June, 1915.

Except where otherwise noted in specifications each proposal is to include the entire Building Work and Mechanical Equipment.

Each bid shall be accompanied by a certified check in the sum of Ten Thousand ($10,000.00) Dollars as surety for the acceptance of the contract, payable on its face to the Department of Public Works of the City of Detroit.

The accepted bidder will be required to furnish two bonds each in a sum equal to the full amount of contract.

Proposals shall be made in accordance with the plans and specifications prepared by Smith, Hinchman & Grylls, on file in their office, copies of which may be secured upon the payment of a deposit of $25.00.

The Commissioner reserves the right to reject any or all proposals, and to waive all informalities therein.

GEO. H. FENKELL, Commissioner.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for constructing and placing two timber cribs and replacing with concrete, timber superstructure, breakwater at Harbor Beach, Michigan, will be received at this office until 12 noon, May 12, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, Wilmington, N. C., Apr. 26, 1915.—Sealed proposals for furnishing and delivering about 22,000 barrels of Portland cement will be received at this office until 12 M., May 26, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 24, 1915.—Sealed proposals for constructing about 1000 feet standard 3-row timber dike, and about 5000 feet standard revetment on Missouri River, about 98 miles below Kansas City, and 6 miles below Waverly, will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, Louisville, Ky., May 4, 1915.—Sealed proposals for furnishing and erecting one Mitering Guard Gate of two leaves, for Lock No. 41, Ohio River, will be received here until 12 noon, Central time, June 4, 1915, and then publicly opened. Information on application. J. C. OAKES, Maj., Engrs.

SEALED PROPOSALS will be received at the office of the undersigned, Ellis Island, N. Y. H., until 2:30 p.m., May 18, 1915, and then opened, for all labor and materials required for dredging at U. S. Immigrant Station, Ellis Island, N. Y. H. For specifications apply to Hon. FREDERIC C. HOWE, Commissioner of Immigration.

U. S. ENGINEER OFFICE, First District, New York City Room 710 Army Building, 39 Whitehall Street, New York N. Y., April 28, 1915.—Sealed proposals for constructing an delivering combination drill scow and dredge "General Gillespie" will be received at this office until 12 M., May 28, 1915 and then publicly opened. Information on application. W. M BLACK, Col., Engrs.

U. S. ENGINEER OFFICE, Wilmington, N. C., Apr. 26, 1915.—Sealed proposals for furnishing and delivering about 19,700 tons of crushed stone will be received at this office until 1 P.M., May 26, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 24, 1915.—Sealed proposals for constructing about 5500 feet standard 3-row timber dike on Missouri River, about 92 and 98 miles below Kansas City, opposite and about 6 miles below Waverly, will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for furnishing and placing stone riprap along lake face of main breakwater, Harbor Beach, Michigan, will be received at this office until 12 noon, May 11, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, Savannah, Ga., April 26, 1915.—Sealed proposals for construction and delivery of two (2) steel lighters will be received at this office until 12 o'clock, Noon (Eastern Standard Time), May 26, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Colonel, Engineers.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

SCIENTIFIC MANAGEMENT; mechanical engineer with German education and training, broad experience in large German factories, two years in this country, is looking for a position where he can prove his ability to increase output. P. W. 259, Eng. News.

Civil Engineers

CIVIL ENGINEER; college graduate; Assoc. M. Am. Soc. C. E.; 10 years' experience, design and construction, docks, bridges, roads, canals, surveys. P. W. 152, Eng. News.

CIVIL ENGINEER and Superintendent, Associate Member American Society. Ten years' experience. Three years railway surveys and construction. Three years engineer sewer construction. Three years superintendent sewer and water works. Speaks Spanish. References. P. W. 181, Eng. News.

GRADUATE CIVIL ENGINEER, Assoc. M. Am. Soc. C. E., desires position as location or constructing engineer, superintendent, foreman; age 30; married, no children; eight years' experience; railroad location and construction, water-power and irrigation construction; have handled 500 men; initial salary small, if chance of advancement on ability is good; references furnished; complete experience or personal interview vicinity New York; location immaterial; available May 20. P. W. 218, Eng. News.

WATER-SUPPLY, water power, dams, sewers; responsible charge, construction and design; present engagement soon terminates; age 34; Assoc. M. Am. Soc. C. E. P. W. 224, Eng. News.

YOUNG GRADUATE CIVIL ENGINEER, one years' experience on reinforced-concrete construction desires work; good man for contractor. P. W. 230, Eng. News.

CIVIL ENGINEER, university graduate, 2 years' building experience, now at concrete design seeks location with contractor or engineer, New York or vicinity. P. W. 231, Eng. News.

GRADUATE CIVIL ENGINEER wants work of any kind in the engineering line; five years' experience, land surveys, canal, roads, sewers and street paving. P. W. 265, Eng. News.

CIVIL ENGINEER, Assoc. M. Am. Soc. C. E. desires position; 8 years' experience on the design of foundations and reinforced concrete bridges and buildings. Expert computer of arch stresses. P. W. 264, Eng. News.

GRADUATE CIVIL ENGINEER, ten years' experience, two years irrigation, eight years superintendent of construction, desires position with contractor, city engineer or engineering company. Salary moderate. Location immaterial but more familiar with labor in west and southwest. P. W. 254, Eng. News.

GRADUATE CIVIL ENGINEER with four years' of varied experience desires position with engineer or contractor. P. W. 258, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT; 12 years continuous charge of engineering and construction work, mostly railroad; reinforced concrete a specialty; designing, estimating, etc.; experience in municipal work; executive ability; legal training; business education; references; moderate salary; just finished some work in Canada and available at any time for any location. For list of special training and experience. P. W. 260, Eng. News, Chicago

CIVIL ENGINEER; 28, single, American, technical, railroad location, design and construction, hydro-electric, water works, subways, tunnels, reports and estimates; tropics and north, speak Spanish. P. W. 261, Eng. News.

COLLEGE AND TECHNICAL GRADUATE, employed with railroad; expert estimating, designing, checking steel masonry, reinforced concrete; excellent references; desires change. P. W. 197, Eng. News.

CIVIL ENGINEER, technical graduate, Member Am. Soc. C. E.; 16 years' experience in construction and design especially waterworks and highways; speaks and writes Spanish; free after June 1. P. W. 267, Eng. News.

YOUNG MAN, graduate civil engineer, wishes work in the engineering line; location immaterial; salary secondary matter. P. W. 273, Eng. News.

GRADUATE CIVIL ENGINEER, 20 years' experience in charge irrigation, drainage and hydraulic and railroad construction, also valuation engineer public utilities, now finishing important work, wishes employment. P. W. 272, Eng. News, Chicago.

CIVIL ENGINEER, graduate, 14 years' practical experience; water-works and municipal consulting engineering; design and construction, earth, masonry, concrete and steel; investigations, reports, appraisals, fire protection; evcellent references. P. W. 275, Eng. News.

Surveyors

YOUNG MAN with eight years' experience in surveying, topography and construction desires position with engineer or contractor; hustler. P. W. 274, Eng. News.

INSTRUMENTMAN with one year experience desires position; 3 years at technical school, and summer surveying camp. P. W. 251, Eng. News.

Draftsmen

GENERAL EXPERIENCE, including structural steel, concrete, heavy timber, machinery, etc., open for a position; location, New York. P. W. 243, Eng. News.

ENGINEER AND DRAFTSMAN, 33, ten years' experience field and office work, estimating, designing and installing, building bridges, reinforced concrete and steel and general construction. P. W. 226, Eng. News.

TOPOGRAPHIC AND RAILROAD DRAFTSMAN, 30, experienced technical graduate, neat, rapid letterer, Reinhardt's style; permanent, responsible position only. P. W. 221, Eng. News, Chicago.

BY ENGINEER with experience in the design and detailing of first-class structural work. P. W. 234, Eng. News.

ENGINEER AND DRAFTSMAN, technical graduate, seven years' experience, field and office, drainage and irrigation work; A-1 letterer, Reinhardt's style; samples. P. W. 216, Eng. News.

TRACER OF ARCHITECTURAL DRAWINGS; accurate and neat; best references and moderate salary. P. W. 248, Eng. News, Chicago.

DRAFTSMAN, 27; technical; 10 years' experience mechanical, electrical, structural; neat letterer; capable designer. P. W. 278, Eng. News.

DRAFTSMAN—Ornamental iron, 11 years' experience, go anywhere, moderate salary. Desires position. P. W. 252, Eng. News.

STRUCTURAL DRAFTSMAN; M. I. T. graduate; first-class detailer; 2½ years with leading New York firm. Box 85, Barnstable, Mass.

Superintendents, Etc.

CARPENTER FOREMAN; concrete forms or heavy timber work; references. P. W. 236, Eng. News.

SUPERINTENDENT OF PAVING; 22 years' experience; good organizer; temperate. P. W. 233, Eng. News.

YOUNG MAN, graduate engineer, wishes engineering employment; character of work and location immaterial. P. W. 158, Eng. News.

TECHNICAL GRADUATE, 29, six years' experience on reinforced concrete and factory construction desires position as architect or contractor's superintendent; at present employed. P. W. 198, Eng. News.

SUPERINTENDENT, 15 years' experience, reinforced-concrete construction, especially bridges, water filtration, sewage-disposal works, foundation work, desires change from present connections to more responsible position; excellent reasons for changing; references furnished. P. W. 222, Eng. News.

PLANTS ENGINEER; 14 years' factory experience; seven years in charge engineering, power and mechanical departments; thorough acquaintance with building construction; welfare, housing and safety movements; age 38; graduate Mass. Inst. of Technology. P. W. 268, Eng. News.

YOUNG MAN, technical college education, wishes position in the engineering line; salary secondary matter. P. W. 269, Eng. News.

ENGINEERING ASSISTANT experienced in cost accounting, statistical work, correspondence and office management, seeks position. P. W. 270, Eng. News.

YOUNG MAN (28), now employed as salesman, desires position in selling end of concern connected with the building trade; since graduation from college, has had five years' experience in new business department of large engineering and construction company; good references. P. W. 279, Eng. News.

MARRIED MAN, 28; eight years' experience railway location, construction and maintenance, needs employment. C. E. Newell, Griffin, Ga.

ENGINEER; ten years in South America; thorough acquaintance language, customs, costs. Best references. P. W. 157, Eng. News, Chicago.

BY AN ENGINEER, good draftsman, eight years' experience in railroad engineering, rodman to resident engineer. Past two years erection engineer and estimator industrial building construction. Age 28. Married. Residence, P. W. 255, Eng. News, Chicago.

REINFORCED CONCRETE DESIGNER and ESTIMATOR, formerly with large Chicago steel company; best references. Geo. Hutsler, 1301 Hartford St., Lafayette, Ind.

ESTIMATOR, building construction, reliable and quick in quantities, over 10 years' experience, good draftsman, can prepare details on wood and steel, etc., specialist in reinforced concrete, graduated civil engineer, 34, married, wants position; moderate salary. P. W. 253, Eng. News.

GRADUATE ENGINEER now employed wants to locate with private concern; willing to start from bottom, if chances are good; several years experience; road work, sewers, dam, grade crossings and subway work; expert computer (formerly computer U. S. Coast and Geodetic Survey); location immaterial. P. W. 244, Eng. News.

POSITION wanted with general contractor; capable office man, stenographer and outside. P. W. 277, Eng. News.

SUBMARINE DIVER, 12 years' experience in bridge work, coffer-dams and general under-water repairs seeks position with reliable contracting firm, permanent or temporary employment. P. W. 276, Eng. News.

GENERAL CONTRACTOR'S ENGINEER and estimator on all trades entering into every class of construction, mostly successful, desires permanent position. P. W. 280, Eng. News.

POSITIONS OPEN

STRUCTURAL DETAILERS wanted for structural shop in Havana, Cuba; must be fully experienced, rapid and accurate on mill-building work; state experience, references and salary at once; permanent position for right men. P. 240, Eng. News.

TRANSITMAN wanted to take charge of party on street railroad surveys in Brooklyn. Must be good draftsman. P. 256, Eng. News.

RODMAN wanted for street railroad surveys in Brooklyn. P. 257, Eng. News.

COMPETENT and experienced structural designer and estimator required for mill building work to take permanent position in Havana, Cuba, with manufacturing company. State experience, references and salary. P. 262, Eng. News.

SUPERINTENDENT OF ASPHALT PLANT; in New York City. Only those having had thorough experience in such a capacity need apply. Must be able to handle men, and understand thoroughly the machinery of an asphalt plant. Applicants should furnish a detailed statement or experience, giving age and references. P. 263, Eng. News.

HYDRAULIC DREDGE FOREMAN wanted; must have had long experience in this particular work. Applicants please state age and salary required and give details of experience. P. 217, Eng. News.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

ENGINEERS, ARCHITECTS AND DRAFTSMEN wanted. The Kansas City Engineering Agency, 323 Midland Building, Kansas City, Mo.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

LABORERS—Immigrants of any nationalities supplied at short notice at any part of the United States; camps and commissary runner; promptness and systems are our success. People's Labor Agency, 88 Baxter St., New York.

WANTED

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

WANTED TO REPRESENT MANUFACTURER in New York territory, by man well acquainted with the pump and power plant field; several years successfully representing a prominent firm. Address A, Room 322-E, 30 Church St., New York City.

WANTED ENGINEERING REPRESENTATIVES for Southern and Central States to represent the Thomas method of reinforced-concrete bridge construction. William M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

MECHANICAL SALESMAN now covering New York, New Jersey, Pennsylvania, wants negotiations; exclusive or side. W. 271, Eng. News.

MECHANICAL ENGINEER opening office in Dayton, Ohio, desires to represent manufacturers in this territory. P. O. Box 297, Springfield, Ohio.

BUSINESS OPPORTUNITIES

CONSTRUCTION COMPANY (specializing concrete work), newly incorporated, offers good opportunity to man who can invest at least three thousand dollars ($3000). No triflers. Address Concrete, Room 416, 145 Nassau St., N. Y. C.

CORRESPONDENCE COURSES

of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

FOR ENGINEERS

The personal attention of the engineer who prepared these courses is given to all the work submitted by each subscriber and therefore the membership is limited.

Two separate courses are offered, under the following designations,—

STRUCTURAL STEEL DESIGNING
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These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter taken from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

and save years spent in mis-directed efforts which are a necessary result of trying to acquire experience without the direct aid and assistance of an engineer properly experienced in such work.

Address M. 180, Engineering News

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Second Hand Equipment

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

Equipment Wanted items appear at the end of this list.

N

ADVERTISERS' NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal & Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—Ingersoll-Rand H-3, 1000 Cu. Ft. Compound Steam Compound.—SAMPSON.

1—WB-2 Sullivan 909 Cu. Ft. Tandem Steam Driven Compound.—SAMPSON.

1—Rand Class "C" 527 Cu. Ft. and 2—Rand Class "C" 98 cu. ft. straight Line steam Driven.—SAMPSON.

1—Imperial XB-2, 1312 Cu. Ft. and 1—Imperial XB-2, 1190 Cu. Ft. Compound Belt Driven.—SAMPSON.

1—Ingersoll-Sergeant Class "E-1" 236 Cu. Ft. Belt Driven. —SAMPSON.

1—Blake 380 Cu. Ft. Duplex Steam Comp.; 1—Ing.-Serg. Class "F" 233 Cu. Ft. Straight Line Steam Driven.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x20, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

2 Norwalk 700 cu.ft. and 1200 cu.ft.; excellent condition. Reason for selling, mine worked out. No further use for same.—HANDY BROS. MINING CO., Bay City, Mich.

ASPHALT

About 33 tons of Limmer Mastic and 1 ton Neuchatel Asphalt, cheap.—UNION PAVING CO., 30th and Locust Sts., Philadelphia, Pa.

BELT CONVEYORS

1—14" and 1—16" 50' centers.—GIVIN.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

96—42 cu.ft. Stuebner tip-over buckets.—SCHMIDT.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed.—GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

CARS

[36" Gauge]

50—4 yd. 1-way So. Baltimore, $50 each. 8—K. & J. 3-yd. 2-way, overhauled, $70 each.—GRIMSHAW.

[24" Gauge]

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

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Hydraulic and dipper. Sale or charter.—GIVIN.

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For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

100 HP. Elyria tandem gas engine with air tank and engine; all in good shape; will sell cheap.—THE JACOBS LUMBER CO., Youngstown, Ohio.

GENERATORS

Western Electric 100 K.W. dir, con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

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Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$125 G. & B. 18" Precise Y level, new, $85; $240 H. & Brightly Engrs. transit, arc, good, $137. Guaranteed. 99 others. Rentals, repairs, supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

40-ton Climax geared, rebuilt; like new.—DALLETT.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

20 ton, 11x16" Davenport, built 1907, $1175.—GRIMSHAW.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

1—45 ft. 4-wheel Industrial.—WHITNEY.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

Smith ½ yd. Novo engine. Slightly used.—DALLETT.

1—No. 66—½ Yard "Ransome" with engine and pivot charging hopper, on wheels.—L. F. SEYFERT'S SONS, Inc., 437 N. Third St., Phila., Pa.

Lakewood ½ yd. and Austin Cube ½ yd., both with steam engine, boiler and side loader; Ransome, either steam or gasoline, ¾ yd.—WATERLOO CEMENT MACHINERY CORP'N, South Ferry Bldg., New York, N. Y.

PILING, SHEET STEEL

5000 pcs. Lackawanna and Carnegie. What are your needs?—GRIMSHAW.

165 pcs. Lackawanna 14" arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

300,000 rethreaded wrought, sizes ¾" to 24".—MARINE.

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1 Cameron 3¼x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

RAILS

40 ton of 35 lb. with fish plates.—PIPE.

20,000 ft. 24" gauge 20 lb. portable track.—SCHMIDT.

About 90 tons of 70-pound steel rail, in good condition, suitable for relaying; also angle irons and one switch for same.—CARL SCHULER, Millersberg, Ohio.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1—5 ton Kelley tandem and 1—7 ton Chicago tandem, both rollers have been used but upon two jobs and are in most excellent condition.—Address the AMERICAN NATIONAL BANK, Findlay, Ohio.

1—10 ton macadam in A1 condition.—F. S. 228, Eng. News.

1—8 ton Austin gasoline, perfect condition, rare bargain.—B. G. COON CONSTRUCTION CO., 274 Union St., Luzerne, Pa.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

"O" Thew, traction, Mass. boiler, high number.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—14B Bucyrus traction revolving ⅝ yd.—GIVIN.

⅝ yd. Thew, $2250; ⅝ yd. Bucyrus 14 B, $2500. Both traction and good.—GRIMSHAW.

TANKS

One 16 ft. high by 24 ft. dia. cypress tank, 50,000 gal. capacity. Erected 1912, dismantled 1914, bands and staves in good condition. Tank practically new and dismantled for erection of larger steel tank. Address M'KEAN MAFFITT, Supt. Water Works, Florence, S. C.

TRAVELING CRANES

One—with clam shell bucket, new and cheap.—WHITNEY.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

Buckeye cuts ditch 22" wide, 6 ft. deep. Steam driven, double engine. Must sell immediately. $500 cash as stands, $650 cash put in good operating condition and loaded on car. Weight 16 tons. Just right for water works ditches.—T. L. FOUNTAIN, College Station, Texas.

Wanted

To purchase from 50 to 100 contractor's steel skips or scale boxes, from 3 to 5 yds. capacity. State price and location. W. 266, Eng. News.

Engineer's outfit including transit, level and continue blueprint machine. Give full description and lowest cash price.—R. S. BROWN, C. E., 138 Charlotte St., Asheville, N. C.

Tandem paving roller, at once. Price must be right. Send information to W. 229, Eng. News.

To Paving Contractors

You can have your Brick, Wood Block, Granite Block, Belgian Block and Asphalt Block paving done by a well organized paving crew which you can depend upon to do your work right. Especially your top work which is most difficult.

If you wish to sublet the above end of the work, will be glad to quote you.

J. G. Piscitelli, Paving Contractor

750 So. 8th Street, Phila., Pa.

Best of References ***Will furnish Bond***

COOPER UNION, New York City

The Free Day School of Technical Science offers four year courses in Civil, Mechanical and Electrical Engineering. Entrance examinations in Algebra and Geometry.

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to help you make bigger profits out of that railroad, levee, dam or road-building job?
If your haulage charges are high

Western Dump Cars

will help you cut them down.

Standard sizes up to 30-yd. capacity carried in stock—special cars to handle any requirements built to order on short notice—*and built right.*

Put your needs up to our Engineering Staff—they will advise you free. Write for new Catalog.

Western Wheeled Scraper Co.
Earth and Stone Handling Machinery
Aurora, Ill.

TRUS-CON INSERTS FOR CONCRETE

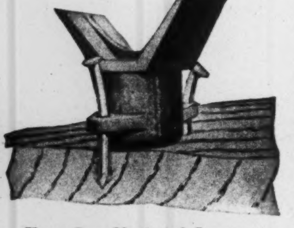
Are installed with the construction, permitting attachment of Shaft Hangers, Fixtures, etc., and eliminating the expense of drilling. Furnished in all types to meet all conditions.

Trus-Con Pressed Steel Slotted Inserts

Permits wide adjustability of location. Furnished with special washers in lengths of 18″, 24″, 36″, 48″ and 60″.

Kahn Adjustable Inserts

Made of malleable iron allows some adjustability. Furnished for ½″, ⅝″ and ¾″ bolts.



Trus-Con National Inserts

Made of highest grade grey iron. Bolt screws into inserts, which are tapped for ½″, ⅝″ and ¾″ bolts.

Interesting Pamphlet covering use of all types of inserts sent FREE on request.

TRUSSED CONCRETE STEEL COMPANY
Building Specialties Department
312 Trussed Concrete Building, DETROIT, MICH.
Reinforcing, Hy-Rib and Lath, Steel Sash, etc.
Representatives in Principal Cities

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WATER FILTERS for Municipal and Industrial Plants. Gravity and Pressure Types.

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Phone, Hemlock 305

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Specialist in Hoisting Equipment

Automatic Concrete Mixers
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Making Records on Large and Small Jobs

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- Air Compressors
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CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York.
Cable Address, Pawnee Havana.

Western Union & Lieber Codes Used.
Havana Office, Zulueta 36 D.

THE SNARE AND TRIEST COMPANY
Woolworth Building, 233 Broadway New York

Plant and Equipment for Sale

Including locomotives, gondolas, derricks, concrete mixers, rock drills, buckets, pumps, engines, elevators and conveyors. *Ask for new list with revised prices.*

ALABAMA POWER COMPANY,
Birmingham, Ala.

Hydraulic Dredge and Other Machinery For Sale

One—20″ Hydraulic dredge, complete with Pontoons, Pipe Line, etc.
One—1¼ - yard Vulcan Steam Shovel.
One—No. 3½ Keystone Well Drilling Machine.

For Further Information
Address P. O. Box 27, Rochester, N. Y.

Contracts to Be Let

Bids received until June 1, 1915.

Repairing Fassett St. Bridge

Toledo, Ohio.

Sealed Proposals will be received by the Director of Public Service at Room 223 The Valentine Bldg., until Twelve o'clock noon, Standard Time, Tuesday, June 1, 1915, for furnishing the necessary labor and material for the repairing, strengthening and repaving of the Fassett Street Bridge in the City of Toledo, Ohio, in accordance with plans on file in the office of the Chief Engineer of the Department of Public Service.

Each bid must contain the full name of every person or company interested in the same and must be accompanied by a surety company bond in a sum equal to 25 per cent. of the approximate estimated cost of the work or a certified check on some solvent bank, to the satisfaction of the Director of Public Service, as a guarantee that if the bid is accepted a contract will be entered into and its performance properly secured. Should any bid be rejected, such checks will be forthwith returned to the bidder, and should any bid be accepted, such check will be returned upon the proper execution and securing of the contract. The Director of Public Service reserves the right to reject any and all bids. All bids must be written in ink, and the total price for each item shall be written out in words. All labor and material necessary for the improvement aforesaid shall be bid on separately, with the price thereof, and total written in as aforesaid. Bidders will be required to indorse their names on the outside of the envelope containing their proposals and what the bid is for, the same to be filed with the Secretary to the Director of Public Service. Bidders are required to use the printed forms and envelopes which can be obtained at the office of the Chief Engineer of the Department of Public Service. Plans and specifications can be seen at the office of the Director of Public Service or at the office of the said Chief Engineer. By order of

A. W. BOARDMAN, Director of Public Service.

C. BURTON NICKELS, Secretary.

⁂

Bids received until May 25, 1915.

Sewerage System

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard time, of the 25th day of May, 1915, and then publicly opened and read, for the construction of a Sewerage System for certain portions of the Village of Rittman, Ohio.

The work to be done includes the construction of approximately 5.36 miles of vitrified pipe sewers, ranging in size from 6 to 15 inch, to be located on the several streets and thoroughfares and private right-of-ways in the Village.

Bids will be made upon the work as a whole.

Copies of the plans, proposal forms, specifications, and forms of bonds and contract can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Ten Dollars ($10.00) with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded on the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of proposal, or by a bond with surety or sureties satisfactory to the Village Council.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bid which it deems most favorable to the Village of Rittman, Ohio.

By Order of the Village Council.

VANCE HICKIN, Clerk.

Bids received until June 1, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. on Tuesday, the 1st day of June, 1915, for the repair of highways in the following counties:

Albany (one contract—surface treatment); Chenango (two contracts—surface treatment); Clinton (one contract—surface treatment); Cortland (one contract—surface treatment); Delaware (one contract—surface treatment); Erie (one contract—surface treatment); Essex (two contracts—surface treatment); Fulton (one contract—surface treatment); Herkimer (one contract—surface treatment); Jefferson (one contract—surface treatment); Madison (one contract—surface treatment); Monroe (one contract—surface treatment); Montgomery (two contracts—surface treatment); Orange (one contract—surface treatment, one contract—resurfacing); Otsego (one contract—surface treatment); Rensselaer (two contracts—surface treatment); St. Lawrence (one contract—surface treatment, one contract—resurfacing); Saratoga (one contract—surface treatment); Schenectady (one contract—surface treatment); Schoharie (one contract—surface treatment); Steuben (one contract—resurfacing); Sullivan (one contract—surface treatment); Warren (one contract—resurfacing and surface treatment); Washington (one contract—surface treatment).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose divisions the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.

I. J. MORRIS, Secretary.

⁂

Bids received until May 25, 1915.

Sewage Treatment Plant

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard time, of the 25th day of May, 1915, and then publicly opened and read, for the construction of a Sewage Treatment Plant for the Village of Rittman, Ohio.

The work to be done includes the construction of a pump station with electric driven centrifugal pumps, concrete sedimentation and dosing tanks, 1.25 acres of intermittent sand filters and an earth dike.

Bids will be made upon the work as a whole.

Copies of the plans, proposal forms, specifications, and forms of bonds and contracts can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Ten ($10.00) Dollars with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded on the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of proposal, or by a bond with surety or sureties satisfactory to the Village Council.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bid which it deems most favorable to the Village of Rittman, Ohio.

By Order of the Village Council.

VANCE HICKIN, Clerk.

Bids received until May 28, 1915.

Invitation to Paving Bidders

Wilmington, Del.

Sealed bids, in either one or two forms or both, will be received by the Board of Directors of the Street and Sewer Department of the City of Wilmington, Delaware, at the office of said Department, S. W. corner Sixth and King Streets, until 4 o'clock P.M. May 28, 1915, for the following work, on streets to be selected by the Street and Sewer Department from list published with the instructions and specifications for such work, which instructions and specifications, together with proposal blanks, may be obtained at the said office.

FORM NO. 1

Will be for the furnishing of labor and materials for all the following items, said items to be considered jointly:

Item 1. Setting new granite curb.
Item 2. Resetting granite curb.
Item 3. Constructing new concrete curb.
Item 4. Constructing concrete and brick gutters.
Item 5. Grading and excavating streets.
Item 6. Constructing concrete foundations.

Prices to be for performing all of the divisions of the work in such amount as is necessary to complete, on one or more streets to be selected by the Street and Sewer Department from said list:

1. Not less than 5,000 square yards of street surface
2. " 10,000 " " " "
3. " 20,000 " " " "
4. " 30,000 " " " "
5. " 40,000 " " " "
6. " 50,000 " " " "
7. " 75,000 " " " "
8. " 100,000 " " " "

Bidders may submit prices on any or all of the above quantities.

FORM NO. 2

Will be for the furnishing of labor and materials for all the following items, said items to be considered jointly:

Item 1. Setting new granite curb.
Item 2. Resetting granite curb.
Item 3. Constructing new concrete curb.
Item 4. Constructing concrete and brick gutters.
Item 5. Grading and excavating streets.
Item 6. Constructing concrete foundations.
Item 7. Constructing sheet asphalt pavement, or asphaltic concrete pavement, or Bitulithic pavement, or Warrenite pavement, or vitrified block pavement, or stone block pavement, or creosoted wood block pavement, or portland cement concrete pavement.

Prices to be for performing all of the divisions of the work in such amount as is necessary to complete with one kind of pavement, on one or more streets to be selected by the Street and Sewer Department from said list:

1. Not less than 5,000 square yards of street surface
2. " 10,000 " " " "
3. " 20,000 " " " "
4. " 30,000 " " " "
5. 40,000 " " " "
6. " 50,000 " " " "
7. " 75,000 " " " "
8. " 100,000 " " " "

Bidders may submit prices on any or all of the above quantities.

The bids will be publicly opened at the aforesaid time. The right is reserved to reject any or all bids or to accept any portions of the bids.

BOARD OF DIRECTORS OF THE STREET AND SEWER DEPARTMENT.

Attest:
L. V. CHRISTY, Secretary.

⁂

Bids received until May 25, 1915.

Supplies

Toronto, Ontario.

Tenders will be received through registered post only up to noon on Tuesday, May 25th, 1915, for the supply of—

No. 53. Cedar Ties for Lansdowne Avenue Extension, Toronto Civic Railway.
54. 5-Million Gallon Pump, driven by 3-phase Induction Motor, for the Riverdale Pumping Station.

Tenders must be addressed to the Chairman, Board of Control, City Hall, Toronto, and be plainly marked on the outside of envelope as to contents.

Specifications and forms of tender may be obtained at the Works Department, City Hall.

Tenderers must comply strictly with conditions of City By-law as to deposits and sureties as set out in specifications and forms of tender. The lowest or any tender not necessarily accepted.

T. L. CHURCH (Mayor),
Chairman, Board of Control.

Toronto, May 11th, 1915.

Bids received until May 28, 1915.

Notice to Bridge Contractors

Canton, N. Y.

Sealed proposals, endorsed "Proposal for Bridge on Canton-Pierrepont Road," will be received by the Town Board of the Town of Canton, N. Y., at the Office of the Town Clerk in the Village of Canton, N. Y., until 2 P.M. on the 28th day of May, 1915.

The work consists of removing the superstructure of the present bridge over Granis Brook on said Road in such a manner that said bridge can be used again, and placed where directed by the Town Superintendent, and furnishing and erecting the superstructure of a new steel truss bridge of one span of 46 feet, with roadway of 18 feet in width, complete and ready for the concrete floor.

Each proposal must be accompanied by a certified check, or its equivalent, for ten per cent. of the amount of the proposal.

A bond for the whole amount, approved by the Supervisor, must be furnished by the successful bidder.

Specifications may be obtained from the Town Clerk or Supervisor.

The Town Board reserves the right to reject any or all proposals.

C. G. CHANEY, Supervisor.
H. M. BARBER, Town Clerk.
A. H. WILLIAMS, Town Supt.

Dated May 3rd, 1915.

⁂

Bids received until May 28, 1915.

Notice to Bridge Contractors

Canton, N. Y.

Sealed proposals, endorsed "Proposal for Morley Bridge," will be received by the Town Board of the Town of Canton, N. Y., at the Office of the Town Clerk in the Village of Canton, N. Y., until 2 P.M. on the 28th day of May, 1915.

The work consists of removing the superstructure of the present bridge over the Grasse River at Morley, and piling it in neat piles where directed by the Town Superintendent, and furnishing and erecting the superstructure of a new steel truss bridge of two spans of 79′ 9″ each, with a roadway of 18 feet in width, and one sidewalk of 5 feet in width, with a concrete floor.

Each proposal must be accompanied by a certified check, or its equivalent, for ten per cent. of the amount of the proposal.

A bond, approved by the Supervisor, must be furnished by the successful bidder.

Plans are on file with the Town Clerk, and specifications may be obtained from him or from the Supervisor.

The Town Board reserves the right to reject any or all proposals.

C. G. CHANEY, Supervisor.
H. M. BARBER, Town Clerk.
A. H. WILLIAMS, Town Supt.

Dated May 3rd, 1915.

⁂

Bids received until May 25, 1915.

Electric Generating Sets

Buffalo, N. Y.

Sealed proposals for Gasoline Engine Driven Electric Generating Sets for Troop I Armory, Buffalo, N. Y., will be received by the State Board of Armory Commissioners, c/o State Architect, Capitol, Albany, N. Y., until four o'clock P.M. on Tuesday, May 25, 1915. Proposals shall be enclosed in an envelope furnished by the State Architect sealed and addressed and shall be accompanied by a certified check in the sum of $150.00. The contractor to whom the award is made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specification No. 2256. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Fourth Brigade Headquarters, 451 Main Street, Buffalo, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y. upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

STATE ARMORY COMMISSION,
FRANKLIN W. WARD, Secretary,
Capitol, Albany, N. Y.

Bids received until June 9, 1915.

Bridge Substructure

New Gretna, N. J.

Sealed proposals will be received for repairs to the substructure of the Mullica River Bridge at Chestnut Neck, near New Gretna, N. J., according to plans and specifications on file with the Engineers for Atlantic and Burlington Counties. The bids will be received by the Boards of Chosen Freeholders of the Counties of Atlantic and Burlington at the G. A. R. Hall, New York Ave., Atlantic City, New Jersey, at twelve o'clock noon on Wednesday, June 9th, 1915, and opened immediately thereafter.

Plans and specifications can be obtained from A. H. Nelson, Guarantee Trust Building, Atlantic City, N. J., and James Logan, Mount Holly, N. J., by depositing $5.00. This sum will be refunded if plans and specifications are returned in good condition by noon, June 10th, 1915.

The right is reserved to reject any or all bids.

A. H. NELSON,
Atlantic County Engineer.
JOHN K. JOHNSON,
Chairman Atlantic County Bridge Committee.
JAMES LOGAN,
Burlington County Engineer.
JOHN R. LOVELAND,
Chairman Burlington County Bridge Committee.

⁂

Bids received until June 1, 1915.

To Bridge Contractors

Lake Charles, La.

Sealed bids will be received until 11 o'clock a.m., Tuesday, June 1, 1915, at the office of the Highway Department, Calcasieu Parish, Lake Charles, La., for the construction of a reinforced concrete arch bridge with a Double Leaf Strauss Trunnion Bascule Span, over the Calcasieu River near Lake Charles.

Each bidder shall file with his bid a sworn statement setting forth the location and description of a similar structure, or structures which he has erected as proof of his ability and experience to undertake the present work.

Bidders shall file with their bids a surety company bond for an amount equal to the total bid, and this bond shall guarantee the execution and completion of the contract if awarded.

Bid, bond and sworn statement shall be enclosed in a sealed envelope bearing the bidder's name and marked: "Bid for Calcasieu River Bridge."

Plans and specifications are on file at the office of the Highway Department, and the office of this paper, and copies of same may be obtained upon payment of ten dollars ($10.00), same to be refunded upon the receipt of a bona fide bid and the return of the plans and specifications.

The Police Jury reserves the right to reject any or all bids.

C. E. HOUSE, Clerk to the Police Jury.
F. H. FRANKLAND, Bridge Engineer.

⁂

Bids received until June 7, 1915.

Sewerage System and Sewage Disposal Works

Downingtown, Pa.

Sealed proposals will be received by the Borough Council of Downingtown, Pa., at the Council Chamber, up to 8 o'clock P.M. of the 7th day of June, 1915, for furnishing all the labor, materials and plant, and doing all the work necessary for constructing a sewage disposal works, and all or a portion of a sewerage system.

The work to be done includes seven miles of 8, 10, 12, 15 and 18" sewers, and a complete sewage disposal works.

A certified check for $2000 must accompany each bid. The Borough Council reserves the right to reject any or all bids, to waive any informality in the bids received, or to accept the bid or bids most favorable to the Borough of Downingtown.

Plans may be seen and specifications and forms of proposals obtained from Charles McFadden, Secretary of Council, or at the office of Herbert W. Hatton, Consulting Engineer, 708-9 Equitable Building, Wilmington, Del., after May 20. A full set of blue prints will be sent prepaid to a prospective bidder upon receipt of four dollars, which sum will be returned only to the successful bidder.

CHARLES McFADDEN, Secretary of Council.
HERBERT W. HATTON, Consulting Engineer.

Bids received until June 9, 1915.

Mullica River Bridge

New Gretna, N. J.

Sealed proposals will be received for building a bridge, 742 feet long, composed of creosoted pile trestle approaches, steel trusses and bascule draw span with wood block floor and concrete substructure, over the Mullica River at Chestnut Neck, near New Gretna, N. J., according to plans and specifications on file with the Engineers for Atlantic and Burlington Counties. The bids will be received by the Boards of Chosen Freeholders of the Counties of Atlantic and Burlington at the G. A. R. Hall, New York Ave., Atlantic City, New Jersey, at 12 o'clock noon on Wednesday, June 9th, 1915, and opened immediately thereafter.

Plans and specifications can be obtained from A. H. Nelson, Guarantee Trust Building, Atlantic City, N. J., and James Logan, Mount Holly, N. J., by depositing $5.00. This sum will be refunded if plans and specifications are returned in good condition by 12 o'clock noon, June 10th, 1915.

The right is reserved to reject any or all bids.

A. H. NELSON,
Atlantic County Engineer.
JOHN K. JOHNSON,
Chairman Atlantic County Bridge Committee.
JAMES LOGAN,
Burlington County Engineer.
JOHN R. LOVELAND,
Chairman Burlington County Bridge Committee.

⁂

Bids received until June 2, 1915.

Contract 9—Nepaug Reservoir East Dike

Hartford, Conn.

Sealed proposals, addressed to the Board of Water Commissioners of the City of Hartford, for the construction of the East Dike, Nepaug Reservoir, in the Town of Canton, Conn., will be received at the office of the Board, City Hall, Hartford, until 3:00 p.m., Wednesday, June 2, 1915.

This contract comprises the construction of an earth dam 25 feet high and 600 feet long, with concrete core wall, and will require about 1600 cubic yards of trench excavation, 32,000 cubic yards of earth embankment and 1800 cubic yards of concrete masonry.

Plans and specifications may be obtained at the office of the Chief Engineer, Pilgard Building, Hartford, Conn., on deposit of $5.00, which amount will be refunded if the plans and specifications are returned in good order before July 2, 1915. Checks should be made to the order of the Board of Water Commissioners. Specifications used in making a bid will be considered as returned.

A certified check or cashier's check for $2500 must accompany each bid and the successful bidder will be required to furnish bonds in the sum of $25,000.

The right is reserved to reject any or all bids.

BOARD OF WATER COMMISSIONERS,
WALTER S. GARDE, President.
FRED D. BERRY, Secretary.
CALEB MILLS SAVILLE,
Chief Engineer.

⁂

Bids received until June 1, 1915.

Filter Plant

Ridgway, Pa.

Sealed proposals will be received by the Secretary of the Town Council of The Borough of Ridgway until 12 o'clock noon, Tuesday, June 1st, 1915, for the construction of an addition to the present filter plant, including in general a sedimentation basin, a clear water basin with two superimposed filter units and a filter building.

Approximate quantities are as follows:

800 cu.yds. excavation
25 cu.yds. plain concrete
300 cu.yds. reinforced concrete.

Work to be completed August 1, 1915.

Certified check for $500, payable to "The Borough of Ridgway" required.

Bond required by successful bidder, $2500.

Plans and specifications are on file in the office of F. W. Ward, Borough Engineer, Room 10, Masonic Temple, Ridgway, Pa.

Bidder must visit site of proposed work before plans or specifications are furnished.

The Borough reserves the right to reject any or all bids.

G. F. GREINER,
Secretary Town Council.

Bids received until June 8, 1915.

Sewage Disposal Plant and Appurtenances

Beaver Falls, Pa.

Sealed bids will be received by the Beaver Falls City Council for the construction of a sewage disposal plant, between the hours of 7:30 P.M. and 8:30 P.M. standard eastern time, June 8, 1915, and the bids will immediately thereafter be publicly opened and read.

The work consists of:

Part 1. Four Imhoff Tanks and Pump House.
Part 2. One Luiquid Chlorine Sterilizing Outfit.
Part 3. One Oil Engine, belt driven Centrifugal Pump.
Part 4. Sludge Drying Beds.
Part 5. Necessary Piping.

Plans and specifications can be secured from the engineer, Leo Hudson, 1210 House Building, Pittsburgh, Pa., upon a deposit of five ($5.00) dollars, said deposit being refunded to the bidder upon the return of said plans and specifications by June 15, 1915, in good condition.

All intending bidders will be required to furnish satisfactory evidences of his or their ability to complete the contract satisfactorily and all intending bidders will be required to show evidences of having satisfactorily performed such of closely similar work in the past.

Bidders may bid upon any part or parts of the contract as listed above.

Each bid must contain a certified check for the sum of $1000.00 guaranteeing the good faith of the bidder in signing the contract should said contract be awarded him.

All bids must be on the proposal blank provided and any change or changes made by the bidder in the printed matter of the proposal blanks will be ignored and the bid considered in terms of the conditions set forth.

All bids must be sealed and handed in person to Dr. W. F. Rayle, during the hour between 7:30 P.M. and 8:30 P.M. on June 8, 1915.

The City Council reserves the right to reject any or all bids or to accept or reject any part or parts of any bid.

JAS. E. McCLURE, Mayor.
W. W. PIPER, Supt., Public Improvements.
DR. W. F. RAYLE, Secy., to Council.
LEO HUDSON, Engineer,
1210 House Building, Pittsburgh, Pa.

* * *

Bids received until June 4, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at one o'clock p.m. on Friday, the 4th day of June, 1915, for the construction and repair of highways in the following counties:

Albany, 3 highways (3.41; 5.76; 4.20), 2 contracts (resurfacing); Cattaraugus, 1 highway (4.29); Cayuga, 1 contract (broken stone); Chemung, 1 highway (8.98); Dutchess, 1 contract (surface treatment); Essex, 2 highways (3.31; 0.52); Jefferson, 1 highway (4.60); Monroe, 2 highways (8.39; 1.51); Niagara, 1 contract (broken stone); Oneida, 1 highway (7.76), 2 contracts (resurfacing), 1 contract (surface treatment); Orange, 1 highway (6.27); Orleans, 3 highways (2.87; 7.46; 0.17); Oswego, 2 highways (7.75; 5.12), 1 contract (resurfacing); Rensselaer, 1 contract (surface treatment); St. Lawrence, 1 highway (5.66); Schenectady, 1 contract (resurfacing); Schuyler, 2 highways (8.98; 7.60); Seneca, 1 contract (broken stone); Tompkins, 1 highway (7.60); Wayne, 1 contract (broken stone).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose divisions the roads are to be constructed or repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders' in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. Morris, Secretary.

* * *

PROPOSALS FOR LEVEE WORK—Mississippi River Commission, 1st & 2d Districts, Room 20, Custom House, Memphis, Tenn., April 27, 1915.—Sealed proposals for constructing about 4,500,000 cubic yards of levee work in the Upper and Lower St. Francis, and White River Levee Districts, will be received at this office until 11 a.m., May 26, 1915, and then publicly opened. Information upon application. E. M. MARKHAM, Maj., Engrs.

Bids received until June 1, 1915.

Proposals to Construct the Superstructure and Substructure and Furnish and Install the Electrical Equipment for West Monroe Street Bridge, Chicago, Ill.

THE UNION STATION COMPANY
Chicago, Ill., May 6, 1915.

Sealed proposals will be received by The Union Station Company until 12:00 A.M., Tuesday, June first, 1915, at 521 West Adams St., Chicago, Ill., for the construction of a trunnion bascule bridge over the south branch of the Chicago River at West Monroe Street, according to plans and specifications on file in the office of the Chief Engineer of The Union Station Company at 521 West Adams St., Chicago, Ill.

Proposals must be made out upon blanks furnished at said office, and be addressed to the undersigned, and must be made separately upon the following items and endorsed as indicated:

1. Proposals for the "Substructure West Monroe Street Bridge," and be accompanied by Three Thousand Dollars ($3,000.00) in money or a certified check for the same amount on some responsible bank located and doing business in the City of Chicago, and made payable to the Chief Engineer of The United Station Company.

A deposit of Fifteen Dollars ($15.00) will be required to insure the safe return of plans and specifications.

2. Proposals for the "Superstructure West Monroe Street Bridge," and be accompanied by Three Thousand Dollars ($3,000.00) as above provided.

A deposit of Thirty Dollars ($30.00) will be required to insure the safe return of plans and specifications.

3. Proposals for "Electrical Equipment West Monroe Street Bridge," and be accompanied by Five Hundred Dollars ($500.00) as above provided.

A deposit of Ten Dollars ($10.00) will be required to insure the safe return of plans and specifications.

No proposal will be considered unless the party offering it shall furnish evidence satisfactory to the Chief Engineer of The Union Station Company of his experience and his ability to perform the work in the time called for in the specifications and that he has the necessary facilities or adequate means to procure such facilities together with sufficient pecuniary resources to fulfill the conditions of the contract and specifications, provided such contract should be awarded to him.

The above work is to be completed under the provisions of an ordinance passed March 23, 1914, and accepted by The Union Station Company September 23, 1914.

Companies or firms bidding will give the individual names as well as the name of the firm with their address.

The Union Station Company reserves the right to reject any or all bids.

THOS. RODD,
Chief Engineer, The Union Station Company.

* * *

Bids received until May 21, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m., Friday, the 21st day of May, 1915, for the improvement of Highways in the following counties:

Broome, 3 highways (1.03; 0.41; 0.28); Cattaraugus, 3 highways (5.62; 3.95; 6.88); Delaware, 3 highways (7.69; 11.40; 5.84); Genesee (approx. length 4.49); Greene (approx. length 4.43); Oneida (approx. length 5.73); Ontario, 4 highways (1.38; 1.23; 8.63; 1.53); St. Lawrence, 2 highways (5.07; 3.09); Schenectady (approx. length 3.34); Suffolk (approx. length 10.50); Washington, 2 highways (3.34; 5.96).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specification and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

Bids received until June 14, 1915.

Continuation of Construction of Storage Dam

Lock Haven, Pa., May 18, 1915.

Sealed proposals, endorsed "Bids for the Construction of a Portion of Storage Dam No. 1 on McElhattan Run, Wayne Township, Clinton County, Pa.," and addressed to Allen Sterner, Superintendent of Parks and Public Property, Lock Haven, Pa., will be received until 1 o'clock P.M., June 14, 1915, at which time the bids shall be publicly opened and read by the City Council in the City Council Chamber, and the contract awarded by said City Council at a future meeting, unless all bids are rejected. The work for which said proposals shall be made is a continuation of the construction of a Storage Dam, already begun, and embraces the construction of a portion of the dam only, and will require the following approximate quantities:

Concrete (plain and rubble)..	about	560	cubic yards
Earth excavation..............	"	10560	" "
Trench "	"	700	" "
Riprap	"	150	square yards
Earth Fill......................	"	150	cubic yards

1 24 inch double disc Gate Valve.
Removing of Stone Crusher Plant, etc.

Specifications, instructions to bidders, blank forms upon which bids must be made, and full plans for the proposed work will be furnished upon application to Allen Sterner, Superintendent of Parks and Public Property, Lock Haven, Pa., upon the deposit of $5.00, which amount will be refunded if the plans and specifications are returned in good order before June 14, 1915. The City Council reserve to themselves the right to reject any or all bids, as they may deem best for the interest of the City.

ALLEN STERNER,
Supt. Parks & Public Property,
Lock Haven, Pa.

H. P. SHOEMAKER, City Engineer.

⁂

FORT HUACHUCA, Ariz., May 8, 1915.—Sealed proposals, in triplicate, will be received here until 1 P.M., June 9, 1915, and then opened, for furnishing all materials, machinery and labor required in constructing complete an electric light and refrigerating plant and installing interior and exterior wiring system. $10 deposit required for plans and specifications. For information address CONSTRG. QUARTERMASTER.

U. S. ENGINEER OFFICE, Wilmington, N. C., Apr. 26, 1915. —Sealed proposals for furnishing and delivering about 22,000 barrels of Portland cement will be received at this office until 12 M., May 26, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 24, 1915. —Sealed proposals for constructing about 1000 feet standard 3-row timber dike, and about 5000 feet standard revetment on Missouri River, about 98 miles below Kansas City, and 6 miles below Waverly, will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, Louisville, Ky., May 4, 1915.— Sealed proposals for furnishing and erecting one Mitering Guard Gate of two leaves, for Lock No. 41, Ohio River, will be received here until 12 noon, Central time, June 4, 1915, and then publicly opened. Information on application. J. C. OAKES, Maj., Engrs.

PROPOSALS FOR DREDGING.—U. S. ENGINEER OFFICE, 815 Witherspoon Bldg., Philadelphia, Pa.—Sealed proposals will be received here until 12 NOON, JUNE 21, 1915, and then opened, FOR DREDGING IN DELAWARE RIVER, opposite Port Richmond coal piers, Philadelphia harbor. FURTHER information on application.

U. S. ENGINEER OFFICE, Wheeling, W. Va., May 3, 1915.— Sealed proposals for furnishing and delivering water turbines, air compressors, valve jacks, and gate winches, etc., for Dams Nos. 15 and 19, Ohio River, will be received at this office until 11 a.m. (Eastern time), June 2, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

U. S. ENGINEER OFFICE, 537 Congress Street, Portland, Me., May 10, 1915.—Sealed proposals for dredging in Portland Harbor, Maine, will be received at this office until 12 M., May 25, 1915, and then publicly opened. Information on application. F. A. POPE, Maj., Engrs.

Bids received until May 31, 1915.

Auxiliary Pumping Unit

PETERBOROUGH UTILITIES COMMISSION,
Peterborough, Ontario.

Sealed Tenders, endorsed "Tender for Pumping Unit," addressed to S. R. Armstrong, Esq., Secretary, Peterborough Utilities Commission, Peterborough, Ont., Canada, will be received until noon of May 31st, 1915, for the construction and installation in place of a complete Pumping Unit.

Tenders must be accompanied by a marked cheque as required by Specification.

Specifications may be obtained from the Secretary; address as above.

WM. KENNEDY, JR., Engineer,
364 University St., Montreal.

⁂

Bids received until June 7, 1915.

Grading and Masonry for a Portion of Section 2, New York Connecting Railroad

Philadelphia, Pa., May 14th, 1915.

Sealed proposals are invited for the construction of the grading and masonry of a portion of Section 2 of the New York Connecting Railroad, extending from a point near Bowery Bay Road to the south side of Fremont Street, in the Borough of Queens, City of New York, a distance of about 4.21 miles. Plans, specifications, form of contract, proposal blanks and instructions to bidders may be had by addressing A. C. SHAND, Chief Engineer, Southern Division, The New York Connecting Railroad Company, Broad Street Station, Philadelphia, Pa.

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U. S. ENGINEER OFFICE, First District, New York City, Room 710 Army Building, 39 Whitehall Street, New York, N. Y., April 28, 1915.—Sealed proposals for constructing and delivering combination drill scow and dredge "General Gillespie" will be received at this office until 12 M., May 28, 1915, and then publicly opened. Information on application. W. M. BLACK, Col., Engrs.

U. S. ENGINEER OFFICE, Wilmington, N. C., Apr. 26, 1915. —Sealed proposals for furnishing and delivering about 19,700 tons of crushed stone will be received at this office until 1 P.M., May 26, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engrs.

U. S. ENGINEER OFFICE, Kansas City, Mo., April 24, 1915. —Sealed proposals for constructing about 5500 feet standard 3-row timber dike on Missouri River, about 92 and 98 miles below Kansas City, opposite and about 6 miles below Waverly, will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. HERBERT DEAKYNE, Lieut.-Col., Engrs.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., April 8, 1915.—Sealed proposals for construction of concrete masonry for fourth lock at Sault Ste. Marie, Mich., will be received at this office until 12 M., May 24, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engrs.

U. S. ENGINEER OFFICE, Savannah, Ga., April 26, 1915. —Sealed proposals for construction and delivery of two (2) steel lighters will be received at this office until 12 o'clock, Noon (Eastern Standard Time), May 26, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Colonel, Engineers.

FORT SAM HOUSTON, TEX., May 11, 1915.—Sealed proposals, in triplicate, will be received here until 11 A.M., June 4, 1915, for constructing Commanding officers quarters, 2 six-set bachelor officers quarters, barrack, administration building; barrack and stable for pack train. Information upon application to CONSTRUCTING QUARTERMASTER.

U. S. ENGINEER OFFICE, 540 Federal Building, Buffalo. N. Y., May 19, 1915.—Sealed proposals for construction of concrete superstructure on north pier, Erie Harbor, Pa., will be received at this office until 11 a.m., June 19, 1915, and then publicly opened. Information on application. L. V. FRAZIER, Captain, Engineers.

U. S. ENGINEER OFFICE, Newport, R. I., May 17, 1915. Sealed proposals for dredging in the harbor of refuge at Block Island, R. I., will be received here until 12 o'clock, noon, June 16, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

DEPARTMENT OF THE INTERIOR, U. S. RECLAMATION SERVICE, Washington, D. C., May 14, 1915.—Sealed proposals will be received at the office of the United States Reclamation Service, Provo, Utah, until 2 o'clock P.M., June 16, 1915, for construction involving about 25,000 cubic yards of canal excavation, and about 2,600 cubic yards of reinforced concrete. The work is located near Payson City, Utah, on the San Pedro, Los Angeles and Salt Lake Railroad, and the Tintic Branch of the Denver & Rio Grande Railroad. For particulars address the United States Reclamation Service, Provo, Utah, or Washington, D. C. A. P. DAVIS, Chief Engineer

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U. S. ENGINEER OFFICE, Room 802, Army Building, 39 Whitehall Street, New York City, May 14, 1915.—Sealed Proposals for furnishing and placing rip-rap stone for repair and enlargement of sea wall at south end of U. S. lands at Sandy Hook, N. J., will be received at this office until 12 M., May 29, 1915, and then publicly opened. Information on application. FREDERIC V. ABBOT, Colonel, Engineers.

FORT SILL, OKLA., May 15, 1915.—Sealed proposals in triplicate will be received here until 11 A.M., June 15, 1915, for constructing Quartermaster Corps Barrack, double set engineer's quarters magazine, additions to 4 barrack buildings, 5 stables, repairing 9 double officers quarters, 3 barrack buildings, band barrack, shops and coal houses. Information on application. CONSTRUCTING QUARTERMASTER.

DEPARTMENT OF THE INTERIOR, Washington, D. C., May 13, 1915.—Sealed proposals, in duplicate, will be received at this Department until 2 p.m., Tuesday, June 8, 1915, and then opened, for the furnishing of stokers, coal and ash handling machinery, and other appliances, for the power house of the Government Hospital for the Insane, Anacostia, D. C., in accordance with plans and specifications, copies of which may be obtained upon application to the chief clerk of the Department. The right is reserved to reject any and all bids, or to accept or reject any part thereof in the discretion of the Department. Proposals should be securely enveloped, marked "Proposal for stokers, etc., Government Hospital for the Insane" and addressed to the Secretary of the Interior. BO SWEENEY, Assistant Secretary.

U. S. ENGINEER OFFICE, Newport, R. I., May 12, 1915.—Sealed proposals for rebuilding wharves and building new sea wall and coal house, at U. S. Bureau of Fisheries Station at Woods Hole, Mass., will be received here until 12 o'clock, noon, June 12, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

PROPOSALS FOR LEVEE WORK—Office of the Secretary, Mississippi River Commission, 1311 International Life Building, St. Louis, Mo.—Sealed proposals will be received here until 11 a.m., June 17, 1915, for constructing about 175,000 cubic yards of earthwork in the East Side Levee and Sanitary District, Ill. Further information on application.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities**, **Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale**, 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL AND CIVIL GRADUATE, water-supply and sewage disposal; private estates, institutions and towns; five years' experience on examination, design and construction. P. W. 290, Eng. News.

GRADUATE ELECTRICAL AND MECHANICAL ENGINEER with extensive experience in general engineering desires a position of office engineer with engineering corporation or chief engineer of industrial plant. P. W. 78, Eng. News.

Civil Engineers

WATER-SUPPLY, water power, dams, sewers; responsible charge, construction and design; present engagement soon terminates; age 34; Assoc. M. Am. Soc. C. E. P. W. 224, Eng. News.

GRADUATE CIVIL ENGINEER wants work of any kind in the engineering line; five years' experience, land surveys, canal, roads, sewers and street paving. P. W. 265, Eng. News.

CIVIL ENGINEER, Assoc. M. Am. Soc. C. E. desires position; 8 years' experience on the design of foundations and reinforced concrete bridges and buildings. Expert computer of arch stresses. P. W. 264, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT; 12 years continuous charge of engineering and construction work, mostly railroad; reinforced concrete a specialty; designing, estimating, etc.; experience in municipal work; executive ability; legal training; business education; references; moderate salary; just finished some work in Canada and available at any time for any location. For list of special training and experience. P. W. 260, Eng. News, Chicago.

CIVIL ENGINEER; 28, single, American, technical, railroad location, design and construction, hydro-electric, water works, subways, tunnels, reports and estimates; tropics and north, speak Spanish. P. W. 261, Eng. News.

CIVIL ENGINEER, technical graduate, Member Am. Soc. C. E.; 16 years' experience in construction and design especially waterworks and highways; speaks and writes Spanish; free after June 1. P. W. 267, Eng. News.

CIVIL ENGINEER, graduate, 14 years' practical experience; water-works and municipal consulting engineering; design and construction, earth, masonry, concrete and steel; investigations, reports, appraisals, fire protection; excellent references. P. W. 275, Eng. News.

CIVIL ENGINEERING STUDENT desires temporary work; has completed third year of course; good worker; salary secondary consideration. P. W. 291, Eng. News.

GRADUATE CIVIL ENGINEER, 32, eight years' varied experience, construction and surveying, desires position with engineer, contractor or industrial company in vicinity of New York; moderate salary; have instruments. P. W. 292, Eng. News.

CIVIL ENGINEER AND DRAFTSMAN, technical graduate, nine years' experience. Railway location and construction, designing and detailing reinforced concrete and structural steel. P. W. 299, Eng. News.

CIVIL ENGINEER, graduate, Assoc. M. Am. Soc. C. E., 15 years' experience, responsible charge general construction, railroads and municipal improvements, surveys, expert computer, have instruments. P. W. 284, Eng. News.

FIELD ENGINEER, eight years' experience on railroads, state highways, irrigation and municipal work, desires position anywhere, either location, construction or municipal work. P. W. 294, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER, graduate, 10 years' experience, designing, detailing bridges, industrial plants, filtration, hydro-electric power. P. W. 285, Eng. News, Chicago.

Surveyors

YOUNG MAN with eight years' experience in surveying, topography and construction desires position with engineer or contractor; hustler. P. W. 274, Eng. News.

I. C. S. STUDENT, age 20, desires position as chainman or rodman with some engineering company in New England. P. W. 295, Eng. News.

Draftsmen

ENGINEER AND DRAFTSMAN, 33, ten years' experience field and office work, estimating, designing and installing, building bridges, reinforced concrete and steel and general construction. P. W. 226, Eng. News.

TOPOGRAPHIC AND RAILROAD DRAFTSMAN, 30, experienced technical graduate, neat, rapid letterer, Reinhardt's style; permanent, responsible position only. P. W. 221, Eng. News, Chicago.

BY ENGINEER with experience in the design and detailing of first-class structural work. P. W. 234, Eng. News.

ENGINEER AND DRAFTSMAN, technical graduate, seven years' experience, field and office, drainage and irrigation work; A-1 letterer, Reinhardt's style; samples. P. W. 216, Eng. News.

DRAFTSMAN, 27; technical; 10 years' experience mechanical, electrical, structural; neat letterer; capable designer. P. W. 278, Eng. News.

STRUCTURAL DRAFTSMAN; M. I. T. graduate; first-class detailer; 2½ years with leading New York firm. Box 85, Barnstable, Mass.

FIRST CLASS DRAFTSMAN and designer, cranes, hoisting engines, shovel work, temporary or permanent. P. W. 287, Eng. News.

Superintendents, Etc.

SUPERINTENDENT, 15 years' experience, reinforced-concrete construction, especially bridges, water filtration, sewage-disposal works, foundation work, desires change from present connections to more responsible position; excellent reasons for changing; references furnished. P. W. 222, Eng. News.

ENGINEERING ASSISTANT experienced in cost accounting, statistical work, correspondence and office management, seeks position. P. W. 270, Eng. News.

MARRIED MAN, 28; eight years' experience railway location, construction and maintenance, needs employment. C. E. Newell, Griffin, Ga.

BY AN ENGINEER, good draftsman, eight years' experience in railroad engineering, rodman to resident engineer. Past two years erection engineer and estimator industrial building construction. Age 28. Married. Residence, P. W. 255, Eng. News, Chicago.

ESTIMATOR, building construction, reliable and quick in quantities, over 10 years' experience, good draftsman, can prepare details on wood and steel, etc., specialist in reinforced concrete, graduated civil engineer, 34, married, wants position; moderate salary. P. W. 253, Eng. News.

POSITION wanted with general contractor; capable office man, stenographer and outside. P. W. 277, Eng. News.

SUBMARINE DIVER, 12 years' experience in bridge work, coffer-dams and general under-water repairs seeks position with reliable contracting firm, permanent or temporary employment. P. W. 276, Eng. News.

GENERAL CONTRACTOR'S ENGINEER and estimator on all trades entering into every class of construction, mostly successful, desires permanent position. P. W. 280, Eng. News.

MINING ENGINEER. The undersigned is open for engagement, is a graduate of School of Mines, Columbia University, has had 23 years experience in mining and mechanical lines; as mine surveyor, engineer and superintendent; as designing, constructing and manufacturing engineer; as instructor and college professor. Edward B. Durham, 2227 Ward St., Berkeley, Calif.

A FIRST CLASS STEAM SHOVEL ENGINEER and master mechanic or walking boss; with 28 years' experience, with all classes of shovels and locomotives can furnish best of references, locality immaterial. P. W. 286, Eng. News.

POSITIONS OPEN

COMPETENT and experienced structural designer and estimator required for mill building work to take permanent position in Havana, Cuba, with manufacturing company. State experience, references and salary. P. 262, Eng. News.

SUPERINTENDENT OF ASPHALT PLANT; in New York City. Only those having had thorough experience in such a capacity need apply. Must be able to handle men, and understand thoroughly the machinery of an asphalt plant. Applicants should furnish a detailed statement or experience, giving age and references. P. 263, Eng. News.

HYDRAULIC DREDGE FOREMAN wanted; must have had long experience in this particular work. Applicants please state age and salary required and give details of experience. P. 217, Eng. News.

SUPERINTENDENT wanted to take charge of foundations for railroad bridge, steel cylinders filled with concrete. State age, experience and salary. Give references. P. 283, Eng. News.

SHOP FOREMAN by a large steel fabricating plant in the Middle West. State experience and salary expected. P. 282, Eng. News, Chicago.

FIRST CLASS FOREMAN for structural steel shop one thousand tons capacity in Havana City, Cuba, must be fully experienced in all departments of shops active and competent to handle Spanish speaking labor permanent position for right man give references, experience and salary expected. P. 288, Eng. News.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

ATTENTION—HELP—FREE—WHITE—COLORED. Employers free—service. 42 Montgomery St., Jersey City, N. J., Dept. 102, telephone 3746. Occupying entire building, Est. 1892. Forwarder of immigrants and emigrants for all kinds of work all over United States. Labor—shipping-colonization—agency. Advanced expenses to be deducted from wages. Mail all communications to S. S. Schwartz, Prop.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

LABORERS—Immigrants of any nationalities supplied at short notice at any part of the United States; camps and commissary runner; promptness and systems are our success. People's Labor Agency, 88 Baxter St., New York.

WANTED

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

WANTED ENGINEERING REPRESENTATIVES for Southern and Central States to represent the Thomas method of reinforced-concrete bridge construction. William M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

MECHANICAL SALESMAN now covering New York, New Jersey, Pennsylvania, wants negotiations; exclusive or side. W. 271, Eng. News.

SALES ENGINEER with established office would like to represent reputable manufacturer, Chicago and vicinity. W. 289, Eng. News, Chicago.

A TRAVELING SALESMAN to carry excellent side line on commission; to visit city engineers and sewer contractors. W. 293, Eng. News.

BUSINESS OPPORTUNITIES

CONSTRUCTION COMPANY (specializing concrete work), newly incorporated, offers good opportunity to man who can invest at least three thousand dollars ($3000). No triflers. Address Concrete, Room 416, 145 Nassau St., N. Y. C.

To Paving Contractors

You can have your Brick, Wood Block, Granite Block, Belgian Block and Asphalt Block paving done by a well organized paving crew which you can depend upon to do your work right. Especially your top work which is most difficult.

If you wish to sublet the above end of the work, will be glad to quote you.

J. G. Piscitelli, Paving Contractor

750 So. 8th Street, Phila., Pa.

Best of References ***Will furnish Bond***

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of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

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These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter taken from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

and save years spent in mis-directed efforts which are a necessary result of trying to acquire experience without the direct aid and assistance of an engineer properly experienced in such work.

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Second Hand Equipment

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

Equipment Wanted items appear at the end of this list.

N

ADVERTISERS' NAMES are abbreviated in most of these items, Complete names and addresses are as follows:

BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.

LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal & Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
TITAN Equipment Co., 30 Church St., N. Y. (Cort. 1111.)
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—Ingersoll-Rand H-3, 1000 Cu. Ft. Compound Steam Compound.—SAMPSON.

1—WB-2 Sullivan 909 Cu. Ft. Tandem Steam Driven Compound.—SAMPSON.

1—Rand Class "C" 527 Cu. Ft. and 2—Rand Class "C" 98 cu. ft. straight Line steam Driven.—SAMPSON.

1—Imperial XB-2, 1312 Cu. Ft. and 1—Imperial XB-2, 1190 Cu. Ft. Compound Belt Driven.—SAMPSON.

1—Ingersoll-Sergeant Class "E-1" 236 Cu. Ft. Belt Driven. —SAMPSON.

1—Blake 380 Cu. Ft. Duplex Steam Comp.; 1—Ing.-Serg. Class "F" 233 Cu. Ft. Straight Line Steam Driven.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

2 Norwalk 700 cu.ft. and 1200 cu.ft.; excellent condition. Reason for selling, mine worked out. No further use for same.—HANDY BROS. MINING CO., Bay City, Mich.

8x8" Gardner with receiver and gasoline engine on trucks. —GRIMSHAW.

ASPHALT

About 33 tons of Limmer Mastic and 1 ton Neuchatel Asphalt, cheap.—UNION PAVING CO., 30th and Locust Sts., Philadelphia, Pa.

BELT CONVEYORS

1—14" and 1—16" 50' centers.—GIVIN.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

96—42 cu.ft. Stuebner tip-over buckets.—SCHMIDT.

CARS

[Standard Gauge]

Flat car with derrick, 30' boom and bull wheel. House for machinery.—GRIMSHAW.

[24" Gauge]

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

12 Koppel 1¼ yd., steel V shape.—GRIMSHAW.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

1 Sturtevant, in perfect condition, used but 10 days; will sell cheap.—ARTHUR L. BATES, Meadville, Pa.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

125' boom, 35 ton cap. steel stiff leg with bull wheel; 4-section boom; removal mid-section adds capacity. Mast 75', sills 58', stiff legs spread 68'. High grade for yard or erecting work. Quick sale price.—TITAN.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

100 HP. Elyria tandem gas engine with air tank and engine; all in good shape; will sell cheap.—THE JACOBS LUMBER CO., Youngstown, Ohio.

EXCAVATORS

½ cu.yd. and up. Traction. Ideal for cellars, trenching, grading.—TITAN.

GENERATORS

Western Electric 100 K.W. dir. con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

7¼x10" Lambert 3 drum, swinger and boiler; overhauled, $700.—GRIMSHAW.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$145 Berger 18" Y level, new condition, $122; $345 Berger 1C transit, V circle, solar, etc., new, $245. Guaranteed; 99 others. Rentals, repairs, supplies.—ARCHITECTS & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

40-ton Climax geared, rebuilt; like new.—DALLETT.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

1—7 Ton, 4 wheel, Industrial, 21′ boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20′ boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

1—45 ft. 4-wheel Industrial.—WHITNEY.

4 or 8 wheel 5 to 40 ton capacities.—TITAN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

Smith ½ yd. Novo engine. Slightly used.—DALLETT.

1—No. 66—½ Yard "Ransome" with engine and pivot charging hopper, on wheels.—L. F. SEYFERT'S SONS, Inc., 437 N. Third St., Phila., Pa.

Lakewood ⅓ yd. and Austin Cube ½ yd., both with steam engine, boiler and side loader; Ransome, either steam or gasoline, ¾ yd.—WATERLOO CEMENT MACHINERY CORP'N, South Ferry Bldg., New York, N. Y.

PILING, SHEET STEEL

5000 pcs. Lackawanna, Carnegie and Wemlinger, various lengths.—GRIMSHAW.

165 pcs. Lackawanna 14″ arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

300,000 rethreaded wrought, sizes ¾″ to 24″.—MARINE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

RAILS

40 ton of 35 lb. with fish plates.—PIPE.

20,000 ft. 24″ gauge 20 lb. portable track.—SCHMIDT.

FOR SALE

An IROQUOIS Portable Asphalt Plant

has only mixed 6,000 yards. Capacity of 1,000 square yards per day. As good as new. Sold on account of retiring from paving business. For information and inspection write to

John Donahoe, General Contractor, Mahanoy City, Pa.

FOR SALE

Air Compressors
Blowers and Fans
Boilers
Buckets
Cars
Derricks
Drills
Electric Locomotives
Elevators
Elevator Engines
Engines
Feed Water Heaters
Generators
Grout Machines
Machine Tools
Pipe
Pumps
Oil Separators
Rails
Steel Pontoon
Turn Tables
Valves and Fittings

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.

Plant and Equipment for Sale

Including locomotives, gondolas, derricks, concrete mixers, rock drills, buckets, pumps, engines, elevators and conveyors. *Ask for new list with revised prices.*

ALABAMA POWER COMPANY,
Birmingham, Ala.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1 Tandem paving roller in excellent condition. Low price for quick sale. Write F. S. 296, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

"O" Thew, traction, Mass. boiler, high number.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—14B Bucyrus traction revolving ⅝ yd.—GIVIN.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

Wanted

To purchase from 50 to 100 contractor's steel skips or scale boxes, from 3 to 5 yds. capacity. State price and location. W. 266, Eng. News.

Macadam roller at a bargain, size 10-ton. Send price and other information to W. 297, Eng. News.

Wanted to rent for a period from 3 to 4 months, two 10-ton embankment rollers. Send information to E. W. FOLEY CONTRACTING CORPORATION, Ashby, Mass.

8-wheel locomotive crane 15 to 30 tons cap., 35′ to 50′ boom, to operate grab bucket. Reply K. R. B., W. 298, Eng. News.

ROBINS CONVEYING MACHINERY

Our bulletins describe the successful solution of many materials-handling problems. Let them help you.

ROBINS CONVEYING BELT COMPANY

New York, 14 Park Row **Chicago, Old Colony Building**

San Francisco, The Griffin Co. Spokane, United Iron Works.
Toronto, Gutta Percha & Rubber, Ltd. New Glasgow, Eastern Steel Co., Ltd., London, E. C., Fraser & Chalmers, Ltd.

CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York. Western Union & Lieber Codes Used.
Cable Address, Pawnee Havana. Havana Office, Zulueta 36 D.

THE SNARE AND TRIEST COMPANY

Woolworth Building, 233 Broadway **New York**

FOR SALE

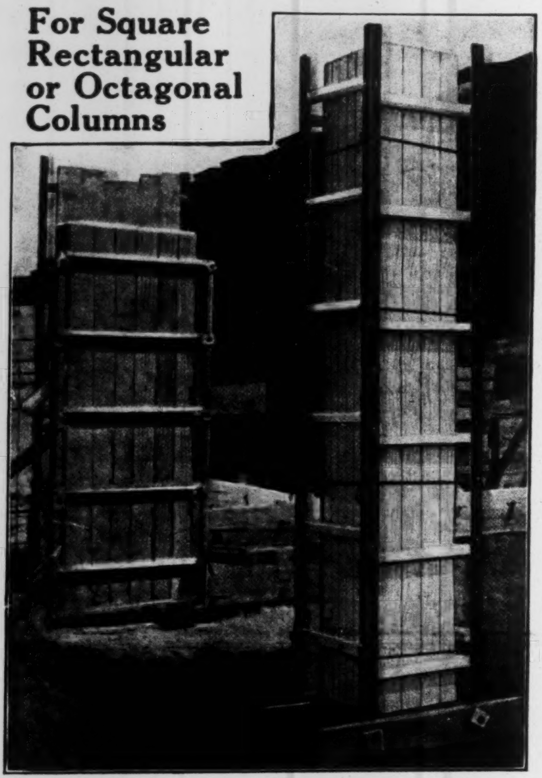
Building Contractors' Machinery

1—No. 11 Austin Cube Mixer on truck.
1—No. 8 Austin Cube Mixer on truck.
2—Sterling Concrete Carts.
1—No. 218 Insley Combination Hoist complete with Sheave Sets for wooden tower.
1—No. 724 Insley Receiving Hopper with No. 701 gate.
1—40 ft. section open spouting trussed.
1—Hoisting Engine, 7x10, D.C. S. F. D. American, complete with boiler.
1—Hoisting Engine Double Friction Drum Skeleton Lambert.

Above material used by owners in building construction.

Pennsylvania Rubber Company
Jeannette, Pa.

For Square Rectangular or Octagonal Columns



Mr. Contractor

When the Bidding's Close, Figure on

New England Column Clamps

Study this photograph—you can easily see why the New England is the simplest column clamp made.

The angles at the corner hold the forms straight and rigid, bringing window and door jambs true to line.

Clamps, straightens and squares the column at one operation.

Use over and over again

New England Clamps are not appliances that require a large outlay of money to finally reduce costs. THE FIRST COST IS LOW.

Mr. Sanford E. Thompson, the eminent Consulting Engineer of Boston in a report on these clamps, based on a special investigation of different types of forms, says:—"The cost of making up a complete column form is about 15% cheaper than with the bolted type. The cost of assembling a column form is about 20% cheaper than with the bolted type."

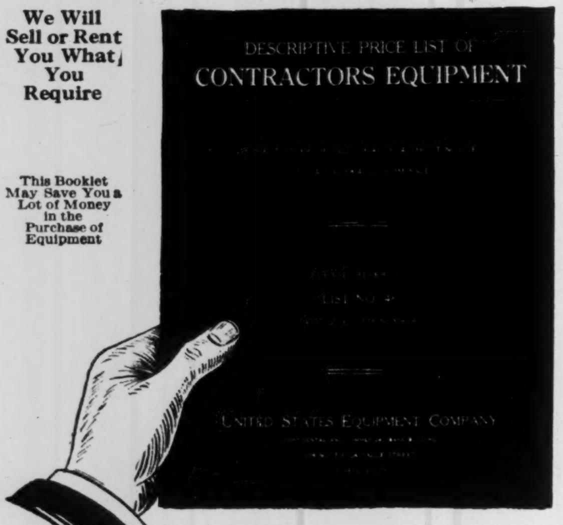
Contractors throughout the country may avail themselves of the right to use this clamp, of which we hold the exclusive patents, by payment of a small license fee.

Write today for complete details.

New England Column Clamp Co.
6 Beacon St., Boston, Mass.

We Will Sell or Rent You What You Require

This Booklet May Save You a Lot of Money in the Purchase of Equipment



If USED Equipment in GOOD Condition Will Do Your Work Satisfactorily, WHY BUY NEW?

WRITE FOR THE PRICE LIST DESCRIBING:

Locomotives
Steam Shovels
Dump Cars
Air Compressors
Boilers
Orange Peel and Clam Shell Buckets

Cableways
Concrete Buckets
Skips
Concrete Mixers
Rock Crushers

Drills
Hoisting Engines
Pile Hammers
Pumps
Etc., Etc.

United States Equipment Company
208 South La Salle St., CHICAGO, ILL.

HYDRAULIC

Pressed Steel Forms for All Kinds of Concrete Work

As leaders in pressed steel manufacture we are especially well equipped to take care of contractors' needs. Our forms possess many new improvements. Far cheaper to use than wood forms. **Write for particulars.**

The Hydraulic Pressed Steel Co.
3152 E. 61st St., Cleveland, Ohio

Chicago, Ill., American Metal Form Co., 1205 Fisher Bldg. Philadelphia, Pa., Lee S. Harris, Drexel Bldg. Louisville, Ky., Roy C. Whayne Supply Co. New York, N. Y., Brown & Sites Co., 30 Church St.

"Ten acres of pressed steel capacity."

Contracts to Be Let

Bids received until June 8, 1915.

Sheet Asphalt Paving

Rahway, N. J.

Sealed proposals will be received by the Common Council of the City of Rahway, N. J., Tuesday evening, June 8th, at 8 o'clock, at the City Hall, for the paving of Milton avenue, from the Pennsylvania Railroad to St. Georges avenue, with sheet asphalt pavement. Approximate amount of work to be done:

Excavate present surface of street to subgrade.
Lay 10,270 sq.yds. of sheet asphalt pavement on 6 inch concrete foundation.
Reset 5311 lin.feet of curb in concrete.

A certified check for $1000.00 to accompany each bid, payable to "The Mayor and Common Council of the City of Rahway."

The Common Council reserves the right to reject any or all bids.

FRANKLIN MARSH, City Engineer.

Rahway, N. J., May 24th, 1915.

⁂

Bids received until June 7, 1915.

Proposals for Shore Protection Works

Stone Harbor, N. J., May 22nd, 1915.

Sealed proposals indorsed "Bids for Shore Protection Works" will be received by the Borough Council of Stone Harbor until 8 o'clock on the evening of the seventh day of June, 1915, the time set for the Council meeting at the Council Chamber (School House) at Stone Harbor, N. J., and the public opening and scheduling of Proposals.

The work covers the construction of about 8250 ft. of timber bulkhead with brush and stone apron, about 4000 ft. of pile, brush and stone jetties, about 220,000 cu.yds. sand fill, about 17,000 cu.yds. of gravel cover fill, and other appurtenant work; time completion, 200 working days. Proposal blanks, plans and specifications are on file at the office of the Borough Clerk, and may be obtained from the Engineer in charge of the work, Mr. Harry E. Weir, Wildwood, N. J., upon personal or written application with deposit of ($25.00) drawn to his order; deposit refunded on return of specifications, etc. Certified check or a "Bidders Bond" in the amount of Five Thousand Dollars required with bid as security for acceptance of contract. Limit of appropriation about one hundred and seventy thousand dollars. The right to reject any or all bids reserved.

LEO F. McCRAVEN, Borough Clerk.

⁂

Bids received until June 2, 1915.

Refrigeration Equipment

Beacon, N. Y.

Sealed proposals for Refrigeration Equipment for Storehouse at Matteawan State Hospital, Beacon, N. Y., will be received by Hon. John B. Riley, Superintendent of Prisons, Capitol, Albany, N. Y., until 2:30 P.M. on Wednesday, June 2, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of five per cent. (5%) of the amount of bid. The contractor to whom the award is made will be required to furnish surety company bond in the sum of fifty per cent. (50%) of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 1949. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Matteawan State Hospital, Beacon, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

Bids received until June 8, 1915.

Sewage Disposal Plant and Appurtenances

Beaver Falls, Pa.

Sealed bids will be received by the Beaver Falls City Council for the construction of a sewage disposal plant, between the hours of 7:30 P.M. and 8:30 P.M. standard eastern time, June 8, 1915, and the bids will immediately thereafter be publicly opened and read.

The work consists of:

Part 1. Four Imhoff Tanks and Pump House.
Part 2. One Luiquid Chlorine Sterilizing Outfit.
Part 3. One Oil Engine, belt driven Centrifugal Pump.
Part 4. Sludge Drying Beds.
Part 5. Necessary Piping.

Plans and specifications can be secured from the engineer, Leo Hudson, 1210 House Building, Pittsburgh, Pa., upon a deposit of five ($5.00) dollars, said deposit being refunded to the bidder upon the return of said plans and specifications by June 15, 1915, in good condition.

All intending bidders will be required to furnish satisfactory evidences of his or their ability to complete the contract satisfactorily and all intending bidders will be required to show evidences of having satisfactorily performed such of closely similar work in the past.

Bidders may bid upon any part or parts of the contract as listed above.

Each bid must contain a certified check for the sum of $1000.00 guaranteeing the good faith of the bidder in signing the contract should said contract be awarded him.

All bids must be on the proposal blank provided and any change or changes made by the bidder in the printed matter of the proposal blanks will be ignored and the bid considered in terms of the conditions set forth.

All bids must be sealed and handed in person to Dr. W. F. Rayle, during the hour between 7:30 P.M. and 8:30 P.M. on June 8, 1915.

The City Council reserves the right to reject any or all bids or to accept or reject any part or parts of any bid.

JAS. E. McCLURE, Mayor.
W. W. PIPER, Supt., Public Improvements.
DR. W. F. RAYLE, Secy., to Council.
LEO HUDSON, Engineer,
1210 House Building, Pittsburgh, Pa.

⁂

Bids received until June 14, 1915.

Concrete Pavement

Sault Ste. Marie, Mich.

Sealed proposals will be received by the Board of Public Works, Sault Ste. Marie, Mich., not later than 4 P.M., Monday, June 14th, 1915, and then publicly opened, for the construction, in accordance with the plans and specifications on file at the office of Ross A. Frederick, City Engineer, of a bituminous coated concrete pavement on Portage Avenue between Bingham Avenue and the Portage Avenue Bridge, consisting of approximately 12,000 sq.yds. of pavement with the adjacent curbs and approaches.

All bids are to be accompanied by a certified check in the amount of 5% of the pavement bid, which check of the successful contractor will be retained by the Board until after the execution of the contract.

The right is reserved to reject any or all bids.

BOARD OF PUBLIC WORKS.
A. J. EATON, Secy.

⁂

OFFICE OF THE COMMISSIONERS, D. C., May 25, 1915.—SEALED PROPOSALS will be received at this office, Room 509 District Building, until 2 o'clock P.M., on June 3, 1915, for the construction of Sewers in the District of Columbia, involving the construction of about 600 linear feet of trunk sewer, 6′ 0″ diameter. Forms of proposals, specifications and necessary information may be obtained from the Chief Clerk, Engineer Department, Room 427 District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

Bids received until June 1, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. on Tuesday, the 1st day of June, 1915, for the repair of highways in the following counties:

Albany (one contract—surface treatment); Chenango (two contracts—surface treatment); Clinton (one contract—surface treatment); Cortland (one contract—surface treatment); Delaware (one contract—surface treatment); Erie (one contract—surface treatment); Essex (two contracts—surface treatment); Fulton (one contract—surface treatment); Herkimer (one contract—surface treatment); Jefferson (one contract—surface treatment); Madison (one contract—surface treatment); Monroe (one contract—surface treatment); Montgomery (two contracts—surface treatment); Orange (one contract—surface treatment, one contract—resurfacing); Otsego (one contract—surface treatment); Rensselaer (two contracts—surface treatment); St. Lawrence (one contract—surface treatment, one contract—resurfacing); Saratoga (one contract—surface treatment); Schenectady (one contract—surface treatment); Schoharie (one contract—surface treatment); Steuben (one contract—resurfacing); Sullivan (one contract—surface treatment); Warren (one contract—resurfacing and surface treatment); Washington (one contract—surface treatment).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose divisions the contracts are to be repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.

I. J. MORRIS, Secretary.

⁂

Bids received until June 9, 1915.

Electric Traveling Cranes, etc.

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans, at their office, Suite 200, New Orleans Court Building, until June 9th, at 8 o'clock P.M., and then be publicly opened, for the furnishing and erecting of fifteen (15) or more Electric Traveling Cranes, two (2) Transfer Cranes, and one Crane Transfer and Elevator, for the Cotton Warehouses and Terminal, located on the east bank of the Mississippi River between Valence and Soniat Streets.

Deposit required with proposal $3,000.

Deposit required with contract $20,000.

On and after May 22nd, plans and specifications will be on file at the office of Ford, Bacon & Davis, 921 Canal Street, New Orleans, La., where full sets will be furnished to prospective bidders on a deposit of $25.000, which will be refunded to bidders who submit proposals. $15.00 will be refunded to bidders who do not submit proposals.

The right is reserved to reject any and all bids.

ERNEST M. LOEB, President.

⁂

Bids received until June 7, 1915.

Grading and Masonry for a Portion of Section 2, New York Connecting Railroad

Philadelphia, Pa., May 14th, 1915.

Sealed proposals are invited for the construction of the grading and masonry of a portion of Section 2 of the New York Connecting Railroad, extending from a point near Bowery Bay Road to the south side of Fremont Street, in the Borough of Queens, City of New York, a distance of about 4.21 miles. Plans, specifications, form of contract, proposal blanks and instructions to bidders may be had by addressing A. C. SHAND, Chief Engineer, Southern Division, The New York Connecting Railroad Company, Broad Street Station, Philadelphia, Pa.

Bids received until June 14, 1915.

Continuation of Construction of Storage Dam

Lock Haven, Pa., May 18, 1915.

Sealed proposals, endorsed "Bids for the Construction of a Portion of Storage Dam No. 1, on McElhattan Run, Wayne Township, Clinton County, Pa.," and addressed to Allen Sterner, Superintendent of Parks and Public Property, Lock Haven, Pa., will be received until 1 o'clock P.M., June 14, 1915, at which time the bids shall be publicly opened and read by the City Council in the City Council Chamber, and the contract awarded by said City Council at a future meeting, unless all bids are rejected. The work for which said proposals shall be made is a continuation of the construction of a Storage Dam, already begun, and embraces the construction of a portion of the dam only, and will require the following approximate quantities:

Concrete (plain and rubble)..	about	560	cubic yards
Earth excavation..............	"	10560	" "
Trench "	"	700	" "
Riprap	"	150	square yards
Earth Fill....................	"	150	cubic yards

1 24 inch double disc Gate Valve.
Removing of Stone Crusher Plant, etc.

Specifications, instructions to bidders, blank forms upon which bids must be made, and full plans for the proposed work will be furnished upon application to Allen Sterner, Superintendent of Parks and Public Property, Lock Haven, Pa., upon the deposit of $5.00, which amount will be refunded if the plans and specifications are returned in good order before June 14, 1915. The City Council reserve to themselves the right to reject any or all bids, as they may deem best for the interest of the City.

ALLEN STERNER,
Supt. Parks & Public Property,
Lock Haven, Pa.

H. P. SHOEMAKER, City Engineer.

⁂

Bids received until June 4, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at one o'clock p.m. on Friday, the 4th day of June, 1915, for the construction and repair of highways in the following counties:

Albany, 3 highways (3.41; 5.76; 4.20), 2 contracts (resurfacing); Cattaraugus, 1 highway (4.29); Cayuga, 1 contract (broken stone); Chemung, 1 highway (8.98); Dutchess, 1 contract (surface treatment); Essex, 2 highways (3.31; 0.52); Jefferson, 1 highway (4.60); Monroe, 2 highways (8.39; 1.51); Niagara, 1 contract (broken stone); Oneida, 1 highway (7.76), 2 contracts (resurfacing), 1 contract (surface treatment); Orange, 1 highway (6.27); Orleans, 3 highways (2.87; 7.46; 0.17); Oswego, 2 highways (7.75; 5.12), 1 contract (resurfacing); Rensselaer, 1 contract (surface treatment); St. Lawrence, 1 highway (5.66); Schenectady, 1 contract (resurfacing); Schuyler, 2 highways (8.98; 7.60); Seneca, 1 contract (broken stone); Tompkins, 1 highway (7.60); Wayne, 1 contract (broken stone).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose divisions the roads are to be constructed or repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders' in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.

I. J. MORRIS, Secretary.

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TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., May 21, 1915.—Sealed proposals will be opened in this office at 3 p.m., July 2, 1915, for the construction complete (including mechanical equipment and approaches) of a two-story and basement stone and brick-faced building of 17,000 square feet ground area, fireproof construction, composition and copper roof, for the United States post office and courthouse at Charlotte, N. C. Drawings and specifications may be obtained from the custodian of the site at Charlotte, N. C., or at this office, in the discretion of the Acting Supervising Architect. JAS. A. WETMORE, Acting Superv. Architect.

Bids received until June 2, 1915.

Contract 9—Nepaug Reservoir East Dike

Hartford, Conn.

Sealed proposals, addressed to the Board of Water Commissioners of the City of Hartford, for the construction of the East Dike, Nepaug Reservoir, in the Town of Canton, Conn., will be received at the office of the Board, City Hall, Hartford, until 3:00 p.m., Wednesday, June 2, 1915.

This contract comprises the construction of an earth dam 25 feet high and 600 feet long, with concrete core wall, and will require about 1600 cubic yards of trench excavation, 32,000 cubic yards of earth embankment and 1800 cubic yards of concrete masonry.

Plans and specifications may be obtained at the office of the Chief Engineer, Pilgard Building, Hartford, Conn., on deposit of $5.00, which amount will be refunded if the plans and specifications are returned in good order before July 2, 1915. Checks should be made to the order of the Board of Water Commissioners. Specifications used in making a bid will be considered as returned.

A certified check or cashier's check for $2500 must accompany each bid and the successful bidder will be required to furnish bonds in the sum of $25,000.

The right is reserved to reject any or all bids.

BOARD OF WATER COMMISSIONERS,
WALTER S. GARDE, President.
FRED D. BERRY, Secretary.

CALEB MILLS SAVILLE,
Chief Engineer.

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U. S. ENGINEER OFFICE, Louisville, Ky., May 4, 1915. Sealed proposals for furnishing and erecting one Mitering Guard Gate of two leaves, for Lock No. 41, Ohio River, will be received here until 12 noon, Central time, June 4, 1915, and then publicly opened. Information on application. J. C. OAKES, Maj., Engrs.

U. S. ENGINEER OFFICE, Room 802, Army Building, 39 Whitehall Street, New York City, May 14, 1915.—Sealed Proposals for furnishing and placing rip-rap stone for repair and enlargement of sea wall at south end of U. S. lands at Sandy Hook, N. J., will be received at this office until 12 M., May 29, 1915, and then publicly opened. Information on application. FREDERIC V. ABBOT, Colonel, Engineers.

FORT SILL, OKLA., May 15, 1915.—Sealed proposals in triplicate will be received here until 11 A.M., June 15, 1915, for constructing Quartermaster Corps Barrack, double set engineer's quarters magazine, additions to 4 barrack buildings, 5 stables, repairing 9 double officers quarters, 3 barrack buildings, band barrack, shops and coal houses. Information on application. CONSTRUCTING QUARTERMASTER.

FORT HUACHUCA, Ariz., May 8, 1915.—Sealed proposals, in triplicate, will be received here until 1 P.M., June 9, 1915, and then opened, for furnishing all materials, machinery and labor required in constructing complete an electric light and refrigerating plant and installing interior and exterior wiring system. $10 deposit required for plans and specifications. For information address CONSTRG. QUARTERMASTER.

FORT SAM HOUSTON, TEX., May 11, 1915.—Sealed proposals, in triplicate, will be received here until 11 A.M., June 4, 1915, for constructing Commanding officers quarters, 2 six-set bachelor officers quarters, barrack, administration building; barrack and stable for pack train. Information upon application to CONSTRUCTING QUARTERMASTER.

U. S. ENGINEER OFFICE, Savannah, Ga., May 21, 1915.—Sealed proposals for repairs to bank protection of Savannah River at Augusta, Ga., will be received at this office until 12 noon (Eastern Standard Time), June 21, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Colonel, Engineers.

U. S. ENGINEER OFFICE, Wheeling, W. Va., May 3, 1915.—Sealed proposals for furnishing and delivering water turbines, air compressors, valve jacks, and gate winches, etc., for Dams Nos. 15 and 19, Ohio River, will be received at this office until 11 a.m. (Eastern time), June 2, 1915, and then publicly opened. Information on application. T. H. JACKSON, Major, Engrs.

PROPOSALS FOR DREDGING.—U. S. ENGINEER OFFICE, 815 Witherspoon Bldg., Philadelphia, Pa.—Sealed proposals will be received here until 12 NOON, JUNE 21, 1915, and then opened, FOR DREDGING IN DELAWARE RIVER, opposite Port Richmond coal piers, Philadelphia harbor. FURTHER information on application.

PROPOSALS FOR LEVEE WORK—Office of the Secretary, Mississippi River Commission, 1311 International Life Building, St. Louis, Mo.—Sealed proposals will be received here until 11 a.m., June 17, 1915, for constructing about 175,000 cubic yards of earthwork in the East Side Levee and Sanitary District, Ill. Further information on application.

Bids received until June 1, 1915.

Sewer Construction

DEPARTMENT OF WORKS

Oswego, N. Y., May 18th, 1915.

Sealed proposals will be received by the Department of Works up to 2 P.M. June 1st, 1915, and then opened, for the following sewer construction:

505 Ft. 36″ Vit. Tile, Vit. Seg. Block or Concrete Sewer
240 " 33″ " " " " " " " "
294 " 30″ " " " " " " " "
306 " 24″ " " " " " " " "
150 " 22″ " " " " " " " "
294 " 20″ " " " " " " " "
50 " 18″ "
503 " 15″ "
778 " 12″ "
1947 " 10″ "
10448 " 8″ "
497 Y-Branches
35 Manholes
14 Flush Ends

The work will be divided into five contracts and the proposals submitted therefor must be accompanied by a certified check for 10% of the amount of each proposal.

Plans and specifications and any further information desired on the above work can be obtained at the office of this Department on payment of $5.00.

The Department of Works reserves the right to reject any or all bids.

CHARLES W. LINSLEY,
Commissioner of Works.

⁂

Bids received until June 9, 1915.

Return Tubular Boilers, etc.

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans, at their office, Suite 200, New Orleans Court Building, until June 9th, at 8 o'clock P.M., and then be publicly opened for furnishing and installing three horizontal return tubular boilers, with settings, breeching and appurtenances to be installed in the Cotton Warehouses and Terminal, located on the east bank of the Mississippi River between Valence and Soniat Streets.

Deposit required with proposal $500.00.

Bond required with contract $3,000.00.

On and after May 22nd, plans and specifications will be on file at the office of Ford, Bacon & Davis, 921 Canal Street, New Orleans, La., where full sets will be furnished to prospective bidders on a deposit of $25.00, which will be refunded to bidders submitting proposals. To bidders who do not submit proposals, $15.00 will be refunded.

The right is reserved to reject any and all bids.

ERNEST M. LOEB, President.

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Bids received until June 7, 1915.

Paving

Blue Earth, Minn.

Bids will be received until 8 P.M., June 7, 1915, for paving work to cost about $50,000. Bids are asked on brick, creosoted blocks, asphaltic concrete, sheet asphalt, concrete, etc.

Plans and specifications are on file at the office of the City Clerk, Blue Earth, and Engineer,

E. T. ABBOTT,
425 Kasota Block, Minneapolis, Minn.

⁂

Contractors

BIDS OPENED JUNE 15, 1915,

for the construction of Section No. 1 of Route No. 29, being a part of the Eastern Parkway Rapid Transit Railroad. (Nostrand Ave. branch.)

A two-track underground railroad in the Borough of Brooklyn, beginning at a point under Eastern Parkway about 192 ft. west of Nostrand Ave. and running thence under Eastern Parkway and Nostrand Ave. to a point about 220 ft. south of Church Ave.

Write or call concerning form of contract, plans and specifications.

PUBLIC SERVICE COMMISSION FOR THE FIRST DISTRICT,
154 Nassau St., New York City.

U. S. ENGINEER OFFICE, Room 707, Army Building, 39 Whitehall St., New York, N. Y.—Sealed proposals will be received here until 12 M., June 25, 1915, and then opened, for furnishing and placing riprap and repairing sea wall at Governors Island, N. Y. Further information on application.

PROPOSALS FOR STRUCTURAL METAL—U. S. Engineer Office, Vicksburg District, Vicksburg, Miss.—Sealed proposals will be received here until 12 m., June 15, 1915, and then opened, for furnishing steel lock gates, valves, Poiree trestles, operating machinery, etc., aggregating about 450,000 pounds. Further information on application.

U. S. ENGINEER OFFICE, Cincinnati, O., May 26, 1915.—Sealed proposals for building a Power House at Dam No. 29, Ohio River, near Ashland, Ky., will be received here until 2 p.m., June 15, 1915, and then publicly opened. Information on application. H. JERVEY, Lt.-Col., Engrs.

U. S. ENGINEER OFFICE, 540 Federal Building, Buffalo, N. Y., May 19, 1915.—Sealed proposals for construction of concrete superstructure on north pier, Erie Harbor, Pa., will be received at this office until 11 a.m., June 19, 1915, and then publicly opened. Information on application. L. V. FRAZIER, Captain, Engineers.

U. S. ENGINEER OFFICE, Newport, R. I., May 17, 1915. Sealed proposals for dredging in the harbor of refuge at Block Island, R. I., will be received here until 12 o'clock, noon, June 16, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

U. S. ENGINEER OFFICE, Newport, R. I., May 12, 1915.—Sealed proposals for rebuilding wharves and building new sea wall and coal house, at U. S. Bureau of Fisheries Station at Woods Hole, Mass., will be received here until 12 o'clock, noon, June 12, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities**, **Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale**, 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL AND CIVIL GRADUATE, water-supply and sewage disposal; private estates, institutions and towns; five years' experience on examination, design and construction. P. W. 290, Eng. News.

MECHANICAL ENGINEER, Columbia graduate, some outside experience, desires position in engineering or manufacturing line offering opportunities. Location and salary immaterial. P. W. 314, Eng. News.

Civil Engineers

WATER-SUPPLY, water power, dams, sewers; responsible charge, construction and design; present engagement soon terminates; age 34; Assoc. M. Am. Soc. C. E. P. W. 224, Eng. News.

GRADUATE CIVIL ENGINEER, wants work of any kind in the engineering line; five years' experience, land surveys, canal, roads, sewers and street paving. P. W. 265, Eng. News.

CIVIL ENGINEER, Assoc. M. Am. Soc. C. E. desires position; 8 years' experience on the design of foundations and reinforced concrete bridges and buildings. Expert computer of arch stresses. P. W. 264, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT; 12 years continuous charge of engineering and construction work, mostly railroad; reinforced concrete a specialty; designing, estimating, etc.; experience in municipal work; executive ability; legal training; business education; references; moderate salary; just finished some work in Canada and available at any time for any location. For list of special training and experience. P. W. 260, Eng. News, Chicago

CIVIL ENGINEER; 28, single, American, technical, railroad location, design and construction, hydro-electric, water works, subways, tunnels, reports and estimates; tropics and north, speak Spanish. P. W. 261, Eng. News.

CIVIL ENGINEER, technical graduate. Member Am. Soc. C. E.; 16 years' experience in construction and design especially waterworks and highways; speaks and writes Spanish; free after June 1. P. W. 267, Eng. News.

CIVIL ENGINEER, graduate, 14 years' practical experience; water-works and municipal consulting engineering; design and construction, earth, masonry, concrete and steel; investigations, reports, appraisals, fire protection; excellent references. P. W. 275, Eng. News.

CIVIL ENGINEER, graduate, Assoc. M. Am. Soc. C. E., 15 years' experience, responsible charge general construction, railroads and municipal improvements, surveys, expert computer, have instruments. P. W. 284, Eng. News.

FIELD ENGINEER, eight years' experience on railroads, state highways, irrigation and municipal work, desires position anywhere, either location, construction or municipal work. P W. 294, Eng. News.

GRADUATE CIVIL ENGINEER, 32, eight years' varied experience, construction and surveying, desires position with engineer, contractor or industrial company in vicinity of New York; moderate salary; have instruments. P. W. 310, Eng. News.

GRADUATE CIVIL ENGINEER, 13 years' experience in all classes of steel structures, bridges and subways; shop drawings, estimating and designing, past 10 years with leading bridge company, desires change. P. W. 301, Eng. News.

GRADUATE ENGINEER wishes position with engineer or contractor; two years' estimating construction experience. P. W. 302, Eng. News.

CONSTRUCTION CIVIL ENGINEER; six years' practical experience as erector on steel and industrial plant work, buildings, furnaces, machinery, steel, brick, concrete and excavation wants to make change. Will consider sales force, no experience. P. W. 309, Eng. News.

CIVIL ENGINEER, graduate with high reference, twenty years' experience surveys, design, construction, railways, bridges, tunnels, foundations and hydraulic works open to engagement. P. W. 307, Eng. News.

GRADUATE CIVIL ENGINEER desires position; location immaterial; salary secondary consideration. P. W. 312, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER, graduate, 10 years' experience, designing, detailing bridges, industrial plants, filtration, hydro-electric power. P. W. 285, Eng. News, Chicago.

Draftsmen

TOPOGRAPHIC AND RAILROAD DRAFTSMAN, 30, experienced technical graduate, neat, rapid letterer, Reinhardt's style; permanent, responsible position only. P. W. 221, Eng. News, Chicago.

ENGINEER AND DRAFTSMAN, technical graduate, seven years' experience, field and office, drainage and irrigation work; A-1 letterer, Reinhardt's style; samples. P. W. 216, Eng. News.

FIRST CLASS DRAFTSMAN and designer, cranes, hoisting engines, shovel work, temporary or permanent. P. W. 287, Eng. News.

LADY desires position as draftsman in engineer's office; salary moderate; location anywhere. P. W. 308, Eng. News, Chicago.

Superintendents, Etc.

ESTIMATOR, building construction, reliable and quick in quantities, over 10 years' experience, good draftsman, can prepare details on wood and steel, etc., specialist in reinforced concrete, graduated civil engineer, 34, married, wants position; moderate salary. P. W. 253, Eng. News.

SUBMARINE DIVER, 12 years' experience in bridge work, coffer-dams and general under-water repairs seeks position with reliable contracting firm, permanent or temporary employment. P. W. 276, Eng. News.

GENERAL CONTRACTOR'S ENGINEER and estimator on all trades entering into every class of construction, mostly successful, desires permanent position. P. W. 280, Eng. News.

A FIRST CLASS STEAM SHOVEL ENGINEER and master mechanic or walking boss; with 28 years' experience, with all classes of shovels and locomotives can furnish best of references, locality immaterial. P. W. 286, Eng. News.

ENGINEER familiar with the work of planning shops and factories and with the design of structures and machinery desires engagement. P. W. 311, Eng. News.

SALES REPRESENTATIVE, employed, 15 years' experience hoisting and excavating machinery, wants to connect with growing concern, any good line; Middle West preferred. P. W. 300, Eng. News, Chicago.

SUPERINTENDENT; nine years reinforced concrete building construction, good organizer, location immaterial, references. Now employed. P. W. 306, Eng. News.

WANTED TO REPRESENT MANUFACTURER in New York territory, by man well acquainted with the pump and power-plant field; several years successfully representing a prominent firm. Address A, Room 322-E, 30 Church St., New York City.

POSITIONS OPEN

COMPETENT and experienced structural designer and estimator required for mill building work to take permanent position in Havana, Cuba, with manufacturing company. State experience, references and salary. P. 262, Eng. News.

SHOP FOREMAN by a large steel fabricating plant in the Middle West. State experience and salary expected. P. 282, Eng. News, Chicago.

FIRST CLASS FOREMAN for structural steel shop one thousand tons capacity in Havana City, Cuba, must be fully experienced in all departments of shops active and competent to handle Spanish speaking labor permanent position for right man give references, experience and salary expected. P. 288, Eng. News.

BRIGHT YOUNG MAN wanted to act as assistant to the manager of a large suburban real estate company; must have pleasing personality and be familiar with bookkeeping and office methods and have knowledge of buildings and management of tenants; a slight knowledge of surveying and construction work desirable; excellent future for right man; state age, salary expected, etc. P. 303, Eng. News.

ENGINEER WANTED by a large manufacturing concern; must be a college graduate with some experience in handling men; mechanical training preferred but not essential; excellent opportunity for advancement. In reply state age, college, degree and salary expected. P. 304, Eng. News.

FIELD INSTRUCTOR in surveying wanted for month of June; New York district; salary $100. P. 313, Eng. News.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

LABORERS—Immigrants of any nationalities supplied at short notice at any part of the United States; camps and commissary runner; promptness and systems are our success. People's Labor Agency, 88 Baxter St., New York.

WANTED

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

WANTED ENGINEERING REPRESENTATIVES for Southern and Central States to represent the Thomas method of reinforced-concrete bridge construction. William M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

MECHANICAL SALESMAN now covering New York, New Jersey, Pennsylvania, wants negotiations; exclusive or side. W. 271, Eng. News.

SALES ENGINEER with established office would like to represent reputable manufacturer, Chicago and vicinity. W. 289, Eng. News, Chicago.

BUSINESS OPPORTUNITIES

CONSTRUCTION COMPANY (specializing concrete work), newly incorporated, offers good opportunity to man who can invest at least three thousand dollars ($3000). No triflers. Address Concrete, Room 416, 145 Nassau St., N. Y. C.

SUPERINTENDENT wanted by established general contracting company having large amount of work in hand; must be experienced in brick paving, with $3000 to $5000 to invest in new work; only gilt-edge security. Box 53, Hotel Haning, Cincinnati, Ohio.

CORRESPONDENCE COURSES

of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

FOR ENGINEERS

The personal attention of the engineer who prepared these courses is given to all the work submitted by each subscriber and therefore the membership is limited.

Two separate courses are offered, under the following designations,—

STRUCTURAL STEEL DESIGNING
REINFORCED CONCRETE ENGINEERING

These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter taken from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

and save years spent in mis-directed efforts which are a necessary result of trying to acquire experience without the direct aid and assistance of an engineer properly experienced in such work.

Address M. 180, Engineering News

TWO LETTERS

Of special interest to City Engineers and other advertisers of contracts to be let.

CITY OF CUMBERLAND
Maryland

COMMISSIONERS
T. W. Koon, M. D. Mayor
Ward M. Eichelberger
Oscar A. Eyerman
Dr. T. A. K. Hummelshime
Joseph S. Schriver

Office of
James P. Gaffney
City Engineer

April 3, 1915.

Engineering News, Hill Publishing Co.,
Tenth Avenue at Thirty-sixth St.,
New York, N. Y.

Gentlemen:

Enclosed you will find copy of advertisement which we wish to have inserted once in ENGINEERING NEWS, next issue.

We are well pleased with the result of our advertisement for bids on street pavement which we had inserted twice recently; over thirty-five prospective bidders have already applied for plans and specifications, many more than we anticipated.

Yours very truly,
(signed) James P. Gaffney,
City Engineer.

BOROUGH OF SHARON
Office of the Secretary

Claude B. Lartz, Secretary
Willsonia Building

Sharon, Pa., *April* 12, 1915.

Engineering News, New York City,

Gentlemen:

Allow me to express the appreciation of Sharon Council for the efficiency of your publication in securing bids. It has proven the best advertising medium I have found after an experience with the leading publications and I can assure you that any additional ads to be placed during my term in office will find their way to you.

I might mention in the asking for bids on a road roller, concrete mixer and heating kettles, I received 84 replies with bids. The large number of bids was a big surprise to Council.

Respectfully yours,
(signed) Claude B. Lartz,
Secretary.

For Sale
Second Hand Equipment

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

Equipment Wanted items appear at the end of this list.

N

ADVERTISERS' NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal & Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
TITAN Equipment Co., 30 Church St., N. Y. (Cort. 1111.)
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—Ingersoll-Rand H-3, 1000 Cu. Ft. Compound Steam Compound.—SAMPSON.

1—WB-2 Sullivan 909 Cu. Ft. Tandem Steam Driven Compound.—SAMPSON.

1—Rand Class "C" 527 Cu. Ft. and 2—Rand Class "C" 98 cu. ft. straight Line steam Driven.—SAMPSON.

1—Imperial XB-2, 1312 Cu. Ft. and 1—Imperial XB-2, 1190 Cu. Ft. Compound Belt Driven.—SAMPSON.

1—Ingersoll-Sergeant Class "E-1" 236 Cu. Ft. Belt Driven. —SAMPSON.

1—Blake 380 Cu. Ft. Duplex Steam Comp.; 1—Ing.-Serg. Class "F" 233 Cu. Ft. Straight Line Steam Driven.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

2 Norwalk 700 cu.ft. and 1200 cu.ft.; excellent condition. Reason for selling, mine worked out. No further use for same.—HANDY BROS. MINING CO., Bay City, Mich.

8x8" Gardner with receiver and gasoline engine on trucks. —GRIMSHAW.

BELT CONVEYORS

1—14" and 1—16" 50' centers.—GIVIN.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

2 New Marine, 10x11'; prompt delivery.—WHITNEY.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

96—42 cu.ft. Stuebner tip-over buckets.—SCHMIDT.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed.—GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

CARS

[Standard Gauge]

Flat car with derrick, 30' boom and bull wheel. House for machinery.—GRIMSHAW.

[24" Gauge]

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

12 Koppel 1¼ yd., steel V shape.—GRIMSHAW.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

1 Sturtevant, in perfect condition, used but 10 days; will sell cheap.—ARTHUR L. BATES, Meadville, Pa.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

125' boom, 35 ton cap. steel stiff leg with bull wheel; 4-section boom; removal mid-section adds capacity. Mast 75', sills 58', stiff legs spread 68'. High grade for yard or erecting work. Quick sale price.—TITAN.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

ENGINES, STEAM

Compound automatic engine, 18 and 28x20, 335 H.P. Direct connected generator, rated capacity 800 amp. 250 volts direct current. Thoroughly overhauled. Good as new. New York & Pennsylvania Co., 200 Fifth Ave., New York City.

EXCAVATORS

½ cu.yd. and up. Traction. Ideal for cellars, trenching, grading.—TITAN.

GENERATORS

Western Electric 100 K.W. dir. con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

7¼x10" Lambert 3 drum, swinger and boiler; overhauled, $700.—GRIMSHAW.

INSTRUMENTS, SURVEYING

Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

LOCOMOTIVES

[Standard Gauge]

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

40-ton Climax geared, rebuilt; like new.—DALLETT.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

15 ton excellent condition. cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

1—45 ft. 4-wheel Industrial.—WHITNEY.

4 or 8 wheel 5 to 40 ton capacities.—TITAN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day: rare bargain.—LINES FLYNN.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

Standard, ⅓ yd., gasoline engine.—DALLETT.

1—No. 66—½ Yard "Ransome" with engine and pivot charging hopper, on wheels.—L. F. SEYFERT'S SONS, Inc., 437 N. Third St., Phila., Pa.

Lakewood ⅓ yd. and Austin Cube ½ yd., both with steam engine, boiler and side loader; Ransome, either steam or gasoline, ¾ yd.—WATERLOO CEMENT MACHINERY CORP'N, South Ferry Bldg., New York, N. Y.

PILING, SHEET STEEL

5000 pcs. Lackawanna, Carnegie and Wemlinger, various lengths.—GRIMSHAW.

165 pcs. Lackawanna 14" arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

FOR SALE

Air Compressors
Blowers and Fans
Boilers
Buckets
Cars
Derricks
Drills
Electric Locomotives
Elevators
Elevator Engines
Engines
Feed Water Heaters
Generators
Grout Machines
Machine Tools
Pipe
Pumps
Oil Separators
Rails
Steel Pontoon
Turn Tables
Valves and Fittings

Harold Carpenter, Resident Engineer, Astoria Light, Heat & Power Co., East 132nd St. and Locust Ave., New York City.

Plant and Equipment for Sale

Including locomotives, gondolas, derricks, concrete mixers, rock drills, buckets, pumps, engines, elevators and conveyors. *Ask for new list with revised prices.*

ALABAMA POWER COMPANY,
Birmingham, Ala.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

300,000 rethreaded wrought, sizes ¾" to 24".—MARINE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

RAILS

40 ton of 35 lb. with fish plates.—PIPE.

20,000 ft. 24" gauge 20 lb. portable track.—SCHMIDT.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1 Tandem paving roller in excellent condition. Low price for quick sale. Write F. S. 296, Eng. News.

1—8 ton Austin gasoline, perfect condition, rare bargain.—B. G. COON CONSTRUCTION CO., 274 Union St., Luzerne, Pa.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

18-B Bucyrus traction, used few weeks; Type "O" Thew traction, Mass. boiler, prime condition.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—14B Bucyrus traction revolving ⅝ yd.—GIVIN.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

Wanted

Macadam roller at a bargain, size 10-ton. Send price and other information to W. 297, Eng. News.

8-wheel locomotive crane 15 to 30 tons cap., 35' to 50' boom, to operate grab bucket. Reply K. R. B., W. 298, Eng. News.

First-class 15-20 ton 8-wheel loco. crane.—W. 305, Eng. News.

To buy at once Wagonhorst blueprinting machine, double cylinder 42"x72".—ALAMO BLUE PRINT CO., Swearingen-McCraw Bldg., San Antonio, Texas.

FOR SALE

1—90-Ton, Model 75, Marion Steam Shovel, Shop No. 2194, Rebuilt and fitted throughout with steel cut gears.
2—40-Ton, Saddle Tank, Standard Gauge, American Locomotives.
10—16-Yard, All Steel. K. & J. Air Dump Cars.
1—Oliver Spreader Car.
1—50-HP. General Electric Motor.

The above equipment is located at Rochester, N. Y.
Was bought new and used less than two years.

Prices and details on application.

—Address—

LANE BROS. Limited

c/o Box 154
St. Catharines, Ontario

Lining Up with the Money Makers

Dull times necessitate closer figuring on every contract. That's why you see long lines of

WESTERN DUMP WAGONS

on jobs where any old wagon used to do before.

They pull easy—they dump easy—they stand up under the load—and **they save money** for the contractor.

We want to prove it to you. Ask for full details today.

Western Wheeled Scraper Co.

Aurora, Illinois

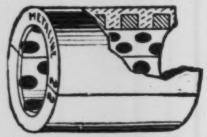
Air Dump Cars—Hand Dump Cars—Spreader Cars—Scrapers—Road Machinery—Portable Rock Crushers—Dump Wagons—Elevating Graders, Wagon Loaders and Ditchers

FOR SALE

An IROQUOIS Portable Asphalt Plant

has only mixed 6,000 yards. Capacity of 1,000 square yards per day. As good as new. Sold on account of retiring from paving business. For information and inspection write to

John Donahoe, General Contractor, Mahanoy City, Pa.


PLAIN BUSHINGS
made in halves

METALINE
(Trade Mark Reg.)
BUSHINGS for HOISTING SHEAVES
excel all other types for durability under heavy loads, and hard service.
OILLESS
THE METALINE COMPANY
Sole Manufacturers
6 West Avenue Long Island City, N. Y.

WOODEN ROLLERS

Manufactured from Selected Black Gum

For Moving Excavators—Buildings—Piledrivers.

O. O. OGDEN
613 Roumain Bldg. Baton Rouge, La.

WE LOOK INTO THE EARTH

by using diamond core drills. We test foundations for dams, bridges, and buildings and prospect coal and ore land.

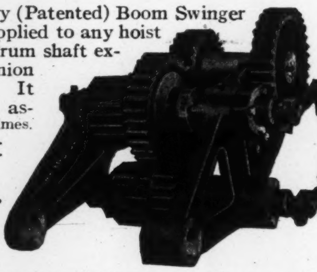
THE PENNSYLVANIA DRILLING CO.
formerly **The J. A. Brennan Drilling Co.**

No. 30 Carson St.
Pittsburgh, Pa.
Phone, Hemlock 305

2623 Whitehall Bldg.
New York
Phone, Rector 993.

A New Boom Swinger Attachment for

FLORY HOISTS



This new Werner-Flory (Patented) Boom Swinger attachment may be applied to any hoist by having the front drum shaft extended so that a pinion can be fastened on it. It is easily operated and assures positive action at all times.

It will pay you to investigate. Write for details today. Catalog 25.

S. Flory Mfg. Co.
Bangor, Pa.
Also Manufacturers of Cableways, Derricks and Dredging machinery.

DERRICKS **CABLEWAYS**

JOHN T. HORTON, M. E.
92 West St., New York

Specialist in
Hoisting Equipment

CONTRACTING ENGINEERS

STEEL AND MASONRY CONSTRUCTION
PIERS AND SHEDS COALING PLANTS

Cable Address, Santee New York.
Cable Address, Pawnee Havana.
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Havana Office, Zulueta 36 D.

THE SNARE AND TRIEST COMPANY
Woolworth Building, 233 Broadway New York

Conveying
Elevating
Transmission
Machinery

Coal and Ash Handling
Chain and Sprockets
Sand and Gravel Washing
Contractors' Equipment
Rotary and Shaking Screens

The Webster M'f'g Company, Chicago New York **Tiffin, O.**

ROBINS CONVEYING MACHINERY

Our bulletins describe the successful solution of many materials-handling problems. Let them help you.

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Spokane, United Iron Works.
New Glasgow, Eastern Steel Co., Ltd., London, E. C., Fraser & Chalmers, Ltd.

Your Idle Machinery

or plant, or tools for which you have no present use might be sold or rented to some other reader through the medium of a "For Sale or Rent" advertisement in Engineering News.

Rates on Application

Contracts to Be Let

Bids received until June 24, 1915.

Reduction Plant

Detroit, Mich.

Sealed proposals for the erection and completion of Reduction Plant on the Northeast side of the Detroit Terminal Railroad, between Shoemaker and Harper Aves., addressed to the Department of Public Works, will be received at the office of the Commissioner, City Hall, Detroit, until 10:00 A.M. on the 24th day of June, 1915.

Each proposal shall include the entire building work and plumbing, consisting of the following:

Masonry
Stone
Cement Tile
Steel and Iron
Steel sash
Marble & Terrazzo
Lathing & Plastering
Carpentry
Roofing and Sheet Metal Work
Painting
Glazing
Plumbing

Each bid shall be accompanied by a certified check in the sum of Four Thousand ($4000.00) Dollars as surety for the acceptance of the contract, payable on its face to the Department of Public Works of the City of Detroit.

The accepted bidder will be required to furnish two bonds each in a sum equal to the full amount of the contract.

Proposals shall be made in accordance with the plans and specifications prepared by Smith, Hinchman & Grylls, on file in their office, copies of which may be secured upon application.

The plans and specifications are the property of the Architects and a deposit of $20.00 will be required for the safe return of each set taken away by Bidders. Plans and specifications shall be returned and if same are in good and usable condition the deposit will be returned to the Bidder.

The Commissioner reserves the right to reject any or all proposals, and to waive all informalities therein.

GEO. H. FENKELL, Commissioner.

⁂

Bids received until June 4, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at one o'clock p.m. on Friday, the 4th day of June, 1915, for the construction and repair of highways in the following counties: Albany, 3 highways (3.41; 5.76; 4.20), 2 contracts (resurfacing); Cattaraugus, 1 highway (4.29); Cayuga, 1 contract (broken stone); Chemung, 1 highway (8.98); Dutchess, 1 contract (surface treatment); Essex, 2 highways (3.31; 0.52); Jefferson, 1 highway (4.60); Monroe, 2 highways (8.39; 1.51); Niagara, 1 contract (broken stone); Oneida, 1 highway (7.76), 2 contracts (resurfacing), 1 contract (surface treatment); Orange, 1 highway (6.27); Orleans, 3 highways (2.87; 7.46; 0.17); Oswego, 2 highways (7.75; 5.12), 1 contract (resurfacing); Rensselaer, 1 contract (surface treatment); St. Lawrence, 1 highway (5.66); Schenectady, 1 contract (resurfacing); Schuyler, 2 highways (8.98; 7.60); Seneca, 1 contract (broken stone); Tompkins, 1 highway (7.60); Wayne, 1 contract (broken stone).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose divisions the roads are to be constructed or repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders' in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.

I. J. MORRIS, Secretary.

Bids received until July 12, 1915.

County Highway Tunnel

OFFICE OF THE CONTROLLER OF ALLEGHENY COUNTY.

Pittsburgh, Pa., June 1st, 1915.

Sealed proposals will be received at this office until 1:30 o'clock P.M., Monday, July 12th, 1915, and will at that time be publicly opened by the County Commissioners, for the construction of a tunnel and the approaches thereto, known as "County Highway Tunnel No. 1," extending from the southerly side of East Carson Street near Third Street, Pittsburgh, in a southerly direction to a point on Warrington Avenue, near Boggs Avenue, Pittsburgh, Pa. The proposals submitted must be on the blank form of proposals which are bound with the contract, specifications and information for bidders, and must be addressed to the County Commissioners of Allegheny County, Pennsylvania, and deposited with the County Controller, marked "Proposal for County Highway Tunnel No. 1." Proposals must be accompanied by a certified check in the sum of One Hundred Fifty Thousand ($150,000.00) Dollars, made payable to the Commissioners of Allegheny County, to be returned to the unsuccessful bidders three days after the awarding of the contract. Within ten (10) days after receiving final notice of the awarding of the contract, the successful bidder will be required to execute the contract and furnish a proper surety bond, satisfactory to and to be approved by the County Commissioners, in the sum of Fifty (50%) per centum of the amount of the contract price, conditioned for the faithful performance of all the terms and provisions of the contract.

Copies of the form of proposal, contract and information for bidders and copies of the plans and specifications may be obtained at the office of A. D. Neeld, Consulting Engineer for the County of Allegheny, at No. 237 Fourth Avenue, Pittsburgh, and at the office of the County Commissioners, Court House, Pittsburgh, Pa., on and after June 7th, 1915. Those desiring to bid may have plans and specifications upon the deposit of Twenty-five ($25.00) Dollars, which will be refunded if said plans and specifications are returned in good condition within ten (10) days after the bids have been received and acted upon by the County Commissioners.

The County Commissioners reserve the right to reject any and all bids.

HYATT M. CRIBBS,
County Controller for the County of Allegheny.

⁂

Bids received until June 15, 1915.

Greenhouses for Executive Mansion

Albany, N. Y.

Sealed proposals, Construction Work for Greenhouses, for the New York State Executive Mansion, Albany, N. Y., will be received by the Trustees of Public Buildings at the Capitol, Albany, N. Y., until 4 o'clock P.M. on Tuesday, June 15, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of $75.00 for Proposal No. 1 and $225.00 for Proposal No. 2. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 2277. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

Bids received until June 15, 1915.

Street Improvements

DEPARTMENT OF PUBLIC WORKS.

Philadelphia, Pa.

Sealed proposals will be received until 12 o'clock, noon, on Tuesday, June 15th, 1915, for, and opened at that time in Room 225, City Hall:

Improvement of the Northeast Boulevard and Branches, from Rhawn St. northward.

Estimated quantities of the principal items of work to be done are as follows:

Grading	232,605 cu.yds.
Bituminous Pavement	58,457 sq.yds.
Sewers	7,257 lin.ft.
Vitrified Block Paving	9,220 sq.yds.
Concrete Curb	17,490 lin.ft.
Concrete Footways	10,915 sq.yds.
Topsoil	72,000 sq.yds.
Electrical conduits	3,000 lin.ft.
Trees and Shrubs	2,400

Together with the necessary incidental work.

A charge of five (5) dollars will be made for each set of specifications and drawings, which will be refunded upon the return of the unused specifications and drawings in good condition, or upon the return of the drawings in case a bid is submitted.

Inquire at Room 232, City Hall, Philadelphia.

M. L. COOKE, Director.

⁂

Bids received until June 9, 1915.

Electric Traveling Cranes, etc.

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans, at their office, Suite 200, New Orleans Court Building, until June 9th, at 8 o'clock P.M., and then be publicly opened, for the furnishing and erecting of fifteen (15) or more Electric Traveling Cranes, two (2) Transfer Cranes, and one Crane Transfer and Elevator, for the Cotton Warehouses and Terminal, located on the east bank of the Mississippi River between Valence and Soniat Streets.

Deposit required with proposal $3,000.

Bond required with contract $20,000.

On and after May 22nd, plans and specifications will be on file at the office of Ford, Bacon & Davis, 921 Canal Street, New Orleans, La., where full sets will be furnished to prospective bidders on a deposit of $25.000, which will be refunded to bidders who submit proposals. $15.00 will be refunded to bidders who do not submit proposals.

The right is reserved to reject any and all bids.

ERNEST M. LOEB, President.

⁂

Bids received until June 14, 1915.

Concrete Pavement

Sault Ste. Marie, Mich.

Sealed proposals will be received by the Board of Public Works, Sault Ste. Marie, Mich., not later than 4 P.M., Monday, June 14th, 1915, and then publicly opened, for the construction, in accordance with the plans and specifications on file at the office of Ross A. Frederick, City Engineer, of a bituminous coated concrete pavement on Portage Avenue between Bingham Avenue and the Portage Avenue Bridge, consisting of approximately 12,000 sq.yds. of pavement with the adjacent curbs and approaches.

All bids are to be accompanied by a certified check in the amount of 5% of the pavement bid, which check of the successful contractor will be retained by the Board until after the execution of the contract.

The right is reserved to reject any or all bids.

BOARD OF PUBLIC WORKS.

A. J. EATON, Secy.

⁂

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., May 21, 1915.—Sealed proposals will be opened in this office at 3 p.m., July 2, 1915, for the construction complete (including mechanical equipment and approaches) of a two-story and basement stone and brick-faced building of 17,000 square feet ground area, fireproof construction, composition and copper roof, for the United States post office and courthouse at Charlotte, N. C. Drawings and specifications may be obtained from the custodian of the site at Charlotte, N. C., or at this office, in the discretion of the Acting Supervising Architect. JAS. A. WETMORE, Acting Superv. Architect.

Bids received until June 16, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS,

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. on Wednesday, June 16th, 1915, for the improvement of highways in the following counties:

Broome, 2 highways (0.68; 2.32); Delaware (approx. length 2.50); Fulton (approx. length 4.58); Hamilton, 2 highways (4.22; 4.54; Lewis (approx. length 6.86); Monroe, 2 highways (4.54; 6.05); Niagara, 4 highways (1.32; 4.42; 2.33; 5.07); Herkimer (approx. length 8.89); Oneida (approx. length 8.89); Onondaga, 3 highways (3.06; 7.23; 1.91); Orleans, 2 highways (2.46; 1.80); Rensselaer, 2 highways (0.34; 0.88).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the offices of the Division Engineers in whose divisions the roads are to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especal attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.

IRVING J. MORRIS, Secretary.

⁂

Bids received until June 9, 1915.

Return Tubular Boilers, etc.

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans, at their office, Suite 200, New Orleans Court Building, until June 9th, at 8 o'clock P.M., and then be publicly opened for furnishing and installing three horizontal return tubular boilers, with settings, breeching and appurtenances to be installed in the Cotton Warehouses and Terminal, located on the east bank of the Mississippi River between Valence and Soniat Streets.

Deposit required with proposal $500.00.

Bond required with contract $3,000.00.

On and after May 22nd, plans and specifications will be on file at the office of Ford, Bacon & Davis, 921 Canal Street, New Orleans, La., where full sets will be furnished to prospective bidders on a deposit of $25.00, which will be refunded to bidders submitting proposals. To bidders who do not submit proposals, $15.00 will be refunded.

The right is reserved to reject any and all bids.

ERNEST M. LOEB, President.

⁂

Bids received until June 8, 1915.

Sheet Asphalt Paving

Rahway, N. J.

Sealed proposals will be received by the Common Council of the City of Rahway, N. J., Tuesday evening, June 8th, at 8 o'clock, at the City Hall, for the paving of Milton avenue, from the Pennsylvania Railroad to St. Georges avenue, with sheet asphalt pavement. Approximate amount of work to be done:

Excavate present surface of street to subgrade.

Lay 10,270 sq.yds. of sheet asphalt pavement on 6 inch concrete foundation.

Reset 5311 lin.feet of curb in concrete.

A certified check for $1000.00 to accompany each bid, payable to "The Mayor and Common Council of the City of Rahway."

The Common Council reserves the right to reject any or all bids.

FRANKLIN MARSH, City Engineer.

Rahway, N. J., May 24th, 1915.

⁂

TREASURY DEPARTMENT, U. S. Coast Guard, Washington, D. C., May 28, 1915.—Sealed proposals will be received at this office until 2 o'clock p.m. of Tuesday, June 15, 1915, and then publicly opened, for the construction of a Coast Guard station and accessories and moving present building, at Oswego, New York. Specifications and drawings, form of proposal, etc., and full information can be obtained upon application to the Superintendent, Tenth District, Coast Guard, Buffalo, New York; the Keeper, Oswego Coast Guard Station, Oswego, New York; or to this office. E. P. BERTHOLF, Captain Commandant.

Contractors

BIDS OPENED JUNE 15, 1915,

for the construction of Section No. 1 of Route No. 29, being a part of the Eastern Parkway Rapid Transit Railroad. (Nostrand Ave. branch.)

A two-track underground railroad in the Borough of Brooklyn, beginning at a point under Eastern Parkway about 192 ft. west of Nostrand Ave. and running thence under Eastern Parkway and Nostrand Ave. to a point about 220 ft. south of Church Ave.

Write or call concerning form of contract, plans and specifications.

PUBLIC SERVICE COMMISSION FOR THE FIRST DISTRICT,
154 Nassau St., New York City.

⁂

Bids received until June 25, 1915.

Water-works Elevated Water Tower

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO.

City of Stratford, Ontario, Canada.

Specifications for a 500,000 Imperial gallon elevated water tower will be issued on Friday, June 4th, and Sealed Tenders, mailed to the undersigned, and marked "Tender for Stratford Elevated Water Tower," will be accepted until 9 a.m. on Friday, June 25, 1915. Copies of the above specifications, and form of tender, can be obtained from the address given below. The lowest or any tender will not necessarily be accepted.

F. A. GABY, Chief Engineer,
Hydro-Electric Power Commission of Ontario,
Continental Life Building, Toronto, Ontario.

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U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., May 5, 1915.—Sealed proposals for excavation of Earth and Rock, U. S. Power Plant Tail Race, St. Marys River, Mich., will be received at this office until 12 M., June 15, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, Room 305 Southern Building, Washington, D. C., May 27, 1915.—Sealed proposals for furnishing and delivering 300 tons, 25% more or less, Sulphate of Alumina will be received here until 12 M., June 26, 1915, and then publicly opened. Information on application.

PROPOSALS FOR REPAIRS, SOUTH DOCK, ETC.—Office Quartermaster, West Point, N. Y.—Sealed proposals will be received here until 12 M., June 30, 1915, and then opened, for reconstruction and repairs to South Dock and Ferry Slip. Further information application.

U. S. ENGINEER OFFICE, Newport, R. I., May 29, 1915.—Sealed proposals for rebuilding basin walls and repairing breakwaters and harbor walls at harbor at Block Island, R. I., will be received here until 12 o'clock noon, June 29, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

PROPOSALS FOR LEVEE WORK—Office of the Secretary, Mississippi River Commission, 1311 International Life Building, St. Louis, Mo.—Sealed proposals will be received here until 11 a.m., June 17, 1915, for constructing about 175,000 cubic yards of earthwork in the East Side Levee and Sanitary District, Ill. Further information on application.

FORT HUACHUCA, Ariz., May 8, 1915.—Sealed proposals, in triplicate, will be received here until 1 P.M., June 9, 1915, and then opened, for furnishing all materials, machinery and labor required in constructing complete an electric light and refrigerating plant and installing interior and exterior wiring system. $10 deposit required for plans and specifications. For information address CONSTRG. QUARTERMASTER.

U. S. ENGINEER OFFICE, Louisville, Ky., May 4, 1915.—Sealed proposals for furnishing and erecting one Mitering Guard Gate of two leaves, for Lock No. 41, Ohio River, will be received here until 12 noon, Central time, June 4, 1915, and then publicly opened. Information on application. J. C. OAKES, Maj., Engrs.

U. S. ENGINEER OFFICE, Newport, R. I., May 12, 1915.—Sealed proposals for rebuilding wharves and building new sea wall and coal house, at U. S. Bureau of Fisheries Station at Woods Hole, Mass., will be received here until 12 o'clock, noon, June 12, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

U. S. ENGINEER OFFICE, Newport, R. I., May 17, 1915. Sealed proposals for dredging in the harbor of refuge at Block Island, R. I., will be received here until 12 o'clock, noon, June 16, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

Bids received until June 14, 1915.

Sewer

Greenwich, Conn.

Sealed proposals will be received by the SEWER COMMISSIONERS of the Town of Greenwich, Connecticut, at their Office in the Town Building until eight o'clock P.M., on MONDAY, JUNE 14th, 1915, for constructing about 22,500 feet of SEWER in various Streets of Sewer District No. 9, East Port Chester Section.

Plans and Specifications can be seen at the Office of the Engineer, Mr. S. E. Minor, Room No. 5, Greenwich Trust Company Building, No. 96 Greenwich Avenue, or the Sewer Commissioners' Office, Room No. 2, Town Building, Greenwich Avenue. The right is expressly reserved to reject any or all bids.

WILLIAM WILSON HEATON,
ISAAC M. HUBBARD,
ALBERT C. PECK,
Sewer Commissioners of the Town of Greenwich, Connecticut.

Dated Greenwich, Connecticut, May 26th, 1915.

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Bids received until June 21, 1915.

Steam Pumping Machinery

Salem, Massachusetts.

Sealed proposals will be received by the Director of Public Works of the City of Salem, Mass., until 10 A.M., June 21, 1915, for furnishing and erecting two 10,000,000 gallon steam pumps with the necessary appurtenances.

Specifications and other information may be obtained at the office of William S. Johnson, Consulting Engineer, 101 Tremont St., Boston, Mass.

The right is reserved to reject any or all bids.

P. J. KELLEY, Director of Public Works.
GEORGE F. ASHTON, City Engineer.

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PROPOSALS FOR COAL.—U. S. Engineer Office, Wilmington, N. C.—Sealed proposals will be received here until 12 M., June 28, 1915, and then opened for furnishing about 13,000 tons of bituminous coal. Further information on application.

U. S. ENGINEER OFFICE, Room 707, Army Building, 39 Whitehall St., New York, N. Y.—Sealed proposals will be received here until 12 M., June 28, 1915, and then opened, for dredging in Newtown Creek, N. Y. Further information on application.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich.—Sealed proposals for furnishing and delivering at Sault Ste. Marie, Michigan, about 325 tons of steel, etc., for construction of Fourth Lock, will be received at this office until 12 noon, June 30, 1915, and then publicly opened. Information on application.

PROPOSALS FOR DREDGING.—U. S. ENGINEER OFFICE, 815 Witherspoon Bldg., Philadelphia, Pa.—Sealed proposals will be received here until 12 NOON, JUNE 21, 1915, and then opened, FOR DREDGING IN DELAWARE RIVER, opposite Port Richmond coal piers, Philadelphia harbor. FURTHER information on application.

FORT SILL, OKLA., May 15, 1915.—Sealed proposals in triplicate will be received here until 11 A.M., June 15, 1915, for constructing Quartermaster Corps Barrack, double set engineer's quarters magazine, additions to 4 barrack buildings, 5 stables, repairing 9 double officers quarters, 3 barrack buildings, band barrack, shops and coal houses. Information on application. CONSTRUCTING QUARTERMASTER.

U. S. ENGINEER OFFICE, Savannah, Ga., May 21, 1915.—Sealed proposals for repairs to bank protection of Savannah River at Augusta, Ga., will be received at this office until 12 noon (Eastern Standard Time), June 21, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Colonel, Engineers.

U. S. ENGINEER OFFICE, Room 707, Army Building, 39 Whitehall St., New York, N. Y.—Sealed proposals will be received here until 12 M., June 25, 1915, and then opened, for furnishing and placing riprap and repairing sea wall at Governors Island, N. Y. Further information on application.

PROPOSALS FOR STRUCTURAL METAL—U. S. Engineer Office, Vicksburg District, Vicksburg, Miss.—Sealed proposals will be received here until 12 m., June 15, 1915, and then opened, for furnishing steel lock gates, valves, Poiree trestles, operating machinery, etc., aggregating about 450,000 pounds. Further information on application.

Bids received until June 22, 1915.

Coagulating Plant

SEALED BIDS will be received by the Board of Water Supply, at its offices, twenty-second floor, Municipal Building, Park Row, Centre and Chambers Streets, New York City, until 11 A.M., on Tuesday, June 22, 1915, for Contract 159, for the construction of a coagulating plant in the Town of Mt. Pleasant, Westchester county, New York. The structure will be of steel, about 26 feet wide by 67 feet long, inside of which will be a steel bunker for storing about 600 tons of sulphate of alumina and a conveyor for raising the material to this bunker.

At the above place and time the bids will be publicly opened and read. Pamphlets containing information for bidders, and contract drawings can be obtained at the above address, at the office of the Secretary, by depositing the sum of ten dollars ($10) in cash or its equivalent for each pamphlet. For further particulars apply to the office of the Principal Assistant Engineer at the above address.

CHARLES STRAUSS, President,
CHARLES N. CHADWICK,
JOHN F. GALVIN,
Commissioners of the Board of Water Supply.
W. BRUCE COBB, Secretary.

⁂

Bids received until June 16, 1915.

Building Improvements

Brooklyn, N. Y.

Sealed proposals for Construction Work—Rebuilding Old Wall in Main Building at the Long Island State Hospital, Brooklyn, N. Y., will be received by the State Hospital Commission at the Capitol, Albany, N. Y., until 2:30 o'clock P.M. on Wednesday, June 16, 1915, when they will be opened and read publicly.

Proposals shall be accompanied by certified check in the sum of $200.00 and the Contractor to whom the award is made will be required to furnish surety company bonds in the sum of 50% of the amount of contract within thirty days after official notice of award of contract, and in accordance with the terms of specification No. 2201.

Drawings and specifications may be consulted and blank forms for proposal obtained at the Long Island State Hospital, Brooklyn, N. Y., or at the office of the State Architect. Complete sets of plans and specifications will be furnished prospective bidders upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

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OFFICE OF THE COMMISSIONERS, D. C., June 1, 1915.—SEALED PROPOSALS will be received at this office, Room 509 District Building, until 2 o'clock P.M., on June 10, 1915, for the construction of Section 4 of Anacostia Main Interceptor, in the District of Columbia, involving the construction of about 3,000 linear feet of trunk sewer 4′ 6″ x 5′ 0″. Forms of proposals, specifications and necessary information may be obtained from the Chief Clerk, Engineer Department, Room 427 District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

Bids received until June 10, 1915.

Sewers and Disposal Plant

Montrose, Pa.

Sealed proposals will be received by the Borough Council of Montrose, Pa., until 7:30 P.M. of June 10, 1915, at the office of H. A. Denny, Borough Solicitor, for constructing about one-half (½) mile of sanitary sewers, concrete treatment tanks, etc.

Deposit of Ten Dollars ($10.00) required on plans and specifications.

Plans, proposal, detailed instructions to bidders, and specifications may be obtained from F. H. Shaw, Consulting Engineer, 308 Breneman Bldg., Lancaster, Pa.

The right to reject any or all bids is reserved.

A. J. WHEATON, Secretary of Council.
F. H. SHAW, Consulting Engineer.

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DEPARTMENT OF THE INTERIOR, U. S. RECLAMATION SERVICE, Washington, D. C., May 28, 1915.—Sealed proposals will be received at the office of the United States Reclamation Service, Great Falls, Montana, until 2 o'clock P.M., July 1, 1915, for the construction of canals and structures on the Sun River Project, Montana, involving about 455,000 cubic yards of excavation, about 4,290 cubic yards of reinforced concrete, the manufacture and laying of about 4,560 linear feet of concrete pipe, and the placing in wooden structures of about 265,000 feet B.M. of lumber. The work is situated about twenty-five miles northwest of Great Falls, Montana, and about three miles south of the towns of Bole, Sloan and Codrova, Montana, stations on the Choteau Branch of the Great Northern Railway. For porticulars address the United States Reclamation Service, Washington, D. C.; Great Falls, Mont., or Fort Shaw, Mont. A. P. DAVIS, Chief Engr. Engineer.

PROPOSALS FOR STEEL HIGHWAY BRIDGE ACROSS THE COLORADO RIVER.—Department of the Interior, Office of Indian Affairs, Washington, D. C., May 25, 1915.—Sealed proposals plainly marked on the outside of sealed envelope, "Proposals for steel highway bridge across the Colorado River near Topock, Arizona, and addressed to the Commissioner of Indian Affairs, Washington, D. C., will be received at the Indian Office until 2:00 P.M., June 19, 1915, for furnishing materials and labor for the construction of a steel highway bridge across the Colorado River at or near Topock, Arizona, in strict accordance with plans, specifications, and instructions to bidders, which may be examined at the office of the paper or periodical in which this advertisement appears, at United States Indian Warehouses at Chicago, Illinois, St. Louis, Missouri, and San Francisco, California, and at the office of the Superintendent of the Fort Mojave School, post office address, Mojave City, Arizona. For further information apply to the Superintendent of Fort Mojave School. CATO SELLS, Commissioner.

PROPOSALS FOR CONCRETE SUPERSTRUCTURE.—U. S. Engineer Office, Buffalo, N. Y.—Sealed proposals will be received here until 11 a.m., June 23, 1915, and then opened, for construction of concrete superstructure on outer breakwater at Oswego Harbor, N. Y. Further information on application.

U. S. ENGINEER OFFICE, Cincinnati, O., May 26, 1915.—Sealed proposals for building a Power House at Dam No. 29, Ohio River, near Ashland, Ky., will be received here until 2 p.m., June 15, 1915, and then publicly opened. Information on application. H. JERVEY, Lt.-Col., Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, Columbia graduate, some outside experience, desires position in engineering or manufacturing line offering opportunities. Location and salary immaterial. P. W. 314, Eng. News.

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 326, Eng. Nenws.

Civil Engineers

WATER-SUPPLY, water power, dams, sewers; responsible charge, construction and design; present engagement soon terminates; age 34; Assoc. M. Am. Soc. C. E. P. W. 224, Eng. News.

CIVIL ENGINEER, Assoc. M. Am. Soc. C. E. desires position; 8 years' experience on the design of foundations and reinforced concrete bridges and buildings. Expert computer of arch stresses. P. W. 264, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT; 12 years continuous charge of engineering and construction work, mostly railroad; reinforced concrete a specialty; designing, estimating, etc.; experience in municipal work; executive ability; legal training; business education; references; moderate salary; just finished some work in Canada and available at any time for any location. For list of special training and experience. P. W. 260, Eng. News, Chicago

CIVIL ENGINEER; 28, single, American, technical, railroad location, design and construction, hydro-electric, water works, subways, tunnels, reports and estimates; tropics and north, speak Spanish. P. W. 261, Eng. News.

CIVIL ENGINEER, technical graduate, Member Am. Soc. C. E.; 16 years' experience in construction and design especially waterworks and highways; speaks and writes Spanish; free after June 1. P. W. 267, Eng. News.

CIVIL ENGINEER, graduate, Assoc. M. Am. Soc. C. E., 15 years' experience, responsible charge general construction, railroads and municipal improvements, surveys, expert computer, have instruments. P. W. 284, Eng. News.

GRADUATE CIVIL ENGINEER, 32, eight years' varied experience, construction and surveying, desires position with engineer, contractor or industrial company in vicinity of New York; moderate salary; have instruments. P. W. 310, Eng. News.

GRADUATE CIVIL ENGINEER, 13 years' experience in all classes of steel structures, bridges and subways; shop drawings, estimating and designing, past 10 years with leading bridge company, desires change. P. W. 301, Eng. News.

CONSTRUCTION CIVIL ENGINEER; six years' practical experience as erector on steel and industrial plant work, buildings, furnaces, machinery, steel, brick, concrete and excavation wants to make change. Will consider sales force, no experience. P. W. 309, Eng. News.

CIVIL ENGINEER, Assoc. Mem. A. S. C. E., 18 years' experience, municipal roads, bridges, reinforced concrete. Complete outfit, both office and field. References. P. W. 329, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER with much experience in topography desires employment of any kind in civil engineer line. P. W. 330, Eng. News, Chicago.

CIVIL ENGINEER, graduate with high reference, twenty years' experience surveys, design, construction, railways, bridges, tunnels, foundations and hydraulic works open to engagement. P. W. 307, Eng. News.

GRADUATE CIVIL ENGINEER, desires position; two years field and office work rodman. Salary and location no object. P. W. 325, Eng. News.

CIVIL ENGINEER—Ten years' experience. Five years in charge. Technically educated. First class references and connections. Owing field and office outfit. Wants work, with or without equipment. Railroad, dams, water power. Locality no object. Correspondence invited. Foreign work by contract engagement. P. W. 323, Eng. News.

CIVIL ENGINEERING GRADUATE, some experience on structural design and four years on machine construction wants work for few hours a day. P. W. 315, Eng. News.

CIVIL ENGINEER, graduate; six years' experience with engineers and contractors; railroads, sewers, power plants, subways. P. W. 317, Eng. News.

CIVIL ENGINEER, 26, graduate in Europe, wants position as a volunteer, construction work or office. P. W. 319, Eng. News.

STRUCTURAL ENGINEER, present employed as chief engineer by firm doing both structural steel and reinforced-concrete work, desires another position; thoroughly competent designer; extensive sales experience; prefer position on Pacific Coast, but will consider any location. P. W. 320, Eng. News, Chicago.

Draftsmen

STRUCTURAL DRAFTSMAN, 25; 6 years' experience designing checking and detailing buildings and miscellaneous structures, technical graduate. P. W. 331, Eng. News.

STRUCTURAL DRAFTSMAN; M. I. T. graduate; first-class detailer; 2½ years with leading New York firm. Box 85, Barnstable, Mass.

Superintendents, Etc.

ESTIMATOR, building construction, reliable and quick in quantities, over 10 years' experience, good draftsman, can prepare details on wood and steel, etc., specialist in reinforced concrete, graduated civil engineer, 34, married, wants position; moderate salary. P. W. 253, Eng. News.

SUBMARINE DIVER, 12 years' experience in bridge work, coffer-dams and general under-water repairs seeks position with reliable contracting firm, permanent or temporary employment. P. W. 276, Eng. News.

WANTED TO REPRESENT MANUFACTURER in New York territory, by man well acquainted with the pump and power-plant field; several years successfully representing a prominent firm. Address A, Room 322-E, 30 Church St., New York City.

MINING ENGINEER. The undersigned is open for engagement, is a graduate of School of Mines, Columbia University, has had 23 years experience in mining and mechanical lines; as mine surveyor, engineer and superintendent; as designing, constructing and manufacturing engineer; as instructor and college professor. Edward B. Durham, 2227 Ward St. Berkeley, Calif.

GRADUATE ENGINEER, 6 years' experience railway, drainage and municipal work; last 3½ years as assistant superintendent, charge of production and time study and price rate department of large agriculture implement factory, open for engagement July 1. P. W. 324, Eng. News.

ESPECIALLY RELIABLE ENGINEER and good hustler on construction work with cost accounting and computing experience. P. W. 318, Eng. News.

CARPENTER FOREMAN or superintendent of construction; recently in charge of 700 men on carpenter and concrete work; experienced in building and miscellaneous contracting work; A-1 references; location immaterial. P. W. 321, Eng. News.

A GOOD OPPORTUNITY is offered firm of high standing to secure the services of a mechanical engineer who has been engaged for several years in designing and manufacturing a well known line of special goods used largely in structural work; he controls some valuable patents covering these goods and can furnish some capital; highest references and full particulars to principals who mean business. Address Success, P. W. 327, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER having successfully filled positions as designer, draftsman in charge, and assistant engineer, open for engagement. Can handle correspondence, some experience selling, fair knowledge shop and erection costs. Age 34. Reference from present employer covering 12 years. Could invest small amount. P. W. 332, Eng. News.

STRUCTURAL ENGINEER, Experienced designer, good executive, accustomed to handling men desires position as engineer or in charge of work; excellent references from past and present employers. P. W. 316, Eng. News.

POSITIONS OPEN

SHOP FOREMAN by a large steel fabricating plant in the Middle West. State experience and salary expected. P. 282, Eng. News, Chicago.

DRAFTSMAN; applicant must submit samples and be first-class letterer; technical graduate preferred. Edgar S. Closson, Town Engineer, Montclair, N. J.

Civil-Service Opportunities

Competitive examinations for the civil-service positions named below will be held on or up to the dates given. For detailed information, write the addresses specified.

JUNIOR RAILWAY CIVIL ENGINEER (Male), Grade 1, $1200-$1680; Grade 2, $720-$1080; examination June 23; for vacancy in the Interstate Commerce Commission, Washington, D. C., or vacancies as they occur in other positions requiring similar qualifications; write to the United States Civil Service Commission, Washington, D. C., for Circular No. 462 and Application Form No. 2039.

MARINE-ENGINE DRAFTSMAN FOR SUBMARINES (Male), $4-$5.04 per diem; examination June 23-24; for vacancy in the office of the inspector of machinery, Electric Boat Co., Groton, Conn., or vacancies as they occur in other positions requiring similar qualifications; write to the United States Civil Service Commission, Washington, D. C., for Circular No. 330 and Application Form No. 1312.

ELECTRICAL ENGINEER AND DRAFTSMAN (Male), $1200; examination June 23-24; for vacancy in the office of Supervising Architect, Treasury Dept., Washington, D. C.; or vacancies as they occur in other positions requiring similar qualifications; write to the United States Civil Service Commission, Washington, D. C., for Circular No. 461 and Application Form No. 1312.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

ARCHITECTURAL DRAFTSMAN wanted, experienced. The Kansas City Engineering Agency, 323 Midland Bldg., Kansas City, Mo.

TECHNICAL and SCIENTIFIC TEACHERS, instructors and professors wanted for colleges and universities for next school year. If you desire first consideration and best results, file your application with our Educational Department now. H. H. Harrison & Co., 807 Association Bldg., Chicago.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

LABORERS—Immigrants of any nationalities supplied at short notice at any part of the United States; camps and commissary runner; promptness and systems are our success. People's Labor Agency, 88 Baxter St., New York.

LABORERS SUPPLIED for all kinds of construction work. Felice Cacace, 267 New Main St., Yonkers, N. Y.

WANTED

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

WANTED ENGINEERING REPRESENTATIVES for Southern and Central States to represent the Thomas method of reinforced-concrete bridge construction. William M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

MECHANICAL SALESMAN now covering New York, New Jersey, Pennsylvania, wants negotiations; exclusive or side. W. 271, Eng. News.

CHICAGO SELLING REPRESENTATIVES having wide acquaintance with architects, engineers and contractors will undertake to secure business for a manufacturer of undoubted stability, whose products and materials are used in building construction and construction work. Supply full details to W. 322, Eng. News.

BUSINESS OPPORTUNITIES

CONSTRUCTION COMPANY (specializing concrete work), newly incorporated, offers good opportunity to man who can invest at least three thousand dollars ($3000). No triflers. Address Concrete, Room 416, 145 Nassau St., N. Y. C.

COOPER UNION, New York City

The Free Day School of Technical Science offers four year courses in Civil, Mechanical and Electrical Engineering. Entrance examinations in Algebra and Geometry.

Preference given to applicants who have had practical experience in shops, power plants, draughting rooms or field work. Announcements mailed upon application.

FOR SALE—Civil engineering and surveying business; established many years; instrument, maps and valuable data; in Greater New York; an opportunity in a lifetime for a competent live man. Apply to Wray & Pilsbury, 50 Park Place, Manhattan.

CORRESPONDENCE COURSES

of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

FOR ENGINEERS

The personal attention of the engineer who prepared these courses is given to all the work submitted by each subscriber and therefore the membership is limited.
Two separate courses are offered, under the following designations,—

STRUCTURAL STEEL DESIGNING
REINFORCED CONCRETE ENGINEERING

These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter taken from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

and save years spent in mis-directed efforts which are a necessary result of trying to acquire experience without the direct aid and assistance of an engineer properly experienced in such work.

Address M. 180, Engineering News

For Sale
Second Hand Equipment

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

Equipment Wanted items appear at the end of this list.

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ADVERTISERS' NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

BRADEN, James C., 26 Cortlandt St., N. Y. City.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal & Supply Co., 167 South St., N. Y. City.
MICHELIN Tire Co., Milltown, N. J.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
TITAN Equipment Co., 30 Church St., N. Y. (Cort. 1111.)
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—Ingersoll-Rand H-3, 1000 Cu. Ft. Compound Steam Compound.—SAMPSON.

1—WB-2 Sullivan 909 Cu. Ft. Tandem Steam Driven Compound.—SAMPSON.

1—Rand Class "C" 527 Cu. Ft. and 2—Rand Class "C" 98 cu. ft. straight Line steam Driven.—SAMPSON.

1—Imperial XB-2, 1312 Cu. Ft. and 1—Imperial XB-2, 1190 Cu. Ft. Compound Belt Driven.—SAMPSON.

1—Ingersoll-Sergeant Class "E-1" 236 Cu. Ft. Belt Driven.—SAMPSON.

1—Blake 380 Cu. Ft. Duplex Steam Comp.; 1—Ing.-Serg. Class "F" 233 Cu. Ft. Straight Line Steam Driven.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

1 Westinghouse 100 cu.ft. motor driven with governor to automatically regulate the air pressure; in good condition; reason for selling, too small.—MICHELIN.

BELT CONVEYORS

1—14" and 1—16" 50' centers.—GIVIN.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x 14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 50, 60 and 80 H.P. locomotive boilers.—PIPE.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

96—42 cu.ft. Stuebner tip-over buckets.—SCHMIDT.

CARS

[36" Gauge]
40 Western 4 yd. dump, $2000 each.—F. S. 333, Eng. News.

[24" Gauge]

10—1 yd. swivel end dump cars.—PIPE.

80—36 cu.ft. Koppel "V" body.—SCHMIDT.

12 Koppel 1¼ yd., steel V shape.—GRIMSHAW.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 Climax Portable plant complete, A1.—GIVIN.

1—18x36 Farrell; 1—24x36 Buchanan.—SCHMIDT.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

125′ boom, 35 ton cap. steel stiff leg with bull wheel; 4-section boom; removal mid-section adds capacity. Mast 75′, sills 58′, stiff legs spread 68′. High grade for yard or erecting work. Quick sale price.—TITAN.

12 Breast or Stoneman's 13′ to 40′, good condition; fully rigged; cheap.—M. N. Campbell, 64 West 104th St., N. Y. City.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

ELECTRIC LIGHTS

For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. **HILL PUBLISHING CO., 10th Ave. at 36th St., New York.**

ENGINES, GAS

1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

EXCAVATORS

⅓ cu.yd. and up. Traction. Ideal for cellars, trenching, grading.—TITAN.

GENERATORS

Western Electric 100 K.W. dir, con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

6 Lidgerwoods—4—7x10 D.C. D.D. with boilers; 1—7x10 D.C. D.D. skeleton with swinger; 1—6¼x8 skeleton.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

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Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E. 918 Chestnut St., Phila.

$115 Gurley Y Level, nearly new—$80. $165 Gurley No. 20 Explorers' Transit, nearly new—$118. Guaranteed. 99 others. Rentals, repairs, supplies. ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

40-ton Climax geared, rebuilt; like new.—DALLETT.

[36″ Gauge]

10 10x16″ Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14″ Porters.—SOUTHERN.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

Have 15 from 7 to 20 tons, all makes.—GRIMSHAW.

[24″ Gauge]

7 ton, 6x10″ Porter, overhauled.—GRIMSHAW.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

1—7 Ton, 4 wheel, Industrial, 21′ boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20′ boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

1—45 ft. 4-wheel Industrial.—WHITNEY.

4 or 8 wheel 5 to 40 ton capacities.—TITAN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day: rare bargain.—LINES FLYNN.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2½ Smith with engine on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

Standard, ⅓ yd., gasoline engine.—DALLETT.

1—No. 66—½ Yard "Ransome" with engine and pivot charging hopper, on wheels.—L. F. SEYFERT'S SONS, Inc., 437 N. Third St., Phila., Pa.

Lakewood ⅓ yd. and Austin Cube ½ yd., both with steam engine, boiler and side loader; Ransome, either steam or gasoline, ¾ yd.—WATERLOO CEMENT MACHINERY CORP'N, South Ferry Bldg., New York, N. Y.

PILING, SHEET STEEL

5000 pcs. Lackawanna, Carnegie and Wemlinger, various lengths.—GRIMSHAW.

165 pcs. Lackawanna 14″ arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

300,000 rethreaded wrought, sizes ¾″ to 24″.—MARINE.

5000 lin.ft. 36″ diameter riveted steel pipe, 3/16″ plate, tested 75 lbs. pressure; used short time and now in good condition.—H. S. KERBAUGH, INC., 6 Church St., New York, N. Y.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; Cameron 10x10½x20 and other sizes.—PIPE.

RAILS

40 ton of 35° lb. with fish plates.—PIPE.

20,000 ft. 24″ gauge 20 lb. portable track.—SCHMIDT.

5000 tons, 30 to 85 lbs.—GRIMSHAW.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1 Tandem paving roller in excellent condition. Low price for quick sale. Write F. S. 296, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

18-B Bucyrus traction, used few weeks; Type "O" Thew traction, Mass. boiler, prime condition.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—14B Bucyrus traction revolving ⅝ yd.—GIVIN.

Have 25 from ⅝ to 5 yd., all makes.—GRIMSHAW.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

Wanted

Macadam roller at a bargain, size 10-ton. Send price and other information to W. 297, Eng. News.

8-wheel locomotive crane 15 to 30 tons cap., 35′ to 50′ boom, to operate grab bucket. Reply K. R. B., W. 298, Eng. News.

First-class 15-20 ton 8-wheel loco. crane.—W. 305, Eng. News.

2—10 ton road rollers, must be O.K.—W. 334, Eng. News.

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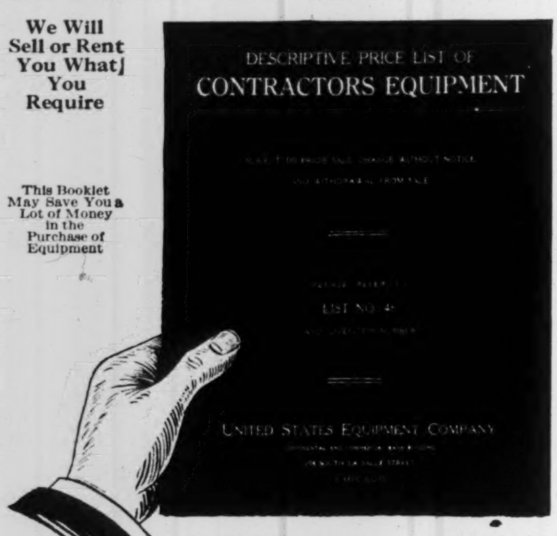
This Booklet May Save You a Lot of Money in the Purchase of Equipment



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Etc., Etc.
Orange Peel and Clam Shell Buckets

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208 South La Salle St., CHICAGO, ILL.

There's Money in Dirt

if you handle it the right way.
The **Rightest** way is to pick it up with a

Western Elevating Grader

and load it into Western Dump Wagons. Especially valuable in street grading where two men can handle 1000 yds. a day with the grader. Operates in 16½-ft. space—digs fast and clean.

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Air Dump Cars—Hand Dump Cars—Spreader Cars—Scrapers—Road Machinery—Portable Rock Crushers—Dump Wagons—Elevating Graders, Wagon Loaders and Ditchers.

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THE BENVENUE QUARRIES AT SULLIVAN, MAINE

EASILY accessible from tide water on same property. Equipped and developed, ready to take out stone of any size. A beautiful, fine-grained stone, light bluish gray in color, free from imperfections; good cleavage, easily and cheaply quarried; sheet formation; suitable for paving and curbing.

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The famous Crotch Island stone. Clear, good stone, adapted for building or any heavy or rough work, either cut or polished. Large sheets of all sizes; on tide water; minimum expense of handling and loading; perfect and complete equipment in every respect ready for operation.

Above valuable properties sold together or separately at a bargain. **Write for further information, description, terms, etc., to**

PETERS & KNOWLTON
Attorneys at law
ELLSWORTH MAINE

FOR SALE

ROAD CONTRACTORS' PLANT

16—Buffalo-Pitts 3½ yd. reversible wagons, used 3 months, good as new.
1—Deyo 1½ H.P. gasoline engine.
1—Unloading plant consisting of 14" buckets, elevator and stone bin.
1—Monarch oil distributer used 2 months.
1—Asphalt heating kettle 500 gal.
2—Buffalo heating kettle 150 gal.
1—Water cart—new valves last fall.
2—Hauling tanks mounted 500 gal.
4—Steel unloading shutes.
12—Single carts.
1—Centrifugal pump 2".
1—Hvass road sweeper.
1—Frick hauling engine.
6—Wheel scrapers.
3—Climax stone spreading wagons.
10—Hayward 2-yard dump wagons.

T. H. GILL COMPANY, Binghamton, N. Y.

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Air Compressors
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seconds, which would permit the unloading of a 40-yd. car in from one-half to three-quarters of an hour. Ordinarily, eight cars per day are found to be handled easily. The crushed-stone stockpile usually has in reserve about 25 carloads and the sand stockpile contains about half of that number of loads.

Bulk cement is discharged from the storage bin through a vertical chute into the mixing hopper. In so doing it passes through a sheet-steel measuring section with gates at the top and bottom. One of three $\frac{3}{16}$-in. holes in this section is used to gage the amount required for a given mix —that is, for the usual run or for finishing mortar. The measured cement is released through a hinged door at the bottom of the chute by the operator on the charging platform.

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batch a minute from a one-yard mixer. Those in charge estimate that it should be easily possible to turn out 60 batches, 1¼ yd. each, in an hour with this equipment, which would mean a possible total of over 500 cu.yd. in a day's run. The capacity of the storage bins is enough for 100 batches at least without renewal and the maximum rate of output would be easily obtainable by reason of the adequate facilities for unloading bulk cement and for obtaining sand and stone from the adjacent stockpiles or from supply cars on the siding.

The architectural design of the Northwest Station for the Commonwealth Edison Co. is by Holabird & Roche, Chicago. The steam-engineering work was laid out by Sargent & Lundy, Chicago, and the electrical work by the staff of the Commonwealth Edison Co. The Thompson-Starrett Co., of Chicago, with Fred D. Lyon in active
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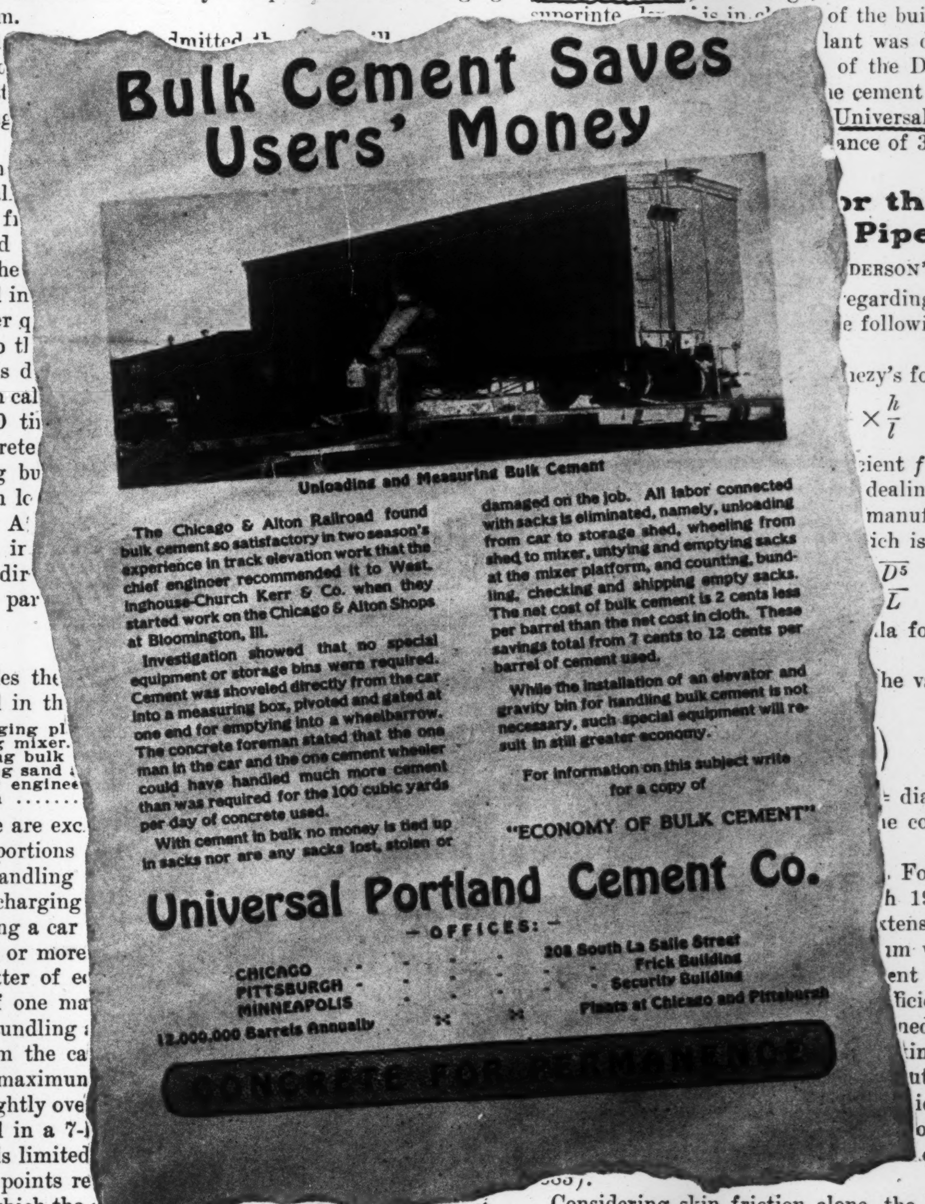
Considering skin friction alone, the head lost will diminish as the diameter increases. Considering the in-



Bulk Cement Saves Users' Money

Unloading and Measuring Bulk Cement

The Chicago & Alton Railroad found bulk cement so satisfactory in two season's experience in track elevation work that the chief engineer recommended it to Westinghouse-Church Kerr & Co. when they started work on the Chicago & Alton Shops at Bloomington, Ill.

Investigation showed that no special equipment or storage bins were required. Cement was shoveled directly from the car into a measuring box, pivoted and gated at one end for emptying into a wheelbarrow. The concrete foreman stated that the one man in the car and the one cement wheeler could have handled much more cement than was required for the 100 cubic yards per day of concrete used.

With cement in bulk no money is tied up in sacks nor are any sacks lost, stolen or damaged on the job. All labor connected with sacks is eliminated, namely, unloading from car to storage shed, wheeling from shed to mixer, untying and emptying sacks at the mixer platform, and counting, bundling, checking and shipping empty sacks. The net cost of bulk cement is 2 cents less per barrel than the net cost in cloth. These savings total from 7 cents to 12 cents per barrel of cement used.

While the installation of an elevator and gravity bin for handling bulk cement is not necessary, such special equipment will result in still greater economy.

For information on this subject write for a copy of

"ECONOMY OF BULK CEMENT"

Universal Portland Cement Co.

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12,000,000 Barrels Annually ✕ ✕ Plants at Chicago and Pittsburgh

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*Assistant Professor Mechanical Engineering, Armour Institute of Technology, Chicago, Ill.

We Put It Under the Table

An Air Chamber does not help the **Luitwieler** pump, so we put it under the table. The Cam Shaft is floating, no pressure on either side. This pump makes 220 double acting pump strokes per minute, $3\frac{1}{2}''$ x $4''$ Pistons, 214 gallons per minute. Note the 5″ wire nails standing on head against the 2″ steel rollers- - absolutely no vibration.

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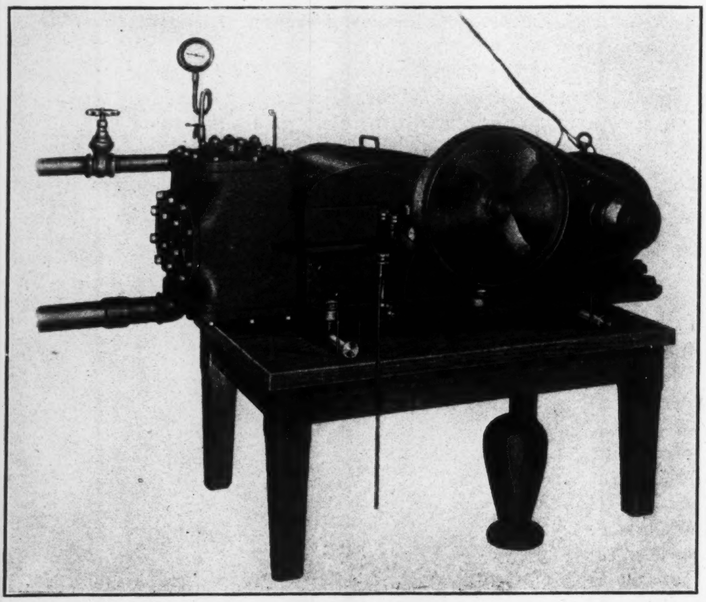

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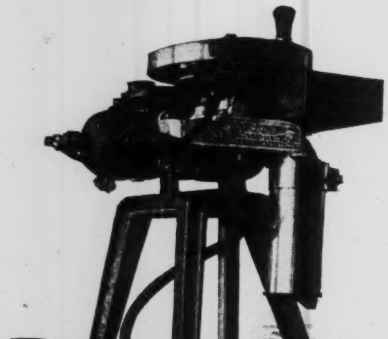
Pumping Engine Co.
Rochester, N. Y.

Cheap Pumping



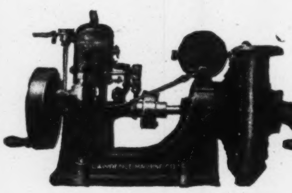
For big results at low cost the hardest little worker for its size you ever saw is the

EVINRUDE CENTRIFUGAL PUMP

Write for prices and capacities at various heads.

Evinrude Motor Company
86 Evinrude Block, Milwaukee, Wis.

For the Modern Contractor

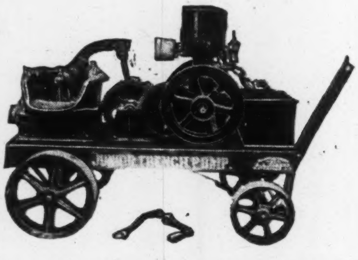


Lawrence Gasoline Engine direct-connected Contractor's Pumps are furnished either double or single suction, in sizes from 2″ to 10″ discharge. They are meeting with great success. Positive reliability and extreme ruggedness are noteworthy features. Our engineers will gladly assist you in selecting the best outfit for your needs. **Write.**

Lawrence Machine Co.
Lawrence, Mass. 30 Church St., New York

Does the Work of Four Laborers

The Junior Trench Pump will lift water containing sand, gravel or sewerage. Can be operated for 7 hours on 1 gallon of gasoline with a capacity of 3500 gallons per hour. Built for hard service. Any diaphragm pump can be fitted to the outfit.



Send for Booklet.

A. A. Parker
Waterford, N. Y.

Bids received until July 12, 1915.

County Highway Tunnel

OFFICE OF THE CONTROLLER OF ALLEGHENY COUNTY.

Pittsburgh, Pa., June 1st, 1915.

Sealed proposals will be received at this office until 1:30 o'clock P.M., Monday, July 12th, 1915, and will at that time be publicly opened by the County Commissioners, for the construction of a tunnel and the approaches thereto, known as "County Highway Tunnel No. 1," extending from the southerly side of East Carson Street near Third Street, Pittsburgh, in a southerly direction to a point on Warrington Avenue, near Boggs Avenue, Pittsburgh, Pa. The proposals submitted must be on the blank form of proposals which are bound with the contract, specifications and information for bidders, and must be addressed to the County Commissioners of Allegheny County, Pennsylvania, and deposited with the County Controller, marked "Proposal for County Highway Tunnel No. 1." Proposals must be accompanied by a certified check in the sum of One Hundred Fifty Thousand ($150,000.00) Dollars, made payable to the Commissioners of Allegheny County, to be returned to the unsuccessful bidders three days after the awarding of the contract. Within ten (10) days after receiving final notice of the awarding of the contract, the successful bidder will be required to execute the contract and furnish a proper surety bond, satisfactory to and to be approved by the County Commissioners, in the sum of Fifty (50%) per centum of the amount of the contract price, conditioned for the faithful performance of all the terms and provisions of the contract.

Copies of the form of proposal, contract and information for bidders and copies of the plans and specifications may be obtained at the office of A. D. Neeld, Consulting Engineer for the County of Allegheny, at No. 237 Fourth Avenue, Pittsburgh, and at the office of the County Commissioners, Court House, Pittsburgh, Pa., on and after June 7th, 1915. Those desiring to bid may have plans and specifications upon the deposit of Twenty-five ($25.00) Dollars, which will be refunded if said plans and specifications are returned in good condition within ten (10) days after the bids have been received and acted upon by the County Commissioners.

The County Commissioners reserve the right to reject any and all bids.

HYATT M. CRIBBS,
County Controller for the County of Allegheny.

⁂

Bids received until June 16, 1915.

Street Paving

New Boston, Ohio.

Sealed bids will be received by the Village Council of New Boston, Scioto County, Ohio, at the office of the Village Clerk, until 12 o'clock noon, Central Standard Time, on the 16th day of June, 1915.

To furnishing all the necessary labor and materials, for the construction of vitrified or hard burned brick roadway and combined cement curb and gutter, upon ten (10) separate streets in said Village according to the plans and specifications therefor, now on file in the office of the Village Clerk and also on file in the office of the Engineer, Samuel G. Harper, No. 1913 Nineteenth Streeet, Portsmouth, Ohio. The total approximate quantities of said work are as follows:

60,138 sq.yds. of paving and 35,090 lineal feet of combined cement curb and gutter.

Each bid must contain the full name of every person, partnership or corporation interested therein and be accompanied by a certified check upon some solvent bank in the sum of Two Hundred ($200.00) Dollars for each street for which a bid is submitted as a guarantee if the bid is accepted a contract will be entered into and its performance properly secured.

Should any bid be rejected, such check will be forthwith returned to the bidder, and should the bid be accepted, such check will be returned upon the proper execution and securing of the contract.

Bidders will be required to use the printed forms, which will be furnished by the Clerk upon application.

The right is reserved by the Village Council to reject any or all bids.

By order of the Council of the Village of New Boston, Ohio.

THOMAS D. O'NEAL, Clerk.

New Boston, Ohio, June 1st, 1915.

Bids received until July 8, 1915.

Cast Iron Water Pipe

Covington, Ky., June 5th, 1915.

SEALED PROPOSALS for Cast Iron Pipes and Special Castings will be received by J. Mason Howk, Commissioner of Public Property, Covington, Ky., until ten o'clock Thursday, the 8th day of July, 1915.

Each proposal will have to be accompanied by a cash deposit or certified check in the sum of $2000.00 as a guarantee of good faith that the party making the proposal will, in ten days if contract is awarded to him or them, execute the same, with approved security, after which the check or cash so deposited will be returned to him.

Checks to be made payable to the City of Covington, Ky., or order.

The contractor for the furnishing of said Cast Iron Pipes and Special Castings will be required to give an approved surety or Trust Company bond in an amount equal to the cost of the pipes and Special Castings to insure a faithful completion of the contract.

The Engineers' estimate of the amount of pipes and Special Castings to be contracted for, and by which the bids will be compared, is as follows:

996 tons of 24-inch Class "C" pipes
2591 tons of 24-inch Class "D" pipes
20 tons of Special Castings

The above quantities are to be considered approximate only, and the said Commissioner of Public Property expressly reserves the right of increasing or diminishing the same as in his opinion may be necessary.

The prices bid are to cover all expense of manufacturing and delivering on board cars in the city of Covington, Ky., and Wilder Station, Campbell County, and Newport, Ky., as set forth in the specifications for same.

Copies of specifications will be furnished bidders on or about the 15th day of June upon application to the Clerk of the Commissioner of Public Property or their Consulting Engineer.

Bidders must indorse their names and address upon the outside of the envelopes containing their bids.

J. MASON HOWK, Comr. of Public Property.
GEORGE HORNUNG, Consulting Engineer.
Wool-Sack Building, Newport, Ky.

⁂

Bids received until June 24, 1915.

Water-Works

Oakfield, N. Y.

Sealed proposals will be received by the Village Trustees of Oakfield, N. Y., until 12 o'clock noon, June 24th, 1915, for the construction of a water-works system, which includes about four miles of 10", 8" and 6" cast-iron pipe and laying, valves and hydrants, pumping station, power pumping machinery and elevated water tower.

Plans, specifications, form of proposal and contract may be seen and specifications obtained at the office of the Village Clerk, Oakfield, N. Y., or at the office of the Engineer, H. C. Kittredge, 815 German Insurance Building, Rochester, N. Y.

The Village Trustees reserve the right to reject any and all bids.

The proposal for said work shall be accompanied by a certified check drawn upon a State or National Bank for five per cent. (5%) of the price bid, payable to the order of the Board of Trustees of the Village of Oakfield, N. Y.

The checks deposited by the unsuccessful bidders will be returned. The amount of the check deposited by the successful bidder shall be forfeited in the event that said bidder shall fail within ten days after the award to execute the contract and furnish to the Village Trustees a satisfactory bond.

Proposals must be on forms furnished by the Village Trustees and addressed to A. B. Rathbone, Oakfield, Genesee County, New York, and shall be endorsed "Proposal for Water Works System."

A. B. RATHBONE,
W. E. GANSHAW,
R. R. BICKLE,
Village Trustees.
S. A. INGALSBE, Clerk.
H. C. KITTREDGE, Engr., Rochester, N. Y.
Dated June 2nd, 1915.

Bids received until June 29, 1915.

Water-Works, Pump Station, Reservoir and Mains

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council, at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard Time, of the 29th day of June, 1915, and then publicly opened and read, for the construction of a Water-Works for the Village.

The work to be done includes the construction of a pump station, 200,000-gallon reinforced-concrete reservoir, and approximately 8 miles of water mains, 4" to 8" in size.

Bids will be made on the work as a whole.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of the proposal, or by a bond with surety satisfactory to the Village Council.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Copies of the plans, proposal forms, specifications and forms of bonds and contract can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Ten ($10.00) Dollars with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded upon the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned. Copies of the specifications alone may be obtained upon depositing Two ($2.00) Dollars.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bids which it deems most favorable to the Village of Rittman, Ohio.

By order of the Village Council.

VANCE HICKIN, Clerk.

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Bids received until June 22, 1915.

Nozzles, Ladders, etc.

SEALED BIDS will be received by the Board of Water Supply, at its offices, twenty-second floor, Municipal Building, Park Row, Centre and Chambers Streets, New York City, until 11 A.M. on Tuesday, June 22, 1915, for Contract 106—for furnishing, delivering and installing, where required, bronze or steel ladders, nozzles and other articles.

The points of delivery or installation are along the line of the Catskill aqueduct between the Ashokan reservoir, in the town of Olive, Ulster county, and Hill View reservoir, in the city of Yonkers, Westchester county, New York.

At the above place and time the bids will be publicly opened and read. Pamphlets containing information for bidders and contract drawings can be obtained at the above address, at the office of the Secretary, by depositing the sum of ten dollars ($10) in cash or its equivalent for each pamphlet. For further particulars apply to the office of the Principal Assistant Engineer at the above address.

CHARLES STRAUSS, President,
CHARLES N. CHADWICK,
JOHN F. GALVIN,
Commissioners of the Board of Water Supply.
W. BRUCE COBB, Secretary.

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U. S. ENGINEER OFFICE, Newport, R. I., May 12, 1915.—Sealed proposals for rebuilding wharves and building new sea wall and coal house, at U. S. Bureau of Fisheries Station at Woods Hole, Mass., will be received here until 12 o'clock, noon, June 12, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

U. S. ENGINEER OFFICE, Newport, R. I., May 17, 1915. Sealed proposals for dredging in the harbor of refuge at Block Island, R. I., will be received here until 12 o'clock, noon, June 16, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

U. S. ENGINEER OFFICE, 540 Federal Building, Buffalo, N. Y., May 19, 1915.—Sealed proposals for construction of concrete superstructure on north pier, Erie Harbor, Pa., will be received at this office until 11 a.m., June 19, 1915, and then publicly opened. Information on application. L. V. FRAZIER, Captain, Engineers.

PROPOSALS FOR CONCRETE SUPERSTRUCTURE.—U. S. Engineer Office, Buffalo, N. Y.—Sealed proposals will be received here until 11 a.m., June 23, 1915, and then opened, for construction of concrete superstructure on outer breakwater at Oswego Harbor, N. Y. Further information on application.

Bids received until June 29, 1915.

Water-Works Pumping Equipment

Rittman, Ohio.

Sealed proposals will be received by the Clerk of Council, at Rittman, Ohio, in the Council Chamber, until 1 o'clock P.M., Central Standard Time, of the 29th day of June, 1915, and then publicly opened and read, for Water-Works Pumping Equipment.

The work to be done includes a 50 H.P. horizontal gas engine, a triplex pump of 400 gallons per minute capacity, 2 air compressors, motor driven multi-stage centrifugal pump, of 200 gallons per minute capacity, and other necessary pumping equipment.

Bids will be made on the work as a whole.

Each proposal shall be accompanied by a certified check for ten (10%) per cent. of the amount of proposal, or by a bond with surety satisfactory to the Village Council.

The contract bond will be for fifty (50%) per cent. of the amount of the contract.

Copies of the plans, proposal forms, specifications and forms of bonds and contract can be seen at the office of the Clerk of Council, Rittman, Ohio; or may be obtained by prospective bidders upon depositing Five ($5.00) Dollars with W. F. Peters, Engineer, Medina, Ohio, or R. Winthrop Pratt, Consulting Engineer, Hippodrome Bldg., Cleveland, Ohio, which sum will be refunded upon the return of plans and specifications within ten (10) days after the contract is awarded, if same are in good condition when returned. Copies of the specifications alone may be obtained upon depositing Two ($2.00) Dollars.

The Village Council reserves the right to reject any or all bids, waive any informalities in the bids received and to accept any bids which it deems most favorable to the Village of Rittman, Ohio.

By order of the Village Council.

VANCE HICKIN, Clerk.

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Bids received until June 15, 1915.

Greenhouses for Executive Mansion

Albany, N. Y.

Sealed proposals, Construction Work for Greenhouses, for the New York State Executive Mansion, Albany, N. Y., will be received by the Trustees of Public Buildings at the Capitol, Albany, N. Y., until 4 o'clock P.M. on Tuesday, June 15, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of $75.00 for Proposal No. 1 and $225.00 for Proposal No. 2. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of 50% of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of specification No. 2277. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

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FORT SILL, Okla., June 4, 1915.—Sealed Proposals in Triplicate will be received here until 11 A.M., June 21, 1915, for minor Repairs to Hospital Buildings, interior and exterior painting, Repairing Screens and Windows, etc. Information on application. CONSTRUCTING QUARTERMASTER.

PROPOSALS FOR STEEL HIGHWAY BRIDGE ACROSS THE COLORADO RIVER.—Department of the Interior, Office of Indian Affairs, Washington, D. C., May 25, 1915.—Sealed proposals plainly marked on the outside of sealed envelope, "Proposals for steel highway bridge across the Colorado River near Topock, Arizona, and addressed to the Commissioner of Indian Affairs, Washington, D. C., will be received at the Indian Office until 2:00 P.M., June 19, 1915, for furnishing materials and labor for the construction of a steel highway bridge across the Colorado River at or near Topock, Arizona, in strict accordance with plans, specifications, and instructions to bidders, which may be examined at the office of the paper or periodical in which this advertisement appears, at United States Indian Warehouses at Chicago, Illinois, St. Louis, Missouri, and San Francisco, California, and at the office of the Superintendent of the Fort Mojave School, post office address, Mojave City, Arizona. For further information apply to the Superintendent of Fort Mojave School. CATO SELLS, Commissioner.

Bids received until June 29, 1915.

Highway Improvements

Scarsdale, N. Y., June 4, 1915.

Sealed proposals for the construction and improvement of certain highways, and sidewalks, and the construction of a highway bridge over the tracks of the N. Y. C. R.R. will be received by the undersigned, or by his legal successor, until two (2) o'clock P.M., June 29, 1915, and will then be publicly opened and read at the Town Hall in the Town of Scarsdale.

The work will be done under three separate contracts as follows:

Contract No. 1 will include the grading, laying of foundations, construction of sidewalks, curbing, etc., on the highways mentioned in the specifications, involving substantially the following estimated principal items: Earth excavation and embankment, 13,000 cubic yards; rock excavation, 2,200 cubic yards; underdrains, 4,000 linear feet; vitrified pipe, 800 linear feet; concrete, 3,700 cubic yards; Portland Cement, 4,500 barrels; 6-Inch Macadam base, 4,600 square yards; Concrete Curb, 8,000 linear feet; brick sidewalks, 39,400 square feet, etc.

Contract No. 2 will cover the surfacing of the said highways, involving the laying of approximately 24,000 square yards of bituminous macadam, bituminous blocks, paving blocks or other type of approved surface to be selected by the undersigned after consideration of the proposals to be received hereunder.

Contract No. 3 will cover furnishing and erecting complete a steel plate girder highway bridge covered with reinforced concrete, and with reinforced-concrete floor system over the tracks of the N. Y. C. R.R. at Popham Road, Scarsdale, N. Y., including lowering of existing concrete abutments and dismanteling and removing the existing bridge.

Plans, specifications, information for bidders, form of proposed contract and forms of proposals may be obtained at the residence of the undersigned on Drake Road in the said town, or at the office of Ward, Carpenter & Co., civil engineers, Tarrytown, N. Y., or at the office of Jay Downer, engineer in charge, 100 Broadway, N. Y. City.

A charge of $2.50 will be made for each set of said plans, specifications, contract and proposals furnished to applicants therefor.

Each proposal must be made on one of the blank forms provided for the purpose and must be accompanied by a certified check for $2500 for each contract for which a proposal is submitted.

The amount of required bond for faithful performance, etc., will, in the case of each contract, be the full amount of the contract as estimated by the engineer.

Proposals may be left with the undersigned at his residence on Drake Road in said Town, until 1 o'clock p.m., on the said 29th day of June, 1915, and after that hour proposals may be delivered to him until 2 o'clock p.m., on said day at the Town Hall in said town.

The undersigned reserves the right to reject any or all bids.

WILLIAM MERCER,
Superintendent of Highways of the Town of
Scarsdale, N. Y.

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U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich., May 5, 1915.—Sealed proposals for excavation of Earth and Rock, U. S. Power Plant Tail Race, St. Marys River, Mich., will be received at this office until 12 M., June 15, 1915, and then publicly opened. Information on application. MASON M. PATRICK, Lt.-Col., Engineers.

U. S. ENGINEER OFFICE, Room 305 Southern Building, Washington, D. C., May 27, 1915.—Sealed proposals for furnishing and delivering 300 tons, 25% more or less, Sulphate of Alumina will be received here until 12 M., June 26, 1915, and then publicly opened. Information on application.

PROPOSALS FOR REPAIRS, SOUTH DOCK, ETC.—Office Quartermaster, West Point, N. Y.—Sealed proposals will be received here until 12 M., June 30, 1915, and then opened, for reconstruction and repairs to South Dock and Ferry Slip. Further information application.

U. S. ENGINEER OFFICE, Newport, R. I., May 29, 1915.—Sealed proposals for rebuilding basin walls and repairing breakwaters and harbor walls at harbor at Block Island, R. I., will be received here until 12 o'clock noon, June 29, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

PROPOSALS FOR LEVEE WORK—Office of the Secretary, Mississippi River Commission, 1311 International Life Building, St. Louis, Mo.—Sealed proposals will be received here until 11 a.m., June 17, 1915, for constructing about 175,000 cubic yards of earthwork in the East Side Levee and Sanitary District, Ill. Further information on application.

Bids received until June 22, 1915.

Sewerage Extensions

Scarsdale, New York.

Sealed Proposals, for the construction of sewerage extensions in Scarsdale, New York, will be received until 8 P.M. on June 22, 1915, and will then be publicly opened and read by the Sewer Commissioners, or their successors, at a meeting to be held in the Town Hall of Scarsdale.

Plans and specifications may be seen, and blank forms of proposal obtained, at the office of Waring, Chapman & Farquhar, civil engineers, 874 Broadway, New York City.

A charge of $3.00 will be made for plans and specifications furnished to applicants therefor.

Each proposal must be made on one of the blank forms provided, and must be accompanied by a certified check.

The proposed work is in three divisions, for which contracts may be awarded separately, or for two or all divisions.

The approximate quantities, amount of certified check, and time to be allowed for construction, are as follows:

Division A: 4200 lineal feet of 8" and 10" sewers.
Check $500.00. Time, 3 months.
Division B: 3700 lineal feet of 8" sewers.
Check $500.00. Time, 3 months.
Division C: 15,600 lineal feet of 8" and 10" sewers.
Check $1,000.00. Time, 5 months.

The amount of bond for faithful performance, to be furnished when the contract is executed, is to be the same amount as the total contract price for the work, as computed from the accepted bid or bids.

The Sewer Commissioners reserve the right to reject any or all bids.

JOHN R. ROSS,
ALBERT C. DAVIS,
GEORGE A. HARWOOD,
Sewer Commissioners of Sewer District No. 1,
Town of Scarsdale, New York.

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PROPOSALS FOR COAL.—U. S. Engineer Office, Wilmington, N. C.—Sealed proposals will be received here until 12 M., June 28, 1915, and then opened for furnishing about 13,000 tons of bituminous coal. Further information on application.

U. S. ENGINEER OFFICE, Room 707, Army Building, 39 Whitehall St., New York, N. Y.—Sealed proposals will be received here until 12 M., June 28, 1915, and then opened, for dredging in Newtown Creek, N. Y. Further information on application.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich.—Sealed proposals for furnishing and delivering at Sault Ste. Marie, Michigan, about 325 tons of steel, etc., for construction of Fourth Lock, will be received at this office until 12 noon, June 30, 1915, and then publicly opened. Information on application.

PROPOSALS FOR DREDGING.—U. S. ENGINEER OFFICE, 815 Witherspoon Bldg., Philadelphia, Pa.—Sealed proposals will be received here until 12 NOON, JUNE 21, 1915, and then opened, FOR DREDGING IN DELAWARE RIVER, opposite Port Richmond coal piers, Philadelphia harbor. FURTHER information on application.

FORT SILL, OKLA., May 15, 1915.—Sealed proposals in triplicate will be received here until 11 A.M., June 15, 1915, for constructing Quartermaster Corps Barrack, double set engineer's quarters magazine, additions to 4 barrack buildings, 5 stables, repairing 9 double officers quarters, 3 barrack buildings, band barrack, shops and coal houses. Information on application. CONSTRUCTING QUARTERMASTER.

U. S. ENGINEER OFFICE, Savannah, Ga., May 21, 1915.—Sealed proposals for repairs to bank protection of Savannah River at Augusta, Ga., will be received at this office until 12 noon (Eastern Standard Time), June 21, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Colonel, Engineers.

U. S. ENGINEER OFFICE, Room 707, Army Building, 39 Whitehall St., New York, N. Y.—Sealed proposals will be received here until 12 M., June 25, 1915, and then opened, for furnishing and placing riprap and repairing sea wall at Governors Island, N. Y. Further information on application

PROPOSALS FOR STRUCTURAL METAL—U. S. Engineer Office, Vicksburg District, Vicksburg, Miss.—Sealed proposals will be received here until 12 m., June 15, 1915, and then opened, for furnishing steel lock gates, valves, Poiree trestles, operating machinery, etc., aggregating about 450,000 pounds. Further information on application.

PROPOSALS FOR LEVEE WORK—Mississippi River Commission, 1st & 2d Districts, Room 20, Custom House, Memphis, Tenn., June 4, 1915.—Sealed proposals for constructing about 700,000 cubic yards of levee work in the Lower St. Francis Levee District will be received at this office until 11 a.m., June 26, 1915, and then publicly opened. Information upon application. E. M. MARKHAM, Maj., Engrs.

OFFICE, COMMISSIONERS, DISTRICT OF COLUMBIA, Washington, June 1, 1915.—Sealed proposals will be received at the office of the Secretary of the Board of Commissioners, Room 509, District Building, until 2 o'clock P.M., June 22nd, 1915, for grading and improving streets, roads and avenues in the District of Columbia. Forms of proposals, specifications and necessary information may be obtained from the Chief Clerk, Engineer Department, Room 427, District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

OFFICE, COMMISSIONERS, DISTRICT OF COLUMBIA, Washington, June 5, 1915.—Sealed proposals will be received at the office of the Secretary of the Board of Commissioners, Room 509, District Building, until 2 o'clock P.M., Tuesday, June 22nd, 1915, for Laying Granite Block Roadway approximating 7700 square yards. Forms of proposals, specifications and necessary information may be obtained from the Chief Clerk of the Engineer Department, Room 427, District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities**, **Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale**, 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similar literature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 326, Eng. News.

A MECHANICAL ENGINEER who has been engaged for several years in designing and manufacturing a well known line of goods yielding large profits seeks a position with reputable and progressive firm of high standing engaged in structural steel or kindred work who can use his knowledge and experience to mutual advantage; he controls some valuable patents and can furnish some capital and highest references. Address "Progress," P. W. 328, Eng. News.

CORNELL GRADUATE electrical and mechanical engineer with extensive practical experience designing, constructing, maintaining, operating, inspecting, testing and office engineering desires position with manufacturing or engineering corporation. P. W. 370, Engineering News.

MECHANICAL AND ELECTRICAL ENGINEER, 39; fourteen years' experience construction, maintenance and selling; engineering or executive position. P. W. 358, Eng. News.

Civil Engineers

WATER-SUPPLY, water power, dams, sewers; responsible charge, construction and design; present engagement soon terminates; age 34; Assoc. M. Am. Soc. C. E. P. W. 224, Eng. News.

CIVIL ENGINEER, age 34, graduate, Assoc. M. Am. Soc. C. E., experienced in the design and construction of reinforced concrete structures and who has traveled extensively and is able to meet people, desires position of responsibility. P. W. 354, Eng. News.

GRADUATE CIVIL ENGINEER, married, employed; good executive; six years' experience in manufacturing, desires change. P. W. 355, Eng. News.

CIVIL ENGINEER, technical graduate, Assoc. M. Am. Soc. C. E.; 15 years' experience hydraulic construction, municipal work, management and construction of water-works; business experience; $3600; now employed. P. W. 345, Eng. News.

HIGHWAY ENGINEER, technical graduate; four years' experience, two years responsible charge, New York State and tropics; available at once; moderate salary. P. W. 344, Eng. News.

CIVIL ENGINEER; 28, single, American, technical, railroad location, design and construction, hydro-electric, water works, subways, tunnels, reports and estimates; tropics and north, speak Spanish. P. W. 261, Eng. News.

CIVIL ENGINEER, graduate, Assoc. M. Am. Soc. C. E., 15 years' experience, responsible charge general construction, railroads and municipal improvements, surveys, expert computer, have instruments. P. W. 284, Eng. News.

CIVIL ENGINEER, Assoc. Mem. A. S. C. E., 18 years' experience, municipal roads, bridges, reinforced concrete. Complete outfit, both office and field. References. P. W. 329, Eng. News, Chicago.

CIVIL ENGINEER, graduate with high reference, twenty years' experience surveys, design, construction, railways, bridges, tunnels, foundations and hydraulic works open to engagement. P. W. 307, Eng. News.

GRADUATE CIVIL ENGINEER, just finishing his M. S. degree, desires position; location immaterial; salary secondary consideration. P. W. 342, Eng. News.

NO SALARY WANTED; will work for the experience acquired; civil engineer, Slav, 26; construction work, field or office. P. W. 339, Eng. News.

GRADUATE CIVIL ENGINEER, coöperative course, University of Cincinnati, desires work; anywhere. P. W. 337, Eng. News, Chicago

TECHNICAL GRADUATE, 24, three years construction and estimating experience, wants position; salary secondary. P. W. 343, Eng. News.

CIVIL ENGINEER, technical graduate, desires position; 11 years' experience steam and electric railway maintenance and construction, reinforced-concrete bridge construction, large drainage canal work, difficult swamp drainage surveys; speaks and writes Spanish fluently; references; location immaterial. P. W. 360, Eng. News.

CIVIL ENGINEER, graduate; six years' experience with engineers and contractors; railroads, sewers, power plants, subways. P. W. 363, Eng. News.

GRADUATE CIVIL ENGINEER, 20 years' experience in charge irrigation, drainage, hydraulic and railroad construction, also valuation engineer public utilities, now finishing important work, wishes employment. P. W. 272, Eng. News.

GRADUATE CIVIL ENGINEER desires position; location immaterial; salary secondary consideration. P. W. 366, Eng. News.

CONSTRUCTION CIVIL ENGINEER; six years' practical experience as erector on steel and industrial plant work, buildings, furnaces, machinery, steel, brick, concrete and excavation wants to make change; will consider sales force; no experience. P. W. 367, Eng. News.

CIVIL ENGINEER, college graduate; 15 years' general municipal consulting engineering experience; water works a specialty; design and construction, earth, masonry, concrete, steel; reports, appraisals; excellent references; minimum salary, $150. P. W. 369, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER having successfully filled positions as designer, draftsman in charge, and assistant engineer, open for engagement. Can handle correspondence, some experience selling, fair knowledge shop and erection costs. Age 34. Reference from present employer covering 12 years. Could invest small amount. P. W. 332, Eng. News.

STRUCTURAL ENGINEER, Experienced designer, good executive, accustomed to handling men desires position as engineer or in charge of work; excellent references from past and present employers. P. W. 316, Eng. News.

STRUCTURAL ENGINEER, graduate, 10 years' experience, designing, detailing bridges, industrial plants, filtration, hydro-electric power. P. W. 285, Eng. News, Chicago.

STRUCTURAL DETAILER, two years' varied experience; moderate salary; location immaterial; technical graduate. P. W. 347, Eng. News.

STRUCTURAL CHECKER; 15 years detailing, designing and inspection; can take charge of work. P. W. 364, Eng. News.

Surveyors

INSTRUMENTMAN; year experience, field and office; three years at Mass. Inst. Tech. besides summer engineering camp. P. W. 365, Eng. News.

Draftsmen

STRUCTURAL DRAFTSMAN; M. I. T. graduate; first-class detailer; 2½ years with leading New York firm. Box 85, Barnstable, Mass.

DETAILER, structural steel, six years' experience skyscrapers and special structures, employed, desires change; location immaterial; available now; salary $25. P. W. 348, Eng. News.

STRUCTURAL-STEEL DRAFTSMAN, assistant superintendent erection; college and technical C. E. graduate M. I. T. 1912, age 27, single; position assistant to steel and concrete designer preferred. P. W. 371, Eng. News, Chicago.

DESIGNING ELECTRICAL and mechanical draftsman, technical graduate speaking German, French and Russian, with three years' experience in design and testing of electrical machinery desires position; location New York City or vicinity preferred. B. Halpern, care of Rosenberg, 69 East 97th St., New York City.

FIRST-CLASS DRAFTSMAN and designer, cranes, hoisting engines, shovel work, temporary or permanent. P. W. 340, Eng. News.

DRAFTSMAN, 29, single, technical graduate, years of experience on railroad construction, maintenance, at present in valuation work, efficient in every respect, desires change; moderate salary; references. P. W. 338, Eng. News.

Superintendents, Etc.

ESPECIALLY RELIABLE ENGINEER and good hustler on construction work with cost accounting and computing experience. P. W. 318, Eng. News.

SUPERINTENDENT desires position; 15 years' experience reservoir and dam construction, tunnel, trench and timber work; heavy masonry, concrete, stone cutting and quarry, earth, rock, pipe, sewers, road construction. P. W. 368, Eng. News.

FOREMAN CONCRETE CONSTRUCTION wants position; seven years' experience on bridge work; six years with one firm; A1 references; Pennsylvania or New Jersey preferred. P. W. 362, Eng. News.

CONTRACTOR'S SUPERINTENDENT AND ESTIMATOR; eight years' experience in railroad and general building construction; available July 1. P. W. 359, Eng. News.

SUPERINTENDENT wants position with company or corporation; 20 years' experience on construction work; 45 years old, married, sober and a hustler; best of letters and references; go anywhere; speak some Spanish; have worked in South and Central America. P. W. 350, Eng. News, Chicago.

SUPERINTENDENT with 20 years' experience on bridge foundations, hydro-electric developments, locks and dams, docks, tunnel driving and lining, open for position June 20; have good following of foreman and mechanics. P. W. 349, Eng. News, Chicago.

GENERAL ESTIMATOR on all trades in connection with general contracting; graduate civil engineer, superintending, etc.; 20 years' active experience. P. W. 341, Eng. News.

SUPERINTENDENT OF CONSTRUCTION, experience in buildings of all kinds, manufacturing plants, water-works, sewage disposal, sewers, tunnels, bridges, viaducts; good on equipment to handle the work; age 36. P. W. 373, Eng. News.

FIRST-CLASS CHECKER, ten years' experience bridges and buildings desires position; location immaterial. P. W. 336, Eng. News.

ENGINEERING PUBLICITY WORK—An opportunity to develop the personal contact end of some public utility, or any position in which tact and the ability to deal with people are prime requisites and a technical education would be an advantage. P. W. 361, Eng. News, Chicago.

GENERAL FOREMAN OR FOREMAN on buildings, sewage disposal, water-works, bridges, piers, tunnels; am wide awake; can handle any part of the work. P. W. 372, Eng. News, Chicago.

ENGINEER recently resigned as chief engineer large corporation in Central America desires position in United States, preferably Middle West; 6½ years' previous meritorious service Panama Canal and Panama R.R.; Associate Member American Society of Civil Engineers; member American Railway Engineering Association; age 31; can report at once; wire communications G. K. Cooper, Marquette, Mich.

POSITIONS OPEN

CONSTRUCTION SUPERINTENDENT for reinforced-concrete building; state experience and salary expected. P. 357, Eng. News.

FIRST-CLASS BUILDING SUPERINTENDENT, experienced on reinforced-concrete work P. 353, Eng. News.

MECHANICAL ENGINEER for position as chief draftsman, or estimating and designing engineer, of mechanical department, by large corporation located Northeast; must have experience on moveable bridges, electric cranes or similar work; give full particulars of education, experience, references and salary required. P. 352, Eng. News.

REINFORCED CONCRETE—Experienced estimator and detail designer; must be accurate and reliable; capable taking entire charge of work in office contracting engineer; state full details, education, experience, age, salary, etc.; location Eastern Canada. P. 351, Eng. News.

MECHANICAL ENGINEER, first-class; must be competent draftsman, and have knowledge of tool designing and machine-shop practice; state age, experience, references and salary expected. P. 346, Eng. News.

FIRST-CLASS MAN who understands laying out steel plate for boilers, tanks and sheet-iron work; state age, experience and salary expected in writing. Farrar & Trefts, Inc., Buffalo, N. Y.

DRAFTSMEN familiar with use of transit; state experience and submit sample of lettering. P. O. Box 93, Elizabeth, N. J.

Employment Agencies

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TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

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SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

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WANTED

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ENGINEERS, ARCHITECTS, CONTRACTORS—Cheapest concrete hardener on market; durable, dustless floors ⅛c. sq.ft.; formula and full information, $5. Singleton-Turner Co., 3802 Ashland Ave., St. Louis.

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ROTARY PUMP patent of June, 1914, for steam, air or water; inventor desires sell outright. H. S. Walker, Sherrill, N. Y.

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of instruction and practical work in designing and estimating the cost of structures of steel and reinforced concrete have been prepared by a well known Consulting Engineer,

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These courses are *not* a duplication of the work given in technical colleges on these subjects, and are *not* a re-hash of matter taken from text books. This work differs from either because it gives the short concise practical methods actually used by engineers in such work, supplemented by labor saving tables and diagrams. They

PROVIDE ACTUAL EXPERIENCE

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Address M. 180, Engineering News

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ADVERTISERS' NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

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GIVIN Co., Herbert, 30 Church St., N. Y. City.
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SOUTHERN Iron & Equipment Co., Atlanta, Ga.

STALLEY, G. T., Box 390, Cleveland, Ohio.

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2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

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Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

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1—Ingersoll-Sergeant Class "E-1" 236 Cu. Ft. Belt Driven. —SAMPSON.

1—Blake 380 Cu. Ft. Duplex Steam Comp.; 1—Ing.-Serg. Class "F" 233 Cu. Ft. Straight Line Steam Driven.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

1 Westinghouse 100 cu.ft. motor driven with governor to automatically regulate the air pressure; in good condition; reason for selling, too small.—MICHELIN.

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1—14″ and 1—16″ 50′ centers.—GIVIN.

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5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72″x20′, 1—78″x20′, 1—72″x18′, 1—72″x15′, 1—72″x 14′, triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 50, 60 and 80 H.P. locomotive boilers.—PIPE.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

1 "Haiss' ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed.—GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

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300 ft. cableway, everything complete with Mundy engine. Price $600.—F. S. 375, Eng. News.

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[Standard Gauge]

10—16 yd. steel K. & J. air dump; 1 Oliver spreader.—LANE.

[36″ Gauge]

40 Western 4 yd. dump, $2000 each.—F. S. 333, Eng. News.

[24″ Gauge]

10—1 yd. swivel end dump cars.—PIPE.

12 Koppel 1¼ yd., steel V shape.—GRIMSHAW.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 Climax Portable plant complete, A1.—GIVIN.

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1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

125′ boom, 35 ton cap. steel stiff leg with bull wheel; 4-section boom; removal mid-section adds capacity. Mast 75′, sills 58′, stiff legs spread 68′. High grade for yard or erecting work. Quick sale price.—TITAN.

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Hydraulic and dipper. Sale or charter.—GIVIN.

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1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

EXCAVATORS

⅓ cu.yd. and up. Traction. Ideal for cellars, trenching grading.—TITAN.

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Western Electric 100 K.W. dir, con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

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2 Fire Engines, condition, first class.—HITNER'S.

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1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

6 Lidgerwoods—4—7x10 D.C. D.D. with boilers; 1—7x10 D.C. D.D. skeleton with swinger; 1—6¼x8 skeleton.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers: 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

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Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE, Inc., Engineering Supplies, Dept. E, 918 Chestnut St., Phila.

$175 K & E No. 5025 Precision 3 screw Y level, new, $133; $220 K & E 5040 Fine Tr., good working order, $125—Guaranteed. 99 others. Rentals, repairs, supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

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[Standard Gauge]

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

40-ton Climax geared, rebuilt; like new.—DALLETT.

2—40 ton saddle tank American.—LANE.

[36″ Gauge]

10 10x16″ Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14″ Porters.—SOUTHERN.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

Have 15 from 7 to 20 tons, all makes.—GRIMSHAW.

1—10x16 Vulcan in good order; 2—10x16 American, excellent condition.—PEIRCE.

[24″ Gauge]

7 ton, 6x10″ Porter, overhauled.—GRIMSHAW.

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4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

1—7 Ton, 4 wheel, Industrial, 21′ boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20′ boom, goose neck.—HITNER'S.

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

1—45 ft. 4-wheel Industrial.—WHITNEY.

4 or 8 wheel 5 to 40 ton capacities.—TITAN.

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Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

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Standard, ⅓ yd., gasoline engine.—DALLETT.

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15 H.P. Westinghouse 24 volt d.c. motor.—RUGGLES.

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5000 pcs. Lackawanna, Carnegie and Wemlinger, various lengths.—GRIMSHAW.

165 pcs. Lackawanna 14″ arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

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Wrought with new threads and couplings, all sizes.—PIPE.

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5000 lin.ft. 36″ diameter riveted steel pipe, 3/16″ plate, tested 75 lbs. pressure; used short time and now in good condition.—H. S. KERBAUGH, INC., 6 Church St., New York, N. Y.

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1 Cameron 3½x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

RAILS

40 ton of 35 lb. with fish plates.—PIPE.

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ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1 Tandem paving roller in excellent condition. Low price for quick sale. Write F. S. 296, Eng. News.

1—10 ton Iroquois 3-wheel tandem; cheap before removal. —L. F. SEYFERT'S SONS, INC., 437 N. 3d St., Phila., Pa.

5-ton Buffalo-Pitts tandem steam, A1 order. For further particulars apply WILLIAM MEARS, Rumson, N. J.

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2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

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Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

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50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

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Have 25 from ⅝ to 5 yd., all makes.—GRIMSHAW.

1—90 ton Marion Model 75, Shop No. 2194, rebuilt and fitted throughout with steel cut gears.—LANE.

Several Thew, Bucyrus, Marion Osgood traction.—PEIRCE.

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One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

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2 Keystone well drills, in splendid condition.—PEIRCE.

Wanted

Macadam roller at a bargain, size 10-ton. Send price and other information to W. 297, Eng. News.

First-class 15-20 ton 8-wheel loco. crane.—W. 305, Eng. News.

12 H.P. gasoline engine suited to driving a ¾ yd. Ransome mixer.—RUGGLES.

To lease steam or air hammer to drive 38 lb. 30 ft. steel sheet piling. McKiernan-Terry Drill Co. size No. 3 will do.—F. D. BUFFUM, Jenkins Arcade, Pittsburgh, Pa.

3-drum hoisting outfit, double cylinder, 9x12 or 10x12, without boiler, in good condition. Give full particulars as to condition, price and where it can be nspected. Reply GEO. BLYTH, care Kellogg & Miller, Amsterdam, N. Y.

To buy, one ½ yd. clam-shell bucket. State price, location, etc.—THE KIRCHNER CONSTRUCTION CO., 221 West Ninth St., Cincinnati, Ohio.

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mean longer life and fewer repairs—faster work and larger profits. Every machine built as a unit—engine especially designed to fit the mixer it is to drive and direct connected to the drum requiring only one chain with a self-adjusting friction clutch.

Built in 5, 8, 11, 12, 15, 22, 30, and 40 cu. ft. capacities, with both steam and gasoline power.

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Making Records on Large and Small Jobs

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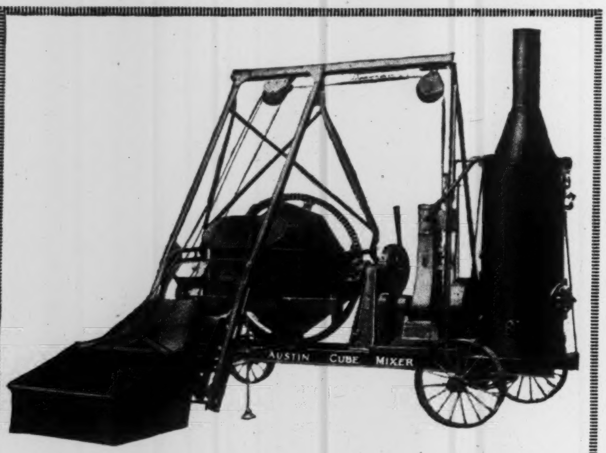
The Automatic Concrete Mixer Co. Providence, R.I.



Denser, Stronger Concrete and More of it with the

Austin Improved Cube Mixer

Tests on completed work—big projects like the Detroit River Tunnels and the Panama Canal—have shown that AUSTIN-Mixed Concrete develops great strength and hardness. Engineers attribute this result to the thorough mixing attained by the AUSTIN CUBE MIXER.

The Austin turns out three batches of this *extra-dense, extra-waterproof extra-strong concrete* to any other mixer's two batches.

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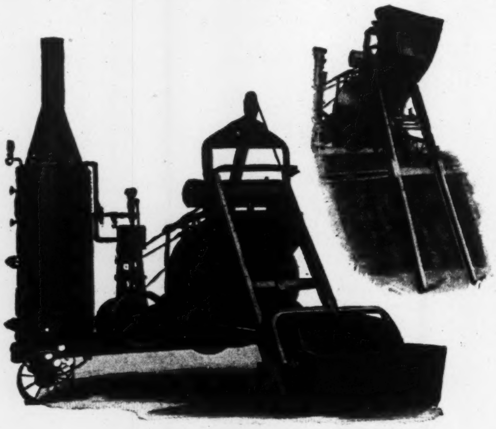
Agents wanted in open territory.



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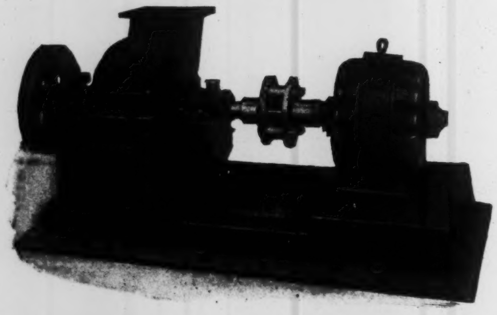
Hodson-Feenaughty Co., 309 East Yamhill St., **Portland, Ore.**

(Made by Foote Mfg. Co., Nunda, N. Y.)

Every Testing Laboratory should be Equipped with This Labor Saving Machine



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is a Compact—Simple, Efficient and Economical Equipment for reducing Coal, Soft Ores, etc., to a fine, uniform size for testing purposes.

Bulletin No. 46-23 will give you the details—Complete. Write for your copy.

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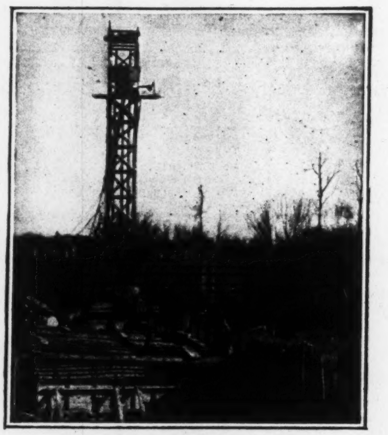

The efficiency of the Insley Plant throughout represents years of specialized development.

INSLEY MFG. COMPANY

Engineers and Manufacturers

INDIANAPOLIS, INDIANA

Bids received until July 12, 1915.

County Highway Tunnel

OFFICE OF THE CONTROLLER OF ALLEGHENY COUNTY.

Pittsburgh, Pa., June 1st, 1915.

Sealed proposals will be received at this office until 1:30 o'clock P.M., Monday, July 12th, 1915, and will at that time be publicly opened by the County Commissioners, for the construction of a tunnel and the approaches thereto, known as "County Highway Tunnel No. 1," extending from the southerly side of East Carson Street near Third Street, Pittsburgh, in a southerly direction to a point on Warrington Avenue, near Boggs Avenue, Pittsburgh, Pa. The proposals submitted must be on the blank form of proposals which are bound with the contract, specifications and information for bidders, and must be addressed to the County Commissioners of Allegheny County, Pennsylvania, and deposited with the County Controller, marked "Proposal for County Highway Tunnel No. 1." Proposals must be accompanied by a certified check in the sum of One Hundred Fifty Thousand ($150,000.00) Dollars, made payable to the Commissioners of Allegheny County, to be returned to the unsuccessful bidders three days after the awarding of the contract. Within ten (10) days after receiving final notice of the awarding of the contract, the successful bidder will be required to execute the contract and furnish a proper surety bond, satisfactory to and to be approved by the County Commissioners, in the sum of Fifty (50%) per centum of the amount of the contract price, conditioned for the faithful performance of all the terms and provisions of the contract.

Copies of the form of proposal, contract and information for bidders and copies of the plans and specifications may be obtained at the office of A. D. Neeld, Consulting Engineer for the County of Allegheny, at No. 237 Fourth Avenue, Pittsburgh, and at the office of the County Commissioners, Court House, Pittsburgh, Pa., on and after June 7th, 1915. Those desiring to bid may have plans and specifications upon the deposit of Twenty-five ($25.00) Dollars, which will be refunded if said plans and specifications are returned in good condition within ten (10) days after the bids have been received and acted upon by the County Commissioners.

The County Commissioners reserve the right to reject any and all bids.

HYATT M. CRIBBS,
County Controller for the County of Allegheny.

⁂

Bids received until June 29, 1915.

Power House Improvements

Middletown, N. Y.

Sealed proposals for additions and alterations to Power House for Power House Equipment, construction, heating, plumbing and electric work at the Middletown State Homeopathic Hospital, Middletown, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 2:30 o'clock P.M. on Tuesday, June 29, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the following amounts: For construction work, $250.00; heating work, $4,500.00; plumbing work, $100.00; electric work, $175.00. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty (50%) per cent. of the amount of contract within thirty (30) days after official notice of award of contract, and in accordance with the terms of specifications Nos. 2275, 2261, 2262 and 2263. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Middletown State Homeopathic Hospital, Middletown, N. Y., at the New York office of the Department of Architecture, Room 1224 Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposals may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00, made payable to the State of New York for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

E. S. ELWOOD, Secy., State Hospital Commission.
Dated Albany, N. Y., June 7, 1915.

PROPOSALS FOR LEVEE WORK—Mississippi River Commission, 1st & 2d Districts, Room 20, Custom House, Memphis, Tenn., June 4, 1915.—Sealed proposals for constructing about 700,000 cubic yards of levee work in the Lower St. Francis Levee District will be received at this office until 11 a.m., June 26, 1915, and then publicly opened. Information upon application. E. M. MARKHAM, Maj., Engrs.

Bids received until June 24, 1915.

Main Channel Excavation

THE SANITARY DISTRICT OF CHICAGO.
TO CONTRACTORS.

Sealed proposals indorsed "Proposals for Main Channel Excavation" will be received by the Clerk of The Sanitary District of Chicago at the office of said District, Room No. 700, 910 South Michigan Avenue, Chicago, Illinois, until 12 M., standard time, June 24, 1915, and will be publicly opened by the Board of Trustees of said Sanitary District at a meeting to be held on that day, or at the first meeting thereafter.

The work for which said tenders are invited consists of the excavation of the North Bank of part of the Main Channel of the Sanitary District of Chicago, in the City of Chicago, the Township of Stickney and the Township of Lyons, in the County of Cook, State of Illinois.

The approximate quantity of excavation which will be used in comparison of proposals is 175,000 cubic yards.

Proposals for the work herein mentioned may be made under two alternatives: Alternative 1 includes disposing of excavated material upon the berm adjacent to the work, or removing same from the site of the work; Alternative II includes removing all excavated material from the site of the work. The Sanitary District may award a contract under either alternative, as it may elect.

All proposals must be made upon blank forms of proposal furnished by said Sanitary District, and shall be made in accordance with and to conform to all the terms and conditions set forth in "Requirements for Bidding and Instructions to Bidders," attached thereto. A deposit of Five Thousand Dollars ($5,000.00) is required with each proposal submitted.

Specifications, contract, forms of proposal and plans may be obtained upon the deposit of Five Dollars ($5.00) at the office of the said Sanitary District, which sum so deposited will be refunded if said plans and specifications are returned in good order on or before July 24, 1915.

The said Board of Trustees reserves the right to reject any or all proposals.

THE SANITARY DISTRICT OF CHICAGO,
By THOMAS A. SMYTH,
President of its Board of Trustees.

Attest: JOHN McGILLEN, Clerk.
Chicago, June 7, 1915.

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Bids received until June 24, 1915.

North Shore Channel Improvement

THE SANITARY DISTRICT OF CHICAGO.
TO CONTRACTORS.

Sealed proposals indorsed "Proposals for North Shore Channel Improvement" will be received by the Clerk of The Sanitary District of Chicago at the office of said District, Room No. 700, 910 South Michigan Avenue, Chicago, Ill., until 12 M., standard time, June 24, 1915, and will be publicly opened by the Board of Trustees of said Sanitary District at a meeting to be held on that day, or at the first meeting thereafter.

The work for which said proposals are invited consists of the excavation of side slopes and construction of pile and timber protection on the North Shore Channel of the Sanitary District, in the City of Evanston and the Village of Wilmette, in the County of Cook, State of Illinois.

The following approximate items and quantities will be used in comparison of proposals:

(a) 150,000 cubic yards of Excavation.
(b) 9,500 lineal feet of Piles.
(c) 40,000 feet, board measure, of Timber.

All proposals must be made upon blank forms of proposal furnished by said Sanitary District, and shall be made in accordance with and to conform to all the terms and conditions set forth in "Requirements for Bidding and Instructions to Bidders," attached thereto. A deposit of Five Thousand Dollars ($5,000.00) is required with each proposal submitted.

Specifications, contract, forms of proposal and plans may be obtained upon the deposit of Five Dollars ($5.00) at the office of the said Sanitary District, which sum so deposited will be refunded if said plans and specifications are returned in good order on or before July 24, 1915.

The said Board of Trustees reserves the right to reject any or all proposals.

THE SANITARY DISTRICT OF CHICAGO,
By THOMAS A. SMYTH,
President of its Board of Trustees.

Attest: JOHN McGILLEN, Clerk.
Chicago, June 7, 1915.

Bids received until June 24, 1915.

Calumet Intercepting Sewer

CONTRACT NO. 2
THE SANITARY DISTRICT OF CHICAGO.
TO CONTRACTORS.

Sealed proposals, endorsed "Proposals for Calumet Intercepting Sewer, Contract No. 2," will be received by the Clerk of The Sanitary District of Chicago at the office of said District, 700, 910 South Michigan Avenue, Chicago, Illinois, until 12 M., standard time, on Thursday, June 24, 1915, and will be publicly opened by the Board of Trustees of said District at a meeting to be held that day or at the first meeting thereafter.

The work for which said tenders are invited under Contract No. 2 includes the construction of an intercepting sewer in open cut from the intersection of Baltimore Ave. and 97th St., along 97th St. to Torrence Ave., and south on Torrence Ave. to 99th St.

The entire work is located in the City of Chicago, County of Cook, State of Illinois.

The work covered includes excavation, backfilling, disposal of surplus excavation, concrete, reinforcing steel, brickwork, iron castings, structural steel, piling, sheeting, bracing, vitrified tile pipe and other material as specified.

All bids must be made upon blank forms of proposal furnished by the Sanitary District, and shall be made in accordance with and to conform to the terms and conditions set forth in "Requirements for Bidding and Instructions to Bidders," attached thereto.

Specifications, forms of proposal and plans may be obtained upon deposit of Ten Dollars ($10.00) at the office of said Sanitary District, which sum so deposited will be refunded if said plans and specifications are returned in good condition within thirty days following the opening of bids.

The Board of Trustees reserves the right to reject any or all proposals.

THE SANITARY DISTRICT OF CHICAGO.
By THOMAS A. SMYTH,
President of its Board of Trustees.
Attest: JOHN McGILLEN, Clerk.
Chicago, June 1, 1915.

⁂

Bids received until July 1, 1915.

Proposals for Street Paving

Lebanon, Penn., June 15, 1915.

Sealed proposals will be received by the Mayor and Council of the City of Lebanon, Pa., until 5 o'clock P.M. on the 1st day of July, 1915, for furnishing all materials and doing all work necessary for the complete construction of about 4,000 square yards of street paving on 8th Street between the N. side of the tracks of the Philadelphia & Reading Railroad Co. and the N. side of Lehman Street. Separate proposals for the paving of 9th Street from the S. side of Chestnut Street to near the S. rail of the Philadelphia & Reading Railroad Co.'s tracks, comprising about 12,400 square yards of pavement, and a separate proposal on Lehman Street from the E. side of 4th Street to the W. side of 9th Street, comprising about 8,300 square yards of pavement. The above quantities are approximate only.

Specifications, forms of proposals, envelopes, etc., may be obtained from the office of the City Engineer. A certified check on a solvent bank must accompany each bid. Three hundred and sixty dollars for the 8th Street, Eleven hundred dollars for the 9th Street and Seven hundred and fifty dollars for the Lehman Street bid. All checks must be drawn in favor of the City of Lebanon, Pa. The payments for the cost of paving and curbing the said highways shall be from amounts to be collected by the City Treasurer from property owners whose land fronts or abuts on said highways upon the basis authorized, and that the City of Lebanon shall under no circumstances be held responsible for the payment of any part of the cost of said improvements except as to the cost of paving intersections of said streets and alleys and the paving or curbing in front of properties exempt by law from the paying of said improvements.

The right to reject any or all bids or parts of bids is hereby reserved. Address communications to

T. R. CROWELL, City Engineer.
Attest: DAN M. SHARP, **City Clerk.**

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U. S. ENGINEER OFFICE, **Room 802, Army Building, 39** Whitehall Street, New York City.—Sealed proposals for dredging in Hackensack River, N. J., and Channel north of Shooters Island, N. Y. and N. J., will be received here until 12 M., July 15, 1915, and then opened. Bids for one or both of these works will be considered. Information on application.

Bids received until July 7, 1915.

Pumps on Floats

Sealed Bids will be received by the Board of Water Supply, at its offices, twenty-second floor, Municipal Building, Park Row, Centre and Chambers Streets, New York City, until 11 A.M., on Wednesday, July 7, 1915, for Contract 140, for furnishing, delivering and erecting at Shafts 11 and 21 of the City tunnel of the Catskill aqueduct in the City of New York, drainage equipment for unwatering the tunnel and its shafts.

At the above place and time the bids will be publicly opened and read. Pamphlets containing information for bidders, and contract drawings can be obtained at the above address, at the office of the Secretary, by depositing the sum of ten dollars ($10) in cash or its equivalent for each pamphlet. For further particulars apply to the office of the Principal Assistant Engineer at the above address.

CHARLES STRAUSS, President,
CHARLES N. CHADWICK,
JOHN F. GALVIN,
Commissioners of the Board of Water Supply.
W. BRUCE COBB, Secretary.

⁂

Bids received until June 29, 1915.

Sewer Construction

Columbus, Ohio.

Bids will be received by Geo. A. Borden, Director of Public Service, until 12 o'clock noon, Central Time, Tuesday, June 29, 1915, for construction of

South Side Storm Sewer

Sizes 123" to 12"; approximately 5 miles; about 400 feet in tunnel; average cuts from 7 to 17 feet; estimated cost $250,000.00.

Maryland Avenue Storm Sewer

Sizes 84" to 30"; approximately 1.6 miles, average cuts from 6 to 16 feet; estimated cost $100,000.

Plans and specifications from Henry Maetzel, Chief Engineer, City Hall; $5.00 deposit.

⁂

Bids received until July 21, 1915.

Reinforced Concrete Buildings

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans at their office, Suite 200, New Orleans Court Building, until July 21, 1915, at 2 o'clock P.M., and then publicly opened, for the construction of reinforced-concrete buildings for the Cotton Warehouses and Terminal, including the two-story Wharf House, about 120 feet by 2000 feet, Warehouse "E" about 150 feet by 580 feet, with their attached runways and appurtenances, located on the Mississippi River near Valence Street, in New Orleans.

A deposit of $25,000 in cash or certified check is required with proposal. Bond of $300,000 required with contract.

Payments monthly to the extent of 90% of the Engineers' estimate of work accomplished, including allowance for a reasonable stock of material.

On and after June 10, 1915, plans and specifications will be on file at the office of Ford, Bacon & Davis, No. 921 Canal Street, New Orleans, La., by whom **full sets will be furnished** to prospective bidders, on deposit of $100, which will be refunded to depositors who submit proposals and return sets in good condition. To depositors who do not submit proposals $80.00 will be refunded on return of the set in good condition.

The right is reserved to reject any and all bids and to waive informalities.

(Signed) ERNEST M. LOEB, President.

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Bids received until July 12, 1915.

Water-Works Pump

Saltsburg, Pa.

Proposals will be received by the Borough of Saltsburg, Pa., for one Water-Works Pump, 500,000 gallons capacity in 24 hours, until July 12th, 1915.

Specification from

ROBT. H. WILSON,
Chairman, Water Committee.

⁂

OFFICE OF THE COMMISSIONERS, D. C., June 14, 1915.—Sealed Proposals will be received at this office, Room 509 District Building, until 2 o'clock P.M., on June 21, 1915, for the construction of Sewers in the District of Columbia, involving the construction of 1,700 linear feet of trunk sewer 4 foot 6 inch diameter; also 7,800 linear feet of pipe sewers, 10 inch to 21 inch diameter. Forms of proposals, specifications and necessary information may be obtained from the Chief Clerk, Engineer Department, Room 427 District Building, Washington, D. C. OLIVER P. NEWMAN, LOUIS BROWNLOW, CHARLES W. KUTZ, Commissioners, D. C.

Bids received until June 28, 1915.

Storm Sewer System

Kirksville, Mo.

Sealed proposals on blanks furnished by the City and addressed to the Mayor and City Council, Kirksville, Mo., will be received until 7 o'clock P.M., June 28, 1915, for furnishing all material and labor for the construction of a system of storm sewers in Joint Storm Sewer District Number Three of said City, as per plans and specifications adopted by them, as follows:

Approximately 257 lineal feet of 36-inch, 640 feet of 30-inch, 485 feet of 24-inch, 540 feet of 18-inch, 595 feet of 15-inch, 565 feet of 12-inch, 600 ft. of 10-inch storm sewer with all necessary manholes, catch basins and other appurtenances.

Each bid must be accompanied by a certified check for $600 made payable to the Mayor and City Council.

Plans and specifications may be seen at the office of the City Clerk or of the Engineer.

C. E. MURRELL, Mayor.
R. M. MILLER.
THOMAS RAINEY.

O. D. McKASSON, City Clerk.
C. V. DOWNING, Engineer.

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Bids received until June 28, 1915.

Water-Works Improvements

Borough of Media, Penn.

Sealed bids will be received by the Water Committee of Media, Delaware County, Penn., up to 3 o'clock, June 28th, 1915, for the following work:

2,000,000 gallon settling basin with reinforced-concrete retaining walls, 250 Hp. water tube boiler, wash water standpipe, 20 feet in diameter, 15 feet high, foundations, pipes and accessories.

Plans and specifications may be obtained from the Consulting Engineer, Mr. J. W. Ledoux, Chief Engineer of the American Pipe and Construction Company, 112 North Broad Street, Philadelphia.

M. C. MICHENER, Chairman Water Committee.

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Steel Viaducts

The Siamese Royal Railway Department invites bids for three steel viaducts. Specifications and drawings may be obtained from the Siamese Legation, Gloucester, Mass., on payment of fee of four dollars per set.

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DEPARTMENT OF THE INTERIOR, U. S. RECLAMATION SERVICE, Washington, D. C., June 12, 1915.—Sealed proposals will be received at the office of the United States Reclamation Service, Provo, Utah, until 2 o'clock P.M., July 15, 1915, for construction involving about 50,000 cubic yards of canal excavation, 8,000 cubic yards of rolled embankment, 3,000 cubic yards of excavation for structures, 950 cubic yards of reinforced concrete, and 525,000 square feet of canal lining. The work is located near Goshen, Utah, on the Tintic Branch of the Denver & Rio Grande Railroad. For particulars address the United States Reclamation Service, Provo, Utah, or Washington, D. C. MORRIS BIEN, Acting Director.

PROPOSALS FOR COAL.—U. S. Engineer Office, Wilmington, N. C.—Sealed proposals will be received here until 12 M., June 28, 1915, and then opened for furnishing about 13,000 tons of bituminous coal. Further information on application.

U. S. ENGINEER OFFICE, Room 707, Army Building, 39 Whitehall St., New York, N. Y.—Sealed proposals will be received here until 12 M., June 28, 1915, and then opened, for dredging in Newtown Creek, N. Y. Further information on application.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich.—Sealed proposals for furnishing and delivering at Sault Ste. Marie, Michigan, about 325 tons of steel, etc., for construction of Fourth Lock, will be received at this office until 12 noon, June 30, 1915, and then publicly opened. Information on application.

U. S. ENGINEER OFFICE, Room 305 Southern Building, Washington, D. C., May 27, 1915.—Sealed proposals for furnishing and delivering 300 tons, 25% more or less, Sulphate of Alumina will be received here until 12 M., June 26, 1915, and then publicly opened. Information on application.

PROPOSALS FOR REPAIRS, SOUTH DOCK, ETC.—Office Quartermaster, West Point, N. Y.—Sealed proposals will be received here until 12 M., June 30, 1915, and then opened, for reconstruction and repairs to South Dock and Ferry Slip. Further information application.

U. S. ENGINEER OFFICE, Newport, R. I., May 29, 1915.—Sealed proposals for rebuilding basin walls and repairing breakwaters and harbor walls at harbor at Block Island, R. I., will be received here until 12 o'clock noon, June 29, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

Bids received until July 2, 1915.

Road Repairs

Belvidere, N. J.

Sealed bids or proposals will be received by a committee of the Board of Chosen Freeholders of the County of Warren at the Court House in Belvidere, N. J., on Friday, July 2, 1915, at 11:45 A.M., for surface treatment of 194,000 square yards of the County Highways in Warren County, N. J., also for repairs to the macadam road leading from Hackettstown to Allamuchy.

Specifications for said work may be seen at the office of F. W. Salmon, County Engineer, Netcong, N. J., at the Union Square Hotel, Phillipsburg, N. J., and at the American House, Hackettstown, N. J., where blank forms for bids (which must be used) may be procured.

Each bid must be accompanied by a certified check made payable to the Director of the Board of Chosen Freeholders in the sum of Five Hundred Dollars ($500.00) to guarantee the proper execution of contract and bond by the successful bidder on demand.

The right is reserved to reject any or all bids.

Bids will be received at the time named and not before and not after.

J. R. THATCHER,
Director Board Chosen Freeholders.

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Bids received until June 28, 1915.

Concrete Bridge

Rockford, Ill.

Sealed proposals will be received until 1:30 o'clock P.M., June 28, 1915, by the Chairman of the Street and Alley Committee of the City Council of the City of Rockford for furnishing material and constructing a concrete bridge over Keith Creek at Kishwaukee Street, estimated cost $13,000.00. All in accordance with plans and specifications which will be furnished by the City Engineer upon request. The City reserves the right to reject any or all bids.

H. J. GALLAGHER,
Chairman Street and Alley Committee.

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Barge Canal Contract to Sub-Let

Mechanicville, N. Y.

Bid wanted on construction of approach wall to Lock No. 3, Mechanicville, New York, Barge Canal Contract No. 72A. Work will be let under subcontract. Full information given on request. JAMES STEWART & CO., INC., 30 Church St., New York, N. Y.

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SEALED PROPOSALS will be received at the Office of the Lighthouse Inspector, Charleston, S. C., until 12 o'clock noon, July 15, 1915, and then opened, for furnishing all materials, labor and constructing a creosoted timber wharf at the site of the new Lighthouse Depot on the Ashley River at Charleston, S. C. A deposit of $5.00 will be required for each set of plans and specifications. Blank proposals and particulars may be obtained by addressing the Lighthouse Inspector, Charleston, S. C.

PROPOSALS FOR RIPRAP STONE—U. S. Engineer Office, Philadelphia, Pa.—Sealed proposals will be received here until 12 noon, July 8, 1915, and then opened, for furnishing and placing riprap in Delaware River at Artificial Island. Further information on application.

SEALED PROPOSALS will be received at the Office of the Lighthouse Inspector, Tompkinsville, N. Y., until 2 o'clock p.m., July 9, 1915, and then opened, for furnishing labor and materials for erecting a reinforced-concrete carpenter shop at General Lighthouse Depot, Tompkinsville, N. Y. Blank proposals and particulars may be had by addressing the above office.

PROPOSALS FOR AIR-COMPRESSOR PLANT—U. S. Engineer Office, Pittsburgh, Pa.—Sealed proposals for furnishing and installing a water-power driven air-compressor plant, at Dam No. 10, Ohio River, will be received at this office until 12 M. (Eastern Standard Time), June 30, 1915, and then publicly opened. Information on application.

U. S. ENGINEER OFFICE, Savannah, Ga., May 21, 1915.—Sealed proposals for repairs to bank protection of Savannah River at Augusta, Ga., will be received at this office until 12 noon (Eastern Standard Time), June 21, 1915, and then publicly opened. Information on application. W. C. LANGFITT, Colonel, Engineers.

U. S. ENGINEER OFFICE, Room 707, Army Building, 39 Whitehall St., New York, N. Y.—Sealed proposals will be received here until 12 M., June 25, 1915, and then opened, for furnishing and placing riprap and repairing sea wall at Governors Island, N. Y. Further information on application.

PROPOSALS FOR CONCRETE SUPERSTRUCTURE.—U. S. Engineer Office, Buffalo, N. Y.—Sealed proposals will be received here until 11 a.m., June 23, 1915, and then opened, for construction of concrete superstructure on outer breakwater at Oswego Harbor, N. Y. Further information on application.

U. S. ENGINEER OFFICE, 540 Federal Building, Buffalo, N. Y., May 19, 1915.—Sealed proposals for construction of concrete superstructure on north pier, Erie Harbor, Pa., will be received at this office until 11 a.m., June 19, 1915, and then publicly opened. Information on application. L. V. FRAZIER, Captain, Engineers.

PROPOSALS FOR STRUCTURAL STEEL and Accessory Parts for Shed on Pier No. 7.—Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 a.m., July 12, 1915, at which time they will be opened in public, for furnishing or furnishing and erecting the above-mentioned articles. Blanks and general information relating to this Circular (No. 937) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State St., New York City; 614 Whitney-Central Bldg., New Orleans, La., and Fort Mason, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala., and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash. —F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

Classified Advertising

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 326, Eng. News.

MECHANICAL ENGINEER, 31, technical man with three years' shop training; six years' experience laying out manufacturing plants; specialist on production methods and labor-saving devices, arrangement of machine tools and manufacturing departments, savings in power, handling of material and increase of production; best of references from past employers and clients; can give part or whole time; New York or eastern Jersey preferred; good chance to get the man you need. P. W. 383, Eng. News.

Civil Engineers

WATER-SUPPLY, water power, dams, sewers; responsible charge, construction and design; present engagement soon terminates; age 34; Assoc. M. Am. Soc. C. E. P. W. 224, Eng. News.

CIVIL ENGINEER, age 34, graduate, Assoc. M. Am. Soc. C. E., experienced in the design and construction of reinforced concrete structures and who has traveled extensively and is able to meet people, desires position of responsibility. P. W. 354, Eng. News.

CIVIL ENGINEER, technical graduate, Assoc. M. Am. Soc. C. E.; 15 years' experience hydraulic construction, municipal work, management and construction of water-works; business experience; $3600; now employed. P. W. 345, Eng. News.

HIGHWAY ENGINEER, technical graduate; four years' experience, two years responsible charge, New York State and tropics; available at once; moderate salary. P. W. 344, Eng. News.

CIVIL ENGINEER; 28, single, American, technical, railroad location, design and construction, hydro-electric, water works, subways, tunnels, reports and estimates; tropics and north, speak Spanish. P. W. 261, Eng. News.

CIVIL ENGINEER, graduate, Assoc. M. Am. Soc. C. E., 15 years' experience, responsible charge general construction, railroads and municipal improvements, surveys, expert computer, have instruments. P. W. 284, Eng. News.

CIVIL ENGINEER, Assoc. Mem. A. S. C. E., 18 years' experience, municipal roads, bridges, reinforced concrete. Complete outfit, both office and field. References. P. W. 329, Eng. News, Chicago.

CIVIL ENGINEER, graduate with high reference, twenty years' experience surveys, design, construction, railways, bridges, tunnels, foundations and hydraulic works open to engagement. P. W. 307, Eng. News.

GRADUATE CIVIL ENGINEER, just finishing his M. S. degree, desires position; location immaterial; salary secondary consideration. P. W. 342, Eng. News.

CIVIL ENGINEER, technical graduate, desires position; 11 years' experience steam and electric railway maintenance and construction, reinforced-concrete bridge construction, large drainage canal work, difficult swamp drainage surveys; speaks and writes Spanish fluently; references; location immaterial. P. W. 360, Eng. News.

GRADUATE CIVIL ENGINEER, 20 years' experience in charge irrigation, drainage, hydraulic and railroad construction, also valuation engineer public utilities, now finishing important work, wishes employment. P. W. 272, Eng. News.

CIVIL ENGINEER, college graduate; 15 years' general municipal consulting engineering experience; water works a specialty; design and construction, earth, masonry, concrete, steel; reports, appraisals; excellent references; minimum salary, $150. P. W. 369, Eng. News.

A CIVIL ENGINEER who for the past four years has been in charge of making the transmission line and flowage land surveys and maps for a big water power development desires engagement on similar work after July 1. P. W. 380, Eng. News, Chicago.

CIVIL ENGINEER, technical training, four years' experience on highway and city work; desires position on either. Joseph R. Murphy, Charlotte, Tenn.

CONSTRUCTION CIVIL ENGINEER; six years' practical experience as erector on steel and industrial plant work, buildings, furnaces, machinery, steel, brick, concrete and excavation, wants to make change. P. W. 389, Eng. News.

CIVIL ENGINEER, graduate; six years' experience with engineers and contractors; railroads, sewers, power plants, subways. P. W. 398, Eng. News.

CIVIL ENGINEERING student, good technical knowledge, desires minor position in surveying corporation. P. W. 394, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER having successfully filled positions as designer, draftsman in charge, and assistant engineer, open for engagement. Can handle correspondence, some experience selling, fair knowledge shop and erection costs. Age 34. Reference from present employer covering 12 years. Could invest small amount. P. W. 332, Eng. News.

STRUCTURAL ENGINEER, Experienced designer, good executive, accustomed to handling men desires position as engineer or in charge of work; excellent references from past and present employers. P. W. 316, Eng. News.

STRUCTURAL CHECKER; 15 years detailing, designing and inspection; can take charge of work. P. W. 364, Eng. News.

BRIDGE AND STRUCTURAL ENGINEER, Cornell University graduate, with long experience, is open for engagement; would teach. P. W. 382, Eng. News.

STRUCTURAL CHECKER, ten years' experience, bridges and buildings. Capable taking charge. Moderate salary. P. W. 388, Eng. News.

STRUCTURAL and ARCHITECTURAL ENGINEER. Experienced as engineer of construction and maintenance of factories of largest type. Experienced designer all kinds of building, factory, and bridge work. Good executive. Desires change of location. P. W. 397, Eng. News.

Surveyors

INSTRUMENTMAN; year experience, field and office; three years at Mass. Inst. Tech. besides summer engineering camp. P. W. 365, Eng. News.

RODMAN, 21, single, and does not use whisky nor cigarettes, wants job immediately. Location immaterial. two years on railroad location, construction and valuation. Best references. Loy Golden, Newman, Ga.

TRANSITMAN AND DRAFTSMAN, twelve years' experience, topographical, municipal, one year mechanical drafting. P. W. 393, Eng. News.

Draftsmen

FIRST-CLASS DRAFTSMAN and designer, cranes, hoisting engines, shovel work, temporary or permanent. P. W. 340, Eng. News.

MECHANICAL DRAFTSMAN; 4 years' experience; technical education, moderate salary. P. W. 391, Eng. News.

ARCHITECTURAL DRAFTSMAN; 25 years old, technical graduate, 3 years' experience with engineer, desires work in New York. P. W. 392, Eng. News.

LADY desires position as draftsman in engineer's office; salary moderate; location anywhere. P. W. 378, Eng. News, Chicago.

Superintendents, Etc.

SUPERINTENDENT desires position; 15 years' experience reservoir and dam construction, tunnel, trench and timber work; heavy masonry, concrete, stone cutting and quarry, earth, rock, pipe, sewers, road construction. P. W. 368, Eng. News.

FOREMAN CONCRETE CONSTRUCTION wants position; seven years' experience on bridge work; six years with one firm; A1 references; Pennsylvania or New Jersey preferred. P. W. 362, Eng. News.

CONTRACTOR'S SUPERINTENDENT AND ESTIMATOR; eight years' experience in railroad and general building construction; available July 1. P. W. 359, Eng. News.

SUPERINTENDENT with 20 years' experience on bridge foundations, hydro-electric developments, locks and dams, docks, tunnel driving and lining, open for position June 20; have good following of foreman and mechanics. P. W. 349, Eng. News, Chicago.

SUPERINTENDENT of construction, practical experience in concrete buildings, manufacturing, filtration, sewage disposal plants, bridges, piers, track elevation, capable of handling large force of men and getting results erecting construction plants, age 36. P. W. 399, Eng. News.

WORKING SUPERINTENDENT or foreman of construction concreting excavating, farms building, pipe laying, erecting equipment, can handle anything in the line of construction; can get results from men and equipment; no boozer; on the job; what have you to offer? P. W. 400, Eng. News.

CARPENTER FOREMAN or general foreman of construction of carpenter and concrete work; experienced in building and miscellaneous contracting work. A-1 reference, location immaterial. P. W. 395, Eng. News.

DIPPER DREDGE CAPTAIN, 12 years' experience harbor-canal scow work; nothing but year around position considered, can give references. P. W. 390, Eng. News.

TECHNICAL GRADUATE, 25, wants position, estimator, assistant engineer or timekeeper; two years' experience. P W. 396, Eng. News.

STENOGRAPHER, eight years' engineer office experience; thorough knowledge Government contracts and specifications; understands drafting; double entry bookkeeper. Tryon, 17 Woodland Ave., Woodhaven, N. Y.

A GOOD OPPORTUNITY is offered firm of high standing to secure the services of a mechanical engineer who has been engaged for several years in designing and manufacturing a well known line of special goods used largely in structural work; he controls some valuable patents covering these goods and can furnish some capital; highest references and full particulars to principals who mean business. Address "Success," P. W. 327, Eng. News.

SUPERINTENDENT OF STREET PAVING; ten years' experience in Eastern cities and familiar with city hall affairs. P. W. 379, Eng. News.

SALES ENGINEER, technical man, 30; six years with firm consulting engineers in New York City; large acquaintance among manufacturers, consulting and industrial engineers, and mill architects in East; hustler and a man who can produce results; would like to represent manufacturer in East; have made good and can give best of references from past employers; if you want a live representative write at once. P. W. 384, Eng. News.

POSITIONS OPEN

MECHANICAL ENGINEER for position as chief draftsman, or estimating and designing engineer, of mechanical department, by large corporation located Northeast; must have experience on moveable bridges, electric cranes or similar work; give full particulars of education, experience, references and salary required. P. 352, Eng. News.

MECHANICAL ENGINEER, first-class; must be competent draftsman, and have knowledge of tool designing and machine-shop practice; state age, experience, references and salary expected. P. 346, Eng. News.

THE TOWN OF DARIEN, CONN., desires to secure the services of a highway commissioner. For further particulars address Board of Finance, Town of Darien, Conn.

SALESMAN wanted, a man of good habits and address, who has had experience selling portland cement in New York State, between Buffalo and New York; state experience, salary expected and particulars. P. 377, Eng. News.

Civil-Service Opportunities

Competitive examinations for the civil-service positions named below will be held on or up to the dates given. For detailed information, write the addresses specified.

CHIEF ENGINEER (male), $3000; examination June 23; for vacancy in the Public Utilities Commission; write to the State Civil Service Commission, Hartford, Conn.

SERVICE ENGINEER—During July, 1915, the Illinois State Civil Service Commission will hold an examination for service engineer under the Illinois Public Utilities Commission; open to male residents of Illinois over 25; salary $200 to $300 a month; duties include supervising routine service inspection of utility properties, special investigations as to service and preparation of orders in such cases; examination will be unassembled; applications must be on file by July 3, 1915. For application blanks and details address Illinois Civil Service Commission, Springfield, Ill.

TELEPHONE ENGINEER—During July, 1915, the Illinois State Civil Service Commission will hold an examination for telephone engineer under the Illinois Public Utilities Commission; open to male residents of Illinois over 25; salary $200 to $300 a month; duties include investigation of operating and rate making problems of telephone properties and preparation of orders in such cases; examination will be unassembled; applications must be on file by July 3, 1915. For application blanks and details address Illinois Civil Service Commission, Springfield, Ill.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

TECHNICAL and SCIENTIFIC TEACHERS, instructors and professors wanted for colleges and universities for next school year. If you desire first consideration and best results, file your application with our Educational Department now. H. H. Harrison & Co., 807 Association Bldg., Chicago.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

LABORERS—Immigrants of any nationalities supplied at short notice at any part of the United States; camps and commissary runner; promptness and systems are our success. People's Labor Agency, 88 Baxter St., New York.

WANTED

AGENTS AND SALESMEN

ENGINEER OR DRAFTSMAN to sell WINSLOW direct-reading, beam and reinforced concrete calculating SLIDE-RULES. Simple, quick. Good opportunity for first agent in each city. Henry W. Tomlinson, 62 East Van Buren St., Chicago.

MISCELLANEOUS

THE SCALES OF THE GILSON SLIDE RULE are 100 in. long; results of computations can be read to four figures; price with complete instructions, 50c. The Gilson Slide Rule Co., Niles, Mich.

BUSINESS OPPORTUNITIES

WILL SELL TO ENGINEER as active working partner half interest in well-established and equipped consulting engineering business located in Central South; excellent opportunity for right man with $7,500 for interest and capital; give age, education and experience; young man preferred; don't write unless you mean business. B. O. 356, Eng. News, Chicago.

WANTED—To buy established engineering business; prefer Middle West; would consider partnership in good firm. B. O. 381, Eng. News, Chicago.

THE CO-OPERATION of an enterprising and responsible contracting company is desired in the development and use of about one hundred thousand acres of fertile land in Louisiana, suitable for stock raising and general agriculture. Owners able to make very advantageous terms. Full particulars will be furnished to responsible parties. B. O. 402, Eng. News, Chicago.

REINFORCED CONCRETE ENGINEERS
and **STRUCTURAL STEEL DESIGNERS**

who are competent to do the work in these branches of engineering are always **WANTED.** A correspondence course of instruction, prepared and operated by a well-known Consulting Engineer (after many years' experience in these special branches of engineering) will fit you to find employment in the kind of engineering work that knows no "dull times." These courses provide "*actual experience*."

Address W. 374 Engineering News

WANTED
SOMETHING TO MANUFACTURE

I have a Machine Shop and Foundry located in center of coal, iron and lumber districts, well equipped, well organized from manufacturing to selling end. Responsibility all right—I want one or two perfected mechanical articles to manufacture and sell. Send cuts and full information.

G. H. PATTEN, 1901 Pine St., St. Louis, Mo.

For Sale
Second Hand Equipment

Rates: Less than 4 insertions 55 cents per line—4 to 11 insertions 50 cents per line—12 or more insertions 45 cents per line.

Equipment Wanted items appear at the end of this list.

N

ADVERTISERS' NAMES are abbreviated in most of these items. Complete names and addresses are as follows:

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CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
LANE BROS., Ltd., Box 154, St. Catharines, Ontario—All the equipment advertised was bought new and used less than two years. Located at Rochester, N. Y. Prices and details on application.
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LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal & Supply Co., 167 South St., N. Y. City.
MICHELIN Tire Co., Milltown, N. J.
NEW RIVER Co., The, Macdonald, W. Va.
PEIRCE-Schmidt Co., Inc., 704 Bulletin Bldg., Phila., Pa.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
ROBERTS Filter Mfg. Co., Inc., Darby, Pa.
RUGGLES-Robinson Co., 331 Madison Ave., New York, N. Y.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHOLL Co., Julian, 126 Liberty St., New York, N. Y.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.

STALLEY, G. T., Box 390, Cleveland, Ohio.
TITAN Equipment Co., 30 Church St., N. Y. (Cort. 1111.)
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—Ingersoll-Rand H-3, 1000 Cu. Ft. Compound Steam Compound.—SAMPSON.

1—WB-2 Sullivan 909 Cu. Ft. Tandem Steam Driven Compound.—SAMPSON.

1—Rand Class "C" 527 Cu. Ft. and 2—Rand Class "C" 98 cu. ft. straight Line steam Driven.—SAMPSON.

1—Imperial XB-2, 1312 Cu. Ft. and 1—Imperial XB-2, 1190 Cu. Ft. Compound Belt Driven.—SAMPSON.

1—Ingersoll-Sergeant Class "E-1" 236 Cu. Ft. Belt Driven. —SAMPSON.

1—Blake 380 Cu. Ft. Duplex Steam Comp.; 1—Ing.-Serg. Class "F" 233 Cu. Ft. Straight Line Steam Driven.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap. 1540 cu. ft.—HITNER'S.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

American 10x10x10 straight line, steam driven, cap. 236 cu.ft.; Ingersoll-Rand 8x8x8 straight line, steam driven, cap. 100 cu.ft.; Clayton 8x8x7 duplex, cap. 150 cu.ft.—MARINE.

1 Westinghouse 100 cu.ft. motor driven with governor to automatically regulate the air pressure; in good condition; reason for selling, too small.—MICHELIN.

3—24"x24"x30" S. L. Rand steam driven, $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

BELT CONVEYORS

1—14" and 1—16" 50' centers.—GIVIN.

BLOCKS, GRANITE

About 25,000, splendid condition.—F. S. 385, Eng. News.

BOILERS

5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 50, 60 and 80 H.P. locomotive boilers.—PIPE.

4—125 H.P. and 2—150 H.P. Horizontal return tubulars, butt strapped, triple riveted.—MARINE.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Hayward 1⅝ yd., Mead & Morrison 1½ yd., Smith 1 yd. and Union Iron Works ¾ yd. clam shells; Hayward 7 cu.ft. orange peel; 10—Steubner 1¼ yd. "Excelsior" bottom dump concrete.—MARINE.

CARS

[Standard Gauge]

10—16 yd. stl. K. & J. air dump; 1 Oliver spdr.—LANE BROS.

[36" Gauge]

40 Western 4 yd. dump, $2000 each.—F. S. 333, Eng. News.

[24" Gauge]

10—1 yd. swivel end dump cars.—PIPE.

12 Koppel 1¼ yd., steel V shape.—GRIMSHAW.

CARTS

4—1 yd. steel narrow gauge dump; also steel concrete carts, etc.—ROBERTS.

CRUSHERS

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 Climax Portable plant complete, A1.—GIVIN.

Gates No. 5, style K, with elevator & screen.—GRIMSHAW.

DERRICKS

1 steel stiff leg 70 ft. boom with cast steel bull wheel, capacity 25 tons.—MARINE.

125' boom, 35 ton cap. steel stiff leg with bull wheel, 4-section boom; removal mid-section adds capacity. Mast 75', sills 58', stiff legs spread 68'. High grade for yard or erecting work. Quick sale price.—TITAN.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

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1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

EXCAVATORS

¼ cu.yd. and up. Traction. Ideal for cellars, trenching, grading.—TITAN.

GENERATORS

Western Electric 100 K.W. dir. con. to 14x14 engine, 240 volts; 2 Western Electric 60 K.W. belt, 125 volts.—MARINE.

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

HOISTING ENGINES

2—3 drum Nationals, one 10x12 and one 8¼x10, with boilers; Lambert 8½x10 D.D.D.C. Skeleton; 7½x10 D.D.D.C. Skeleton, 15 other makes and sizes.—MARINE.

6 Lidgerwoods—4—7x10 D.C. D.D. with boilers; 1—7x10 D.C. D.D. skeleton with swinger; 1—6¼x8 skeleton.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7¼x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

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Second-Hand Transits, Levels, etc. Bought, sold or exchanged. Send for list of Second-Hand Instruments. Get our prices before ordering. WILLIAMS, BROWN & EARLE Inc., Engineering Supplies, Dept. E. 918 Chestnut St., Phila.

$190 Sala Lt. Mt. transit V circle, good cond., $115; $100 Buff & B. Engrs. Dumpy level, inverting, fine, $70. Guaranteed. 99 others. Rentals, repairs, supplies.—ARCHITECTS' & ENGINEERS' SUPPLY CO., Kansas City, Mo.

LOCOMOTIVES

[Standard Gauge]

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

40-ton Climax geared, rebuilt; like new.—DALLETT.

2—40 ton saddle tank American.—LANE BROS.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

1—10x16 Vulcan in good order; 2—10x16 American, excellent condition.—PEIRCE.

6x10, 7x12, 9x14, 10x16, 11x16", all makes.—GRIMSHAW.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S

15 ton excellent condition, cheap.—STALLEY.

4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

1—10 ton 4 wheel Brown hoist, A1 condition; low price for quick sale.—GIVIN.

1—45 ft. 4-wheel Industrial.—WHITNEY.

4 or 8 wheel 5 to 40 ton capacities.—TITAN.

MIXERS (Asphalt and Concrete)

Hadsel 2 yd. Batch with engine; Ransome ¾ yd. with engine and hopper; Foote Continuous No. 2½, 7½ H.P. motor, D.C. on wheels.—MARINE.

Portable plant, complete capacity 300-600 yds. per day: rare bargain.—LINES FLYNN.

1 Eureka continuous 3 H.P. D.C. motor; 2 Austin cubes with engines and boilers on steel skids; 2½ Smith with engine on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

Standard, ⅓ yd., gasoline engine.—DALLETT.

1 yd. Smith concrete, engine, boiler, elevator.—ROBERTS.

MOTORS

1—50 H.P. General Electric motor.—LANE BROS.

15 H.P. Westinghouse 24 volt d.c. motor.—RUGGLES.

PILE-DRIVING PLANT

Consisting of one floating pile driving machine, 2 for land work and all necessary equipment to operate same. All in good condition.—HUGH HART, 150 Pearsall St., L. I. City, N. Y.

PILING, SHEET STEEL

5000 pcs. Carnegie, Lackawanna, Wemlinger.—GRIMSHAW.

165 pcs. Lackawanna 14" arch web, 22 and 24 ft. lengths, used once, excellent condition.—37 Dun Bldg., Buffalo, N. Y.

PIPE

Wrought with new threads and couplings, all sizes.—PIPE.

300,000 rethreaded wrought, sizes ¾" to 24".—MARINE.

PUMPS

1 Cameron 3½x2x4 Steam pump.—SAMPSON.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

RAILS

40 ton of 35 lb. with fish plates.—PIPE.

ROAD BUILDING OUTFIT

Cheap for Cash—Complete crushing outfit, including new steam drills; also 8-ton gasoline road roller & grader which, if desired, will be sold independently of crushing outfit. All located at or near Loudon, Tenn. For full information address H. L. Kay Construction Co., James Bldg., Chattanooga, Tenn.

ROAD ROLLERS

2—10 ton Buffalo Pitts, practically new.—GIVIN.

1—8 ton Iroquois, used two months.—GIVIN.

2—5 ton Iroquois, perfect condition.—GIVIN.

1—10 ton Iroquois 3-wheel tandem; cheap before removal. —L. F. SEYFERT'S SONS, INC., 437 N. 3d St., Phila., Pa.

5-ton Buffalo-Pitts tandem steam, A1 order. For further particulars apply WILLIAM MEARS, Rumson, N. J.

5-ton Iroquois, overhauled, $750.—GRIMSHAW.

5—6 ton tandem steam roller.—SCHOLL.

1 macadam roller, standard make, recently overhauled.—F. S. 386, Eng. News.

SEWER PLANTS

2—Complete Sewer Contractor's Plants, including compressors and locks.—LINES FLYNN.

STEAM SHOVELS

Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

2—65 ton, Bucyrus, 2½ Yd. dippers, $3000 each.—HITNER'S.

50 steam shovels, all makes and sizes; some used only two months; rent or sale. Rare bargains. Everything sold is guaranteed.—CONTRACTORS S. CO.

18-B Bucyrus traction, used few weeks; Type "O" Thew traction, Mass. boiler, prime condition.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—14B Bucyrus traction revolving ⅝ yd.—GIVIN.

CABLEWAY FOR SALE

Flory 7 x 10 D.C. D.D. engine with reverse link motion and wood burning boiler; cables, 1,125 ft. 1¼ in. C.C.S: 1,100 ft. 9/16 in. C.C.C. hoisting line; 2,000 ft. 9/16 in. C.C.S. endless line and 500 ft. ¾ in A-frame galvanized guys. One 4 wheel cable carriage, two iron tip buckets, 1 cu.yd. capacity, two sets anchorages. All necessary sheaves, shafts, boxes, chain connections, clips, bolts, washers, etc. Three months light use; in good condition. Apply to

E. J. French or Robert Barrett, Cornish, N. H.

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Air Compressors
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Earth and Stone Handling Machinery

Air Dump Cars—Hand Dump Cars—Spreader Cars—Scrapers—Road Machinery—Portable Rock Crushers—Dump Wagons—Elevating Graders. Wagon Loaders and Ditchers. **Glad to send Catalogs.**

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Havana Office, Zulueta 36 D.

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PITTSBURGH, PA.

Contractors for Municipal and Industrial Filters, Water Softeners and Sewage Disposal Plants

Licensed Under Fundamental Negative Head Patents

1—90 ton Marion Model 75, Shop No. 2194, rebuilt and fitted throughout with steel cut gears.—LANE BROS.

Several Thew, Bucyrus, Marion Osgood traction.—PEIRCE.

Model 40 Marion, traction and standard trucks and Model A Marion, standard trucks.—LANE.

TRENCHING MACHINES

One No. 1 Austin, good shape and a bargain. BOYD & COOK, 1018 Reibold Bldg., Dayton, Ohio.

Potter drag bucket conveyor trench machine.—LANE.

WELL DRILLING MACHINES

2 Keystone well drills, in splendid condition.—PEIRCE.

Wanted

1 tandem paving roller; price must be right. Send information to W. 387, Eng. News.

First-class 15-20 ton 8-wheel loco. crane.—W. 305, Eng. News.

12 H.P. gasoline engine suited to driving a ¾ yd. Ransome mixer.—RUGGLES.

3-drum hoisting outfit, double cylinder, 9x12 or 10x12, without boiler, in good condition. Give full particulars as to condition, price and where it can be inspected. Reply GEO. BLYTH, care Kellogg & Miller, Amsterdam, N. Y.

Large Manufacturing Company

with exceptional facilities for manufacturing heavy and light sheet metal work

Desires Additional Line

that will be required in large quantities. Willing to equip special factory if necessary.

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W. 376 Engineering News

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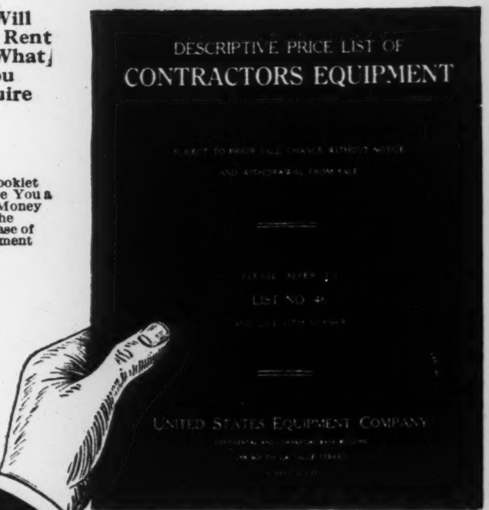

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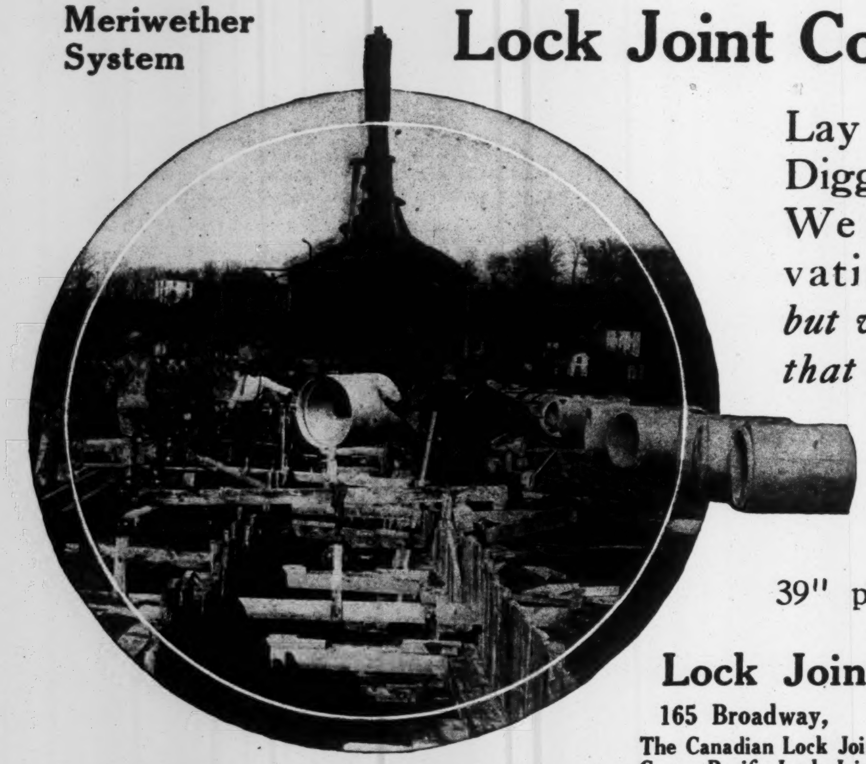

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Pittsburgh Filter Mfg. Co.
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THE NEW YORK CONTINENTAL JEWELL FILTRATION COMPANY

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Cast Iron Pipe

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Send us your orders. Our large stock, always on hand, guarantees prompt shipment. Write.

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NATIONAL **"NATIONAL" Pipe**

The Consumer's Guarantee of Quality—Ask for "National" Bulletin No. 11, "History, Characteristics and The Advantages of 'National' Pipe."

NATIONAL TUBE COMPANY, PITTSBURGH, PA.

American Pipe and Construction Co.
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112 North Broad Street, Philadelphia
Also Manufacture
Welded Wrought Iron Pipe, Lined and Covered with Pure Cement and Having Lead Caulked Bell and Spigot Joints
The only noncorrosive pipe on the market good for any pressure.

STANDARD

Cast Iron Bell and Spigot and Flange
PIPE FOR WATER AND GAS
Standard Fittings Heavy General Foundry and Machine Shop Work
STANDARD CAST IRON PIPE & FOUNDRY CO.
On Delaware River Bristol, Penna.

Nicholas Engel
JOHN FOX & CO.
Cast-Iron Water, Gas and Flange Pipe, Special Castings, Fire Hydrants, Valves, General Foundry and Machine Work.
253 BROADWAY NEW YORK CITY

Bids received until July 12, 1915.

County Highway Tunnel

OFFICE OF THE CONTROLLER OF ALLEGHENY COUNTY.

Pittsburgh, Pa., June 1st, 1915.

Sealed proposals will be received at this office until 1:30 o'clock P.M., Monday, July 12th, 1915, and will at that time be publicly opened by the County Commissioners, for the construction of a tunnel and the approaches thereto, known as "County Highway Tunnel No. 1," extending from the southerly side of East Carson Street near Third Street, Pittsburgh, in a southerly direction to a point on Warrington Avenue, near Boggs Avenue, Pittsburgh, Pa. The proposals submitted must be on the blank form of proposals which are bound with the contract, specifications and information for bidders, and must be addressed to the County Commissioners of Allegheny County, Pennsylvania, and deposited with the County Controller, marked "Proposal for County Highway Tunnel No. 1." Proposals must be accompanied by a certified check in the sum of One Hundred Fifty Thousand ($150,000.00) Dollars, made payable to the Commissioners of Allegheny County, to be returned to the unsuccessful bidders three days after the awarding of the contract. Within ten (10) days after receiving final notice of the awarding of the contract, the successful bidder will be required to execute the contract and furnish a proper surety bond, satisfactory to and to be approved by the County Commissioners, in the sum of Fifty (50%) per centum of the amount of the contract price, conditioned for the faithful performance of all the terms and provisions of the contract.

Copies of the form of proposal, contract and information for bidders and copies of the plans and specifications may be obtained at the office of A. D. Neeld, Consulting Engineer for the County of Allegheny, at No. 237 Fourth Avenue, Pittsburgh, and at the office of the County Commissioners, Court House, Pittsburgh, Pa., on and after June 7th, 1915. Those desiring to bid may have plans and specifications upon the deposit of Twenty-five ($25.00) Dollars, which will be refunded if said plans and specifications are returned in good condition within ten (10) days after the bids have been received and acted upon by the County Commissioners.

The County Commissioners reserve the right to reject any and all bids.

HYATT M. CRIBBS,
County Controller for the County of Allegheny.

⁂

Bids received until July 7, 1915.

Street Improvement

Cumberland, Md.

Sealed proposals addressed to the Mayor and City Council of Cumberland, Maryland, endorsed "Proposal for regrading, recurbing, repaving and otherwise improving Baltimore Street," will be received at the Office of the City Clerk, City Hall, on or before 9:30 A.M. Wednesday, July 7th, 1915.

Approximately about six (6) thousand square yards of Creosoted Wood Block pavement required.

Plans and Specifications can be procured at Office of City Engineer, for which a deposit of ten dollars will be required, which will be refunded on return of Plans in good order.

Each Bid must be accompanied with a Certified Check for One hundred dollars, payable to the order of the Mayor and City Council of Cumberland, Md.

JAMES P. GAFFNEY, City Engineer.

⁂

Bids received until June 29, 1915.

Sewer Construction

Columbus, Ohio.

Bids will be received by Geo. A. Borden, Director of Public Service, until 12 o'clock noon, Central Time, Tuesday, June 29, 1915, for construction of

South Side Storm Sewer

Sizes 123" to 12"; approximately 5 miles; about 400 feet in tunnel; average cuts from 7 to 17 feet; estimated cost $250,000.00.

Maryland Avenue Storm Sewer

Sizes 84" to 30"; approximately 1.6 miles, average cuts from 6 to 16 feet; estimated cost $100,000.

Plans and specifications from Henry Maetzel, Chief Engineer, City Hall; $5.00 deposit.

Bids received until July 13 and 15, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS.

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. on Tuesday, July 13th, 1915, for the improvement of highways in the following counties and also for the following repair contracts:

Broome (approx. 3.15); Chenango (2 highways 7.78; 4.02); Jefferson (2 highways 2.86; 2.40); Lewis (3 highways 2.00; 8.82; 1.27); Montgomery (approx. length 7.10); St. Lawrence (approx. length 5.50); Schoharie (approx. length 4.79); Schuyler (two highways 6.03; 1.11); Steuben (3 highways 9.09, 3.42, 7.31); Sullivan (approx. length 0.72); Tompkins (approx. 3.04); Westchester (approx. length 4.32); Wyoming (2 highways 1.53; 6.99); Delaware, 1 contract (resurfacing); Ontario, 1 contract (resurfacing); Suffolk, 1 contract (resurfacing).

Sealed proposals will also be received by the undersigned at their office, No. 55 Lancaster Streeet, Albany, N. Y., at 1 o'clock p.m. on Thursday, July 15th, 1915, for the construction and repair of highways in the following counties:

Broome, 1 highway (approx. length 0.91); 1 contract (resurfacing); Cattaraugus (approx. length 0.93); Chautauqua, 4 highways (1.51; 0.77; 3.55; 0.93); Cortland (approx. length 0.23); Erie, 2 highways (0.34; 0.59); Fulton (approx. length 2.12); Monroe, 1 highway (approx. length 1.53); 3 contracts (resurfacing); Montgomery (approx. length 3.81); Nassau (approx, length 1.57); Onondaga (approx. length 0.27); Ontario (approx. length 1.38); Otsego, 2 highways (12.66; 2.52); Rockland (approx. length 2.95); Suffolk (approx. length 3.25); Ulster (approx. length 2.97); Warren (approx. length 5.13); Steuben County (1 highway, approx. length 1.72 miles).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the offices of the Division Engineers in whose divisions the roads are to be constructed or repaired. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Information for Bidders" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
IRVING J. MORRIS, Secretary.

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Bids received until July 14, 1915.

Bids on $65,000 Sewer Bonds

Imperial, Calif.

Notice is hereby given that sealed bids will be received by the undersigned at the City Hall, City of Imperial, County of Imperial, State of California, up to the hour of 8 o'clock P.M. of Wednesday, the 14th day of July, 1915, for the purchase of $65,000.00 issue of sewer bonds of the said City of Imperial, California. Bonds bear six per cent. interest, and will be issued to run not longer than 40 years, in denominations to suit purchaser, not less than $1600.00 of said bonds to be payable each year.

Bonds will be sold to the highest and best bidder and the Board reserves the right to reject any and all bids and to readvertise.

Bonds subject to approval of attorney for purchaser.

Dated, Imperial, Cal., June 11, 1915.

LELIA FOSTER, City Clerk, City of Imperial.

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Bids received until June 29, 1915.

Street Paving

Meriden, Conn.

Sealed Proposals addressed to The Board of Public Works of the City of Meriden and endorsed "Proposals for Street Paving" will be received by said Board until 8 o'clock P.M., Tuesday, June 29th, 1915, for constructing Wood Block, Vitrified Brick and Reinforced Concrete Pavements on East and West Main Streets in said City. Plans and Specifications may be obtained upon personal application at the City Engineer's Office, Town Hall Building, Meriden, Conn., where all wishing to bid must procure them.

The Board of Public Works expressly reserve the right to reject any or all bids as it deems best for the interests of the City of Meriden so to do.

Bids received until June 29, 1915.

Power House Improvements

Middletown, N. Y.

Sealed proposals for additions and alterations to Power House for Power House Equipment, construction, heating, plumbing and electric work at the Middletown State Homeopathic Hospital, Middletown, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 2:30 o'clock P.M. on Tuesday, June 29, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the following amounts: For construction work, $250.00; heating work, $4,500.00; plumbing work, $100.00; electric work, $175.00. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty (50%) per cent. of the amount of contract within thirty (30) days after official notice of award of contract, and in accordance with the terms of specifications Nos. 2275, 2261, 2262 and 2263. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Middletown State Homeopathic Hospital, Middletown, N. Y., at the New York office of the Department of Architecture, Room 1224 Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposals may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00, made payable to the State of New York for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher, Capitol, Albany, N. Y.

E. S. ELWOOD, Secy., State Hospital Commission.
Dated Albany, N. Y., June 7, 1915.

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Bids received until July 9, 1915.

Wood Block and Asphalt Paving

Chattanooga, Tenn.

Sealed proposals, directed to the undersigned, will be received at the office of the Commissioner, Department of Streets and Sewers, until 10 o'clock A.M., July 9, 1915, for repaving portions of Market and East Ninth Streets. Bids are invited for both Creosoted Wood Block and Sheet Asphalt paving. The extent of the repaving covers about 20,000 square yards. Blank forms for proposal and specifications will be furnished on application to the undersigned, the applicant enclosing with his application the sum of $5.00, which amount will be returned on the receipt of a bona fide bid from such applicant. A certified check for $1000.00, payable to J. M. Payne, City Treasurer, must accompany each bid. The successful bidder will be required to execute a Surety Company bond for one-third the estimated amount of the contract, conditioned on the faithful performance of the requirement of the contract and the payment for the labor and materials used therein. The right is reserved to reject any or all bids.

E. D. BASS, Commissioner,
Dept. Streets and Sewers.

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Bids received until July 6, 1915.

Notice to Bridge Contractors

Belvidere, N. J.

Sealed bids or proposals will be received by a committee of the Board of Chosen Freeholders of the County of Warren at the Court House in Belvidere, N. J., on Tuesday, July 6, 1915, for the construction of two I-Beam Bridges.

One is located one mile north of Columbia, N. J., and is known as Moore's Bridge. The other is located near Barber's Farm, 1½ miles from Johnsonsburg, N. J.

Bids on the Moore Bridge will be opened on the above date at 11:45 A.M., and on the other bridge at 2 P.M.

Plans and specifications are on file at the Columbia Hotel, Columbia, N. J.; at the Blairstown Hotel, Blairstown, N. J.; at the Johnsonsburg Hotel, Johnsonsburg, N. J.; and at the office of F. W. Salmon, County Engineer, Netcong, N. J.

Each bid must be accompanied by a certified check made payable to the Director of the Board of Chosen Freeholders in the sum of $300 to guarantee the proper execution of contract and bond by the successful bidder on demand.

The right is reserved to reject any or all bids.

J. R. THATCHER,
Director of Board of Chosen Freeholders.

Bids received until July 7, 1915.

Reservoir and Filtration Plant

Port Henry, New York.

Sealed proposals endorsed, "Proposals for Installing Reservoir and Filtration Plant," and addressed to the undersigned will be received at the office of the Village Clerk of Port Henry, New York, until 8:00 P.M., July 7th, 1915, at which time and place all bids received therefor will be publicly opened and read.

The work for which these proposals are invited is near the Corporate limits of the Village of Port Henry and consists in the Construction and complete Installation of a new 1,000,000 gallon Concrete Lined Storage Reservoir and a new 250,000 gallon covered Slow Sand Filter with Sand Washing Apparatus, and all Appurtenances and Connections, and is to be finished complete in every detail ready for operation and occupancy by the Village.

All proposals must be made upon the blank form of proposal supplied by the Village Clerk. A certified check in the sum of 5% of the amount bid must accompany the proposal as a guarantee that the bidder will enter contract if awarded, and furnish bond for faithful performance in the amount of 50% of contract price.

Plans and Specifications of the work may be seen at the Office of the Village Clerk and at the office of Mortimer Y. Ferris, Civil Engineer, Ticonderoga, N. Y., or may be obtained for the sum of $5.00 per set on application to Village Clerk.

Bids submitted shall be open for acceptance until August 6th, 1915. The Board reserves the right to reject any and all bids.

A. C. LINDIN, Village Clerk,
Port Henry, New York.

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Bids received until July 21, 1915.

Reinforced Concrete Buildings

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans at their office, Suite 200, New Orleans Court Building, until July 21, 1915, at 2 o'clock P.M., and then publicly opened, for the construction of reinforced-concrete buildings for the Cotton Warehouses and Terminal, including the two-story Wharf House, about 120 feet by 2000 feet, Warehouse "E" about 150 feet by 580 feet, with their attached runways and appurtenances, located on the Mississippi River near Valence Street, in New Orleans.

A deposit of $25,000 in cash or certified check is required with proposal. Bond of $300,000 required with contract.

Payments monthly to the extent of 90% of the Engineers' estimate of work accomplished, including allowance for a reasonable stock of material.

On and after June 10, 1915, plans and specifications will be on file at the office of Ford, Bacon & Davis, No. 921 Canal Street, New Orleans, La., by whom full sets will be furnished to prospective bidders, on deposit of $100, which will be refunded to depositors who submit proposals and return sets in good condition. To depositors who do not submit proposals $80.00 will be refunded on return of the set in good condition.

The right is reserved to reject any and all bids and to waive informalities.

(Signed) ERNEST M. LOEB, President.

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Bids received until July 7, 1915.

Pumps on Floats

Sealed Bids will be received by the Board of Water Supply, at its offices, twenty-second floor, Municipal Building, Park Row, Centre and Chambers Streets, New York City, until 11 A.M., on Wednesday, July 7, 1915, for Contract 140, for furnishing, delivering and erecting at Shafts 11 and 21 of the City tunnel of the Catskill aqueduct in the City of New York, drainage equipment for unwatering the tunnel and its shafts.

At the above place and time the bids will be publicly opened and read. Pamphlets containing information for bidders, and contract drawings can be obtained at the above address, at the office of the Secretary, by depositing the sum of ten dollars ($10) in cash or its equivalent for each pamphlet. For further particulars apply to the office of the Principal Assistant Engineer at the above address.

CHARLES STRAUSS, President,
CHARLES N. CHADWICK,
JOHN F. GALVIN,
Commissioners of the Board of Water Supply.
W. BRUCE COBB, Secretary.

Bids received until July 2, 1915.

Street Improvements

DEPARTMENT OF PUBLIC WORKS

Philadelphia, Pa.

Sealed proposals will be received until 12 o'clock noon on Friday, July 2nd, 1915, and opened at that time in Room 225, City Hall, for the improvement of the South Broad Street Plaza from Oregon Avenue to Bigler Street between Thirteenth Street and Fifteenth Street.

Estimated quantities of the principal items of work to be done are as follows:

Earth Grading	21,500	cu.yds.
Topsoil and Grass Seeding	14,500	sq.yds.
Reinforcing Rods	14,841	pounds
Concrete Footways	9,700	sq.yds.
Granite Balustrade		
Reinforced Concrete Basins	2	
Granite Curbing	3,670	lin.ft.
Vitrified Pipe Drains	2,733	lin.ft.
Water Pipe	1,560	lin.ft.
Drinking Fountains	2	
Trees	216	

Together with the necessary incidental work.

A charge of five (5) dollars will be made for each set of specifications and drawings, which will be refunded upon the return of the unused specifications and drawings in good condition, or upon the return of the drawings in case a bid is submitted.

Inquire at Room 232, City Hall, Philadelphia.

M. L. COOKE, Director.

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Bids received until July 8, 1915.

Bridge Construction

DEPARTMENT OF PUBLIC WORKS.

Philadelphia, Pa.

Sealed proposals will be received until 12 o'clock noon, on Thursday, July 8, 1915, and opened at that time in Room 225, City Hall:

Bridge on line of Fifth Street
Bridge on line of Third Street
Bridge on line of Fisher Avenue.

Inquire at Room 416, City Hall, Philadelphia.

M. L. COOKE, Director.

⁂

Contractors

BIDS OPENED JULY 9, 1915

Proposals wanted for track-laying on the New Utrecht Avenue Elevated Line in Brooklyn. Rails, ties, etc., to be furnished by the City of New York, the contractor to do the work of installing the tracks exclusive of electrical and signal apparatus.

This line runs from a connection with the Fourth Avenue subway at about 38th Streeet, through open cut to New Utrecht Avenue and as an elevated railroad over New Utrecht Avenue, Stillwell Avenue and 86th Street to Coney Island.

Write or call concerning contract, plans and specifications.

PUBLIC SERVICE COMMISSION FOR THE FIRST DISTRICT,
154 Nassau Street, New York City.

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Barge Canal Contract to Sub-Let

Mechanicville, N. Y.

Bid wanted on construction of approach wall to Lock No. 3, Mechanicville, New York, Barge Canal Contract No. 72A. Work will be let under subcontract. Full information given on request. JAMES STEWART & CO., INC., 30 Church St., New York, N. Y.

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PROPOSALS FOR RIPRAP STONE—U. S. Engineer Office, Philadelphia, Pa.—Sealed proposals will be received here until 12 noon, July 8, 1915, and then opened, for furnishing and placing riprap in Delaware River at Artificial Island. Further information on application.

SEALED PROPOSALS will be received at the Office of the Lighthouse Inspector, Tompkinsville, N. Y., until 2 o'clock p.m., July 9, 1915, and then opened, for furnishing labor and materials for erecting a reinforced-concrete carpenter shop at General Lighthouse Depot, Tompkinsville, N. Y. Blank proposals and particulars may be had by addressing the above office.

PROPOSALS FOR AIR-COMPRESSOR PLANT—U. S. Engineer Office, Pittsburgh, Pa.—Sealed proposals for furnishing and installing a water-power driven air-compressor plant, at Dam No. 10, Ohio River, will be received at this office until 12 M. (Eastern Standard Time), June 30, 1915, and then publicly opened. Information on application.

Bids received until July 2, 1915.

Proposals for State Road Work

Hartford, Conn.

Sealed Proposals will be received by the State Highway Commissioner, Room 27, Capitol, Hartford, Conn., until 2 P.M., Friday, July 2, 1915, for the following sections of state road work in accordance with plans and specifications on file in the office of the State Highway Commissioner and at the following places:

TOWN OF ASHFORD, about 14,960 linear feet of Gravel construction. Plans and specifications at Selectmen's office, Warrenville. TOWN OF BETHEL; about 6,315 linear feet of Gravel construction. Plans and specifications at the Town Clerk's Office, Bethel. TOWN OF CANTERBURY; about 5,100 linear feet of Native Stone Macadam construction, and about 1,995 feet of Native Stone Resurfacing. Plans and specifications at Town Clerk's Office, Canterbury. TOWN OF GLASTONBURY; about 6,500 linear feet of 2" Bituminous Macadam construction. Specifications at Town Clerk's Office, Glastonbury. TOWN OF KILLINGWORTH; about 7,150 linear feet of Graded construction. Plans and specifications at Town Clerk's Office, Killingworth. TOWN OF NEWTOWN; about 8,040 linear feet of Native Stone construction. Plans and specifications at Town Clerk's Office, Newtown. TOWN OF PLAINFIELD; about 6,875 linear feet of Gravel construction. Plans and specifications at Town Clerk's Office, Central Village. TOWN OF SPRAGUE; about 1,630 linear feet of Gravel construction. Plans and specifications at Post Office, Versailles. TOWN OF VERNON; about 2,675 linear feet of 6" Bituminous Macadam construction. Plans and specifications at Town Clerk's Office, Rockville. TOWN OF WOODSTOCK; construction of 25 ft. Span Reinforced Concrete "T" Beam Bridge over Mill Brook on the Putnam-Woodstock Road in the Village of South Woodstock. Plans and specifications at office of E. C. Welden, Div. Eng., Jordon Block, Willimantic. TOWN OF WATERFORD; construction of 10 ft. Reinforced Concrete Slab Culvert located on the New London-Lyme Turnpike over Jordon Brook, Waterford. Plans and specifications at office of C. A. Campbell, Div. Eng., No. 32 Church St., Norwich. All bids must be accompanied by a surety company bond or a certified check not less than one-third of the cost of the work. The State Highway Commissioner reserves the right to reject any and all bids.

C. J. BENNETT, State Highway Commissioner,
Room 27, Capitol, Hartford, Conn.

Dated at Hartford, Conn., June 22, 1915.

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Bids received until July 7, 1915.

Intercepting Sewer in Tunnel

Cleveland, Ohio.

Sealed proposals will be received at the office of the Commissioner of Purchases and Supplies, Room No. 511 City Hall, until 12 o'clock, July 7th, 1915, for constructing, under two contracts, in tunnel, approximately 7500 lineal feet of a 6-ft. circular brick sewer.

Copies of plans and specifications and blank proposals can be obtained at the office of the Commissioner of Engineering, Rooms No. 413 and 417 City Hall, after June 21st, 1915.

The proposal must contain the full name of the party or parties making the same and all persons interested therein and must be accompanied by a proposal bond signed by a surety company authorized to do business in the State of Ohio or by a certified check for Five Thousand ($5000.00) Dollars, payable to the City of Cleveland, on a solvent bank, as surety that if the bid be accepted a contract will be entered into and the performance of it properly secured.

No proposal will be entertained unless made on the blanks furnished by the Commissioner of Engineering and delivered at the office of the Commissioner of Purchases and Supplies, Room No. 511, City Hall, previous to 12 o'clock M., Eastern Time, on the day specified.

The City reserves the right to reject any or all bids.

A. R. CALLOW,
Commissioner of Purchases and Supplies.

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Steel Viaducts

The Siamese Royal Railway Department invites bids for three steel viaducts. Specifications and drawings may be obtained from the Siamese Legation, Gloucester, Mass., on payment of fee of four dollars per set.

PROPOSALS FOR COAL.—U. S. Engineer Office, Wilmington, N. C.—Sealed proposals will be received here until 12 M., June 28, 1915, and then opened for furnishing about 13,000 tons of bituminous coal. Further information on application.

U. S. ENGINEER OFFICE, Room 707, Army Building, 39 Whitehall St., New York, N. Y.—Sealed proposals will be received here until 12 M., June 28, 1915, and then opened, for dredging in Newtown Creek, N. Y. Further information on application.

U. S. ENGINEER OFFICE, Newport, R. I., May 29, 1915.—Sealed proposals for rebuilding basin walls and repairing breakwaters and harbor walls at harbor at Block Island, R. I., will be received here until 12 o'clock noon, June 29, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

PROPOSALS FOR LOCK GATES—U. S. Engineer Office, Wilmington, N. C.—Sealed proposals will be received here until 12 M., July 19, 1915, and then opened for furnishing steel lock gates. Further information on application.

PROPOSALS FOR REPAIRS, SOUTH DOCK, ETC.—Office Quartermaster, West Point, N. Y.—Sealed proposals will be received here until 12 M., June 30, 1915, and then opened, for reconstruction and repairs to South Dock and Ferry Slip. Further information application.

U. S. ENGINEER OFFICE, Room 802, Army Building, 39 Whitehall Street, New York City.—Sealed proposals for dredging in Hackensack River, N. J., and Channel north of Shooters Island, N. Y. and N. J., will be received here until 12 M., July 15, 1915, and then opened. Bids for one or both of these works will be considered. Information on application.

PROPOSALS FOR LEVEE WORK—Mississippi River Commission, 1st & 2d Districts, Room 20, Custom House, Memphis, Tenn., June 4, 1915.—Sealed proposals for constructing about 700,000 cubic yards of levee work in the Lower St. Francis Levee District will be received at this office until 11 a.m., June 26, 1915, and then publicly opened. Information upon application. E. M. MARKHAM, Maj., Engrs.

U. S. ENGINEER OFFICE, 305 Southern Building, Washington, D. C.—Sealed proposals for furnishing materials and erecting complete a brick storehouse in McMillan Park will be received here until 12 M., July 17, 1915, and then publicly opened. Information on application.

PROPOSALS FOR LEVEE WORK—Office of Third Mississippi River District, P. O. Box 404, Vicksburg, Miss.—Sealed proposals will be received here until 11 a.m., July 12, 1915, and then opened, for constructing about 1,415,000 cubic yards of levee work. Further information on application.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich.—Sealed proposals for furnishing and delivering at Sault Ste. Marie, Michigan, about 325 tons of steel, etc., for construction of Fourth Lock, will be received at this office until 12 noon, June 30, 1915, and then publicly opened. Information on application.

U. S. ENGINEER OFFICE, Jacksonville, Fla.—Sealed proposals will be received here until 12 noon, July 24, 1915, and then opened, for dredging and rock removal in St. Johns River, Fla. Further information on application.

U. S. ENGINEER OFFICE, Room 305 Southern Building, Washington, D. C., May 27, 1915.—Sealed proposals for furnishing and delivering 300 tons, 25% more or less, Sulphate of Alumina will be received here until 12 M., June 26, 1915, and then publicly opened. Information on application.

U. S. ENGINEER OFFICE, 337 Federal Building, Detroit, Mich.—Sealed proposals for furnishing and delivering about 236,000 feet, B.M. of fir timber, will be received at this office until 12 M., July 31, 1915, and then publicly opened. Information on application.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., June 18, 1915.—Sealed proposals will be opened in this office at 3 p.m., July 30, 1915, for the construction complete (including mechanical equipment, interior lighting fixtures, and approaches) of the United States post office at Albion, Mich. Drawings and specifications may be obtained from the custodian of site at Albion, Mich., or at this office, in the discretion of the Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies (Labor Bureaus), Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; **five for Chicago.** Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 326, Eng. News.

MECHANICAL ENGINEER, 31, technical man with three years' shop training; six years' experience laying out manufacturing plants; specialist on production methods and labor-saving devices, arrangement of machine tools and manufacturing departments, savings in power, handling of material and increase of production; best of references from past employers and clients; can give part or whole time; New York or eastern Jersey preferred; good chance to get the man you need. P. W. 383, Eng. News.

Civil Engineers

WATER-SUPPLY, water power, dams, sewers; responsible charge, construction and design; present engagement soon terminates; age 34; Assoc. M. Am. Soc. C. E. P. W. 224, Eng. News.

CIVIL ENGINEER, technical graduate, Assoc. M. Am. Soc. C. E.; 15 years' experience hydraulic construction, municipal work, management and construction of water-works; business experience; $3600; now employed. P. W. 345, Eng. News.

CIVIL ENGINEER; 28, single, American, technical, railroad location, design and construction, hydro-electric, water works, subways, tunnels, reports and estimates; tropics and north, speak Spanish. P. W. 261, Eng. News.

CIVIL ENGINEER, graduate, Assoc. M. Am. Soc. C. E., 15 years' experience, responsible charge general construction, railroads and municipal improvements, surveys, expert computer, have instruments. P. W. 284, Eng. News.

CIVIL ENGINEER, Assoc. Mem. A. S. C. E., 18 years' experience, municipal roads, bridges, reinforced concrete. Complete outfit, both office and field. References. P. W. 329, Eng. News, Chicago.

CIVIL ENGINEER, technical graduate, desires position; 11 years' experience steam and electric railway maintenance and construction, reinforced-concrete bridge construction, large drainage canal work, difficult swamp drainage surveys; speaks and writes Spanish fluently; references; location immaterial. P. W. 360, Eng. News.

CIVIL ENGINEERING STUDENT; 20; technical, topographic and railroad drafting, computations; desires to permanently locate with engineer or firm; references, samples. P. W. 438, Eng. News.

CIVIL ENGINEER, college graduate; 15 years' general municipal consulting engineering experience; water works a specialty; design and construction, earth, masonry, concrete, steel; reports, appraisals; excellent references; minimum salary, $150. P. W. 369, Eng. News.

CIVIL ENGINEER, ex-army officer, just returned, study abroad hydrographic and topographic improvements, seeks opening. Accustomed to handle men. Vigorous and will go anywhere. P. W. 407, Eng. News.

GRADUATE CIVIL ENGINEER; 10 years' broad construction experience. Responsible charge design and construction; sewage, dams, hydraulics, reinforced concrete. Age 34, Assoc. M. Am. Soc. C. E. P. W. 410, Eng. News.

CIVIL ENGINEER, 11 years' varied experience, steam and electric railroad construction, location and valuation surveys; excellent highway experience; at present in charge of work. P. W. 411, Eng. News, Chicago.

CIVIL ENGINEER, 32, ten years' experience in U. S. and tropics. Topographic, hydrographic and construction surveys. Drafting, concrete inspection, pipe line, highway and R.R. location. P. W. 414, Eng. News.

CIVIL ENGINEER, technical graduate, five years' experience on railroad, bridge and building work, survey design and construction desires engagement. P. W. 419, Eng. News.

CIVIL ENGINEER, 17 years' experience, surveys and construction railways and hydraulic development; good draftsman; speak Spanish. P. W. 418, Eng. News.

GRADUATE CIVIL ENGINEER, 12 years' experience, 6 in general civil and 6 in frog and switch work desires permanent position. P. W. 417, Eng. News, Chicago.

CIVIL ENGINEER, graduate; six years' experience with engineers and contractors; railroads, sewers, power plants, subways; New York interview. P. W. 431, Eng. News.

GRADUATE CIVIL ENGINEER desires position; five years' experience, railway and municipal improvements. P. W. 425, Eng. News.

NO SALARY WANTED; will work for the experience acquired; civil engineer, Slav, 26; construction work, field or office. P. W. 421, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER having successfully filled positions as designer, draftsman in charge, and assistant engineer, open for engagement. Can handle correspondence, some experience selling, fair knowledge shop and erection costs. Age 34. Reference from present employer covering 12 years. Could invest small amount. P. W. 332, Eng. News.

STRUCTURAL ENGINEER, Experienced designer, good executive, accustomed to handling men desires position as engineer or in charge of work; excellent references from past and present employers. P. W. 316, Eng. News.

STRUCTURAL ENGINEER AND ESTIMATOR; 10 years' experience surveys, construction, detailing, estimating, designing; bridges and buildings; technical graduate. P. W. 429, Eng. News.

STRUCTURAL ENGINEER; graduate, ten years' experience checking ore bridges, coal tipples, industrial plants, office buildings, etc. P. W. 408, Eng. News, Chicago.

ENGINEER, structural, open for an engagement; 15 years' experience designing and estimating bridges, tall buildings, mill buildings, factories, etc., both in steel and reinforced concrete; three years assistant chief engineer for large construction company. P. W. 427, Eng. News.

STRUCTURAL ENGINEER, graduate, 10 years' experience, designing, detailing bridges, industrial plants, filtration, hydro-electric power. P. W. 409, Eng. News.

Surveyors

TRANSITMAN AND DRAFTSMAN, twelve years' experience, topographical, municipal, one year mechanical drafting. P. W. 393, Eng. News.

INSTRUMENTMAN; 10 years' experience (field and office) in general surveying, desires position. P. W. 428, Eng. News.

YOUNG MAN desires position as rodman or chainman; location immaterial; experienced. P. W. 426, Eng. News.

Draftsmen

ENGINEERING DRAFTSMAN desires position, three years' experience in subway and elevated construction. Expert track designer. P. W. 413, Eng. News.

YOUNG MAN, 28, single, technical graduate, wants position as draftsman, or in a surveying party, or at anything in engineering. Handle labor, speak Spanish, best reference and recommendation. Salary, locality immaterial. Object experience and advancement. P. W. 412, Eng. News.

STRUCTURAL DRAFTSMAN, technical graduate, age 41, married; thorough experience in checking, detailing and designing representative structures; 12 years with prominent consulting engineers; salary $150. P. W. 433, Eng. News.

DRAFTSMAN (Junior) mill building, designing, detailing, tracing, accurate. P. W. 403, Eng. News.

Superintendents, Etc.

SUPERINTENDENT OF STREET PAVING; ten years' experience in Eastern cities and familiar with city hall affairs. P. W. 379, Eng. News.

SALES ENGINEER, technical man, 30; six years with firm consulting engineers in New York City; large acquaintance among manufacturers, consulting and industrial engineers, and mill architects in East; hustler and a man who can produce results; would like to represent manufacturer in East; have made good and can give best of references from past employers; if you want a live representative write at once. P. W. 384, Eng. News.

ENGINEER, 15 years' experience machinery design and general engineering work; can readily adapt himself to new work and develop propositions from engineers' specifications; technical education . P. W. 430, Eng. News.

TECHNICAL GRADUATE, 25, wants position, estimator, assitant engineer or timekeeper; two years' experience. P. W. 432, Eng. News.

DESIGNER AND DETAILER of reinforced-concrete and heavy steel structures; also railroad alignment and field inspection; technical graduate; four years' experience. P. W. 437, Eng. News.

CONTRACTING ENGINEER, technical graduate; seven years' experience in estimating, designing and erecting of reinforced-concrete construction; also broad experience in soliciting new business; feel qualified to take complete charge of contracting office; extensive clientage; best of references. P. W. 434, Eng. News.

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ASSISTANT FOREMAN or timekeeper by congenial Italian young man. Read and talk Italian and English. P. W. 406, Eng. News, Chicago.

YOUNG MAN, college student, thorough knowledge of surveying, desires position. Own field and drafting instruments. Present location unsatisfactory. P. W. 420, Eng. News.

MAN wishes to connect with a responsible concern selling building materials; thoroughly acquainted with contractors and architects throughout the state. P. W. 436, Eng. News.

CORNELL GRADUATE, 14 years' experience engineering, maintenance, construction, purchasing and selling, desires position with manufacturing or engineering firm. P. W. 423, Eng. News.

TECHNICAL MAN, 24, seven years' power-plant experience wishes position as general assistant to consulting engineer. P. W. 424, Eng. News.

POSITIONS OPEN

ENGINEER experienced in designing and estimating all types of reinforced concrete construction, to take entire charge of engineering office. Must have had at least ten years practical experience original designing. Must be resourceful and able to redesign when necessary to effect economy. Have important position to right man. Salary $200 per month to start. Work near New York. When replying give full particulars of education and experience. Personal interview will be granted before examining references. All replies confidendential. P. 405, Eng. News.

DRAFTSMAN wanted with experience in conveying machinery and structural steel or concrete. P. 415, Eng. News.

MECHANICAL ENGINEER; for position as chief draftsman and estimator; must have experience in structural detailing and electric or steam hoists or similar work. Give full particulars as to education, experience, references and salary required. P. 404, Eng. News.

MECHANICAL ENGINEER for the middle west, college graduate with practical experience preferably in chemical plant. State age, experience, salary expected, etc. P. 416, Eng. News, Chicago.

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[36" Gauge]

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[24" Gauge]

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5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

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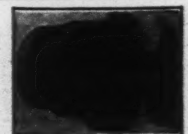

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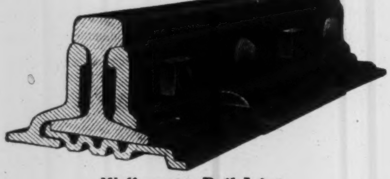

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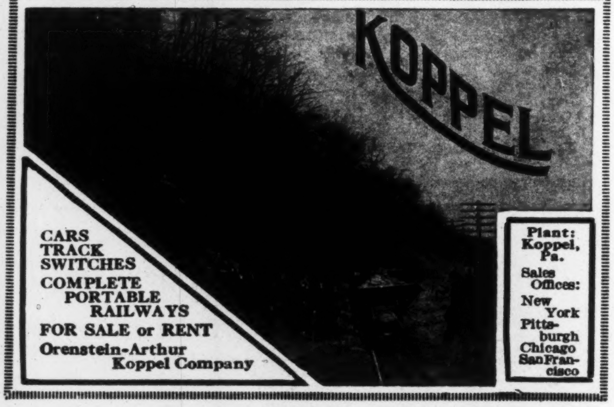

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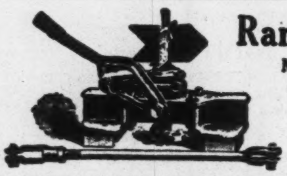

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Advertising Index, Last Page

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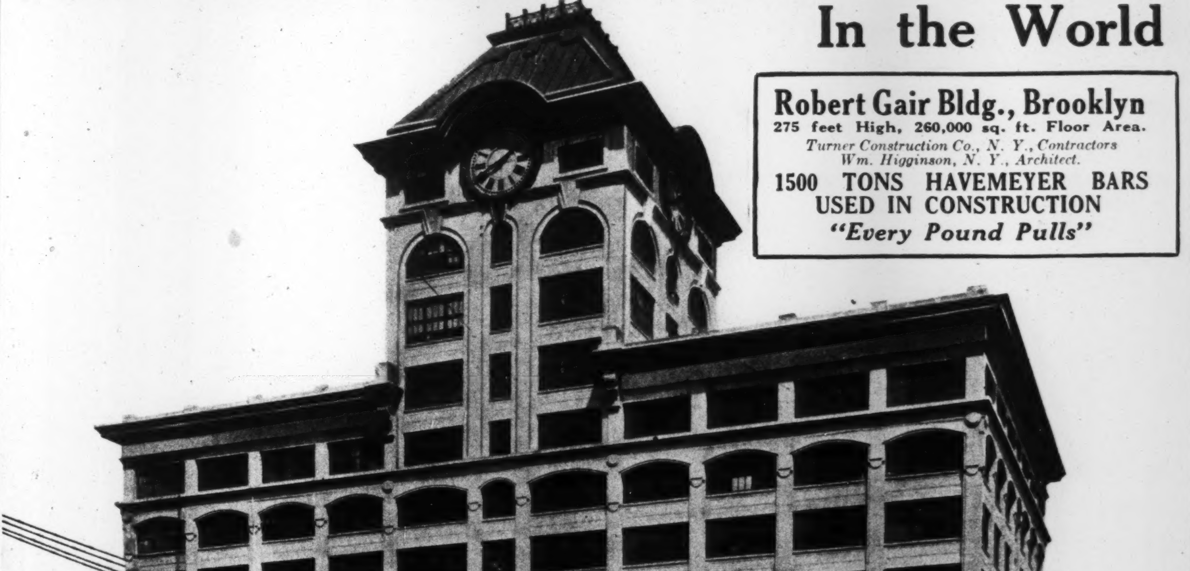

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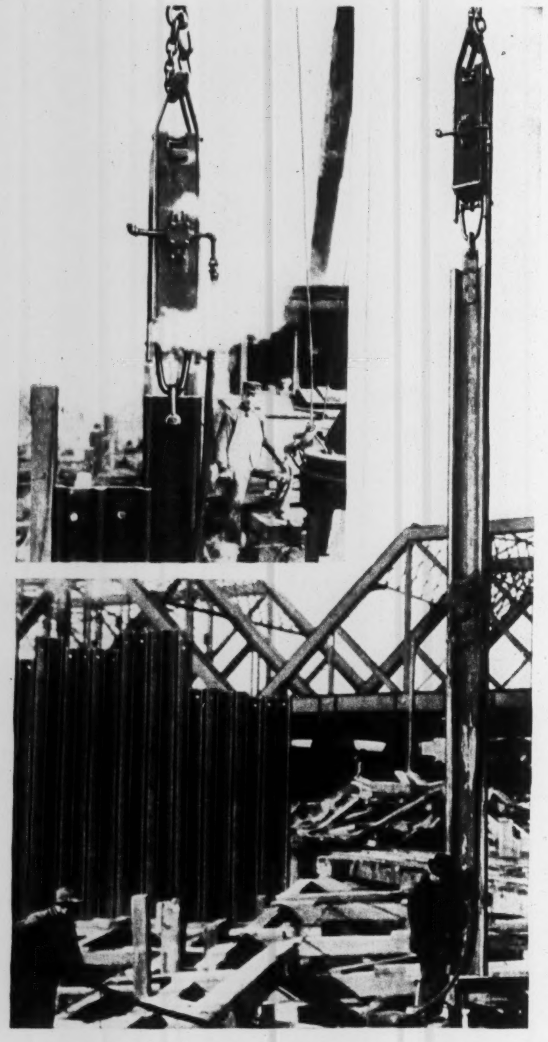
Contractors who figure upon reusing Lackawanna Steel Sheet Piling for a number of temporary installations before a final permanent installation or selling as scrap, can pull the driven piling sections by various practical methods.



A recent scheme for utilizing an inverted steam hammer for pulling is shown in the accompanying illustrations. This idea, used by N. R. Melvin, Supt., McMullen & Hoff, greatly reduced pulling costs on deep driven Lackawanna Sheet Piling in Lexington Avenue Subway work, New York City.

A steel strap about 4 in. wide was passed entirely around the hammer over the anvil blocks and fitted with a simple shackle at the upper end (lower end in pulling). The $3\frac{1}{2}$-in. space on each side of the strap was occupied by other straps to provide attachment to the derrick. In pulling, the inverted hammer took hold of the pile by means of a shackle and the derrick was then caused to pull upward. This pulled the center or shackle strap down upon the anvil block, and the hammer was started working. The larger picture shows how the shackle is attached to special plates which are bolted to the lower half of a spliced piling section, utilizing the splice plate holes for the bolts.

The hammer used, 11x11x56-inch McKiernan-Terry, weighs 1500 pounds, has 7-inch cylinder bore and stroke, and is fitted with a 200-pound ram. Its normal speed is 300 strokes per minute.

On this job piles penetrating 26 feet in clay, sand and gravel ("Ordinary hard pulling") were withdrawn in from 2 to 10 minutes each.

Other desirable pulling methods and devices are illustrated and described in our new reference book "Lackawanna Steel Sheet Piling," a copy of which will be sent on application to engineers who supervise piling work.

Data on many pulling jobs enables us to advise specifically under any given conditions and our steel sheet piling engineers are always ready to cooperate with present or prospective customers.

LACKAWANNA STEEL COMPANY

General Sales Office and Works: Lackawanna, N. Y.

NEW YORK	BUFFALO	CLEVELAND	CHICAGO	ST. LOUIS	SAN FRANCISCO
BOSTON	PHILADELPHIA	CINCINNATI	DETROIT	ATLANTA	

Licensees for the manufacture of Lackawanna Steel Sheet Piling:

For Great Britain and British Colonies in the Eastern Hemisphere, Cargo-Fleet-Iron Co., Ltd., Middlesborough, England. For France, Italy, Spain, French Colonies and Protectorates, Italian Colonies and Spanish Colonies in the Eastern Hemisphere: Cie Des Forges & Aciéries de la Marine et d'Homécourt, Paris, France. 202

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NUMBER OF COPIES PRINTED THIS ISSUE, 21,900

None sent free regularly, no returns from news companies, no back numbers.

"How I Have Been Benefited By the Advertising in Engineering News"

By E. E. THUM, *C. E.*

now connected with the University of Cincinnati; formerly Engineer, Anaconda Copper Mining Co.; Chief of Party, Tooeh Valley Ry.; Chief Engineer, North American Construction Co. and Engineer in Charge of Construction on various works etc.

Cincinnati, Ohio, May 26, 1915.

The Business Manager, Engineering News,
Hill Bldg., New York.

Dear Sir:

"How have I been benefited by the advertising in Engineering News?"

"How have I not been benefited" would be an easier question to answer. Ever since my freshman year in college I have used the advertising as I have used my education or the "News"—something of value to be absorbed now and stored away for some future demand. The Engineering News has been absolutely invaluable to me:—the text sandwiched in between the ads is like the theory within the practice.

My own enthusiasm based on actual use, and backed by the appeal of their advertising enabled me, early in my professional life, to convince the chief that the best transits (Berger) were none too good for us boys "out at the front."

When in charge of concrete work the ("Universal") advertising and the trade literature they called to my attention encouraged me to adopt the then unusual practice of continuing operations through the winter. This, together with some revisions in the wall designs I was able to make from a "hunch" I got from another ad (Blaw) enabled me to finish a big foundation job away ahead of schedule, and earned me the best promotion I ever got.

As superintendent of construction rebuilding a large manufacturing plant, I had to work under a Chief Engineer of the old school—"guy derrick" type. I wanted some (Bronwhoist) locomotive cranes, but was turned down. Finally I urged their necessity to the Superintendent. "What could you do with it?" he asked. "What can I do with it? It will excavate concrete; dismantle old plant; unload, sort and erect building, cranes and machinery." The management was finally convinced by their advertising showing the adaptability of their crane, and we got them. In six months we had to work nights to take care of odd jobs for the operating departments. The derricks and ball gang went to the scrap yards.

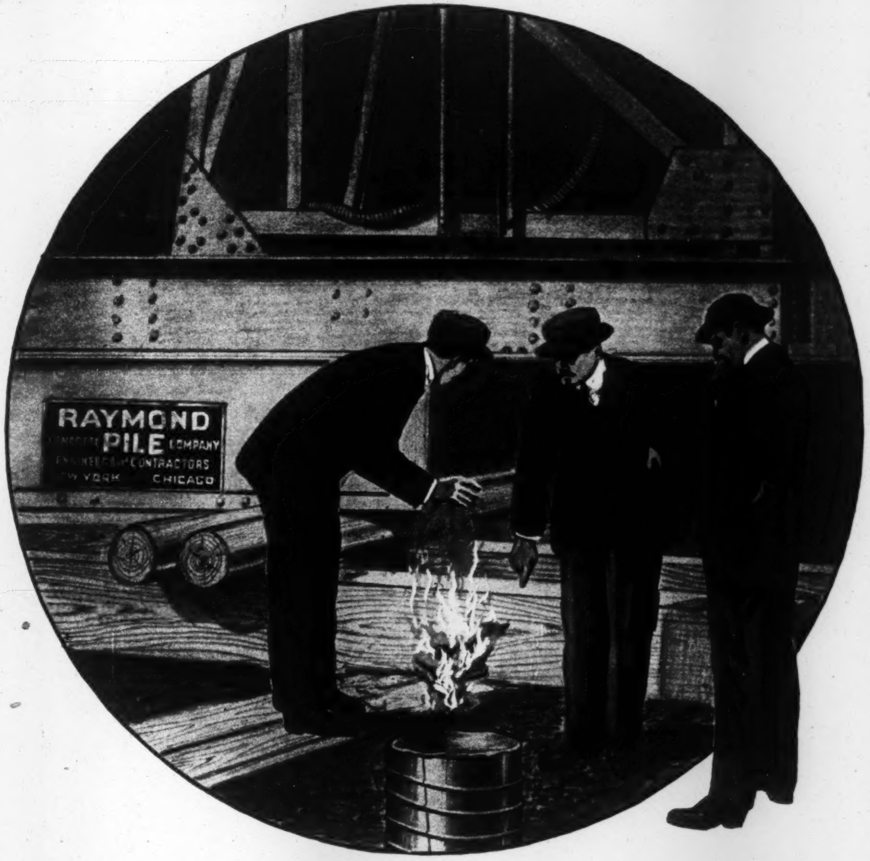
There are so many incidents constantly occurring that it is hard to choose among them. An advertisement ("Golden-Anderson") of altitude valves showed me how to design a beautifully simple pipe layout and control for our fire and sprinkler system tanks.

We tested several types of patent roofings in service—one (Johns-Manville Asbestos) stood our conditions best, as we suspected it would from their advertising matter.

In arguing with the manager about the advisability of standardizing concrete forms, the only text and illustrations I found at all convincing to him were those I clipped from the ads:— and so on indefinitely.

"How have I been benefited by the advertising in Engineering News?" Ask me rather, "How have I been benefited by my education?"—the first is a part of the second. Every day I am able to suggest materials and methods found by turning over the advertising and reading pages of the "Engineering News" each week, recognizing old friends and making new acquaintances.

Very sincerely,
E. E. Thum



Making Sure The Shell Is O.K.

Making Sure! That's it exactly. Not guessing, not trusting to luck, but making absolutely sure that the form in the ground is O.K.

With Raymond Made-In-Place Concrete Piles a steel core is driven to resistance, collapsed and withdrawn leaving a steel-lined hole in the ground.

To make sure that the enormous ground pressure is not squeezing the reinforced steel form, in the hole, out of shape, we light a piece of paper and drop it, blazing, to the bottom of the hole.

In this way we assure ourselves and everybody else on the job that each Raymond Shell is doing what we require of it—keeping back the ground pressure, excluding water and maintaining the hole to its predetermined shape.

With other methods of placing made-in-place concrete piles, no inspection, whatever, of the hole is possible.

On concrete piling problems take our advice and make sure.

A form for every pile—
A pile for every purpose.

Raymond Concrete Pile Co.

NEW YORK, 140 Cedar St. **CHICAGO, 111 W. Monroe St.**
Branch Offices in Principal Cities
Raymond Concrete Pile Company of Canada, Ltd., Montreal, Canada

Three Distinct Functions of

The CEMENT - GUN

Sandblasting **Guniting** **Grouting**

To permanently repair a piece of defective concrete or rubble masonry.

First:

Use the Cement-Gun as a sand blast for removing all foreign substances and to insure a clean surface for bonding purposes. Simply a change of nozzle will convert the Cement-Gun into a sand blast.

Second:

Drive a few grouting pipes into the cracks at convenient intervals, sealing around them with Gunite, thus affording the means of reaching the interior fissures and filling the exterior cracks.

Third:

After Gunite has set, remove nozzle, fill Cement-Gun with neat cement grout, connect delivery hose to grouting pipes and force grout into interior crevices until they have been completely filled up.

No matter how hopelessly the work may be damaged the Cement-Gun may save your structure.

Send us particulars and let us submit information as to how our method may be applied to your problem.

The Cement Gun

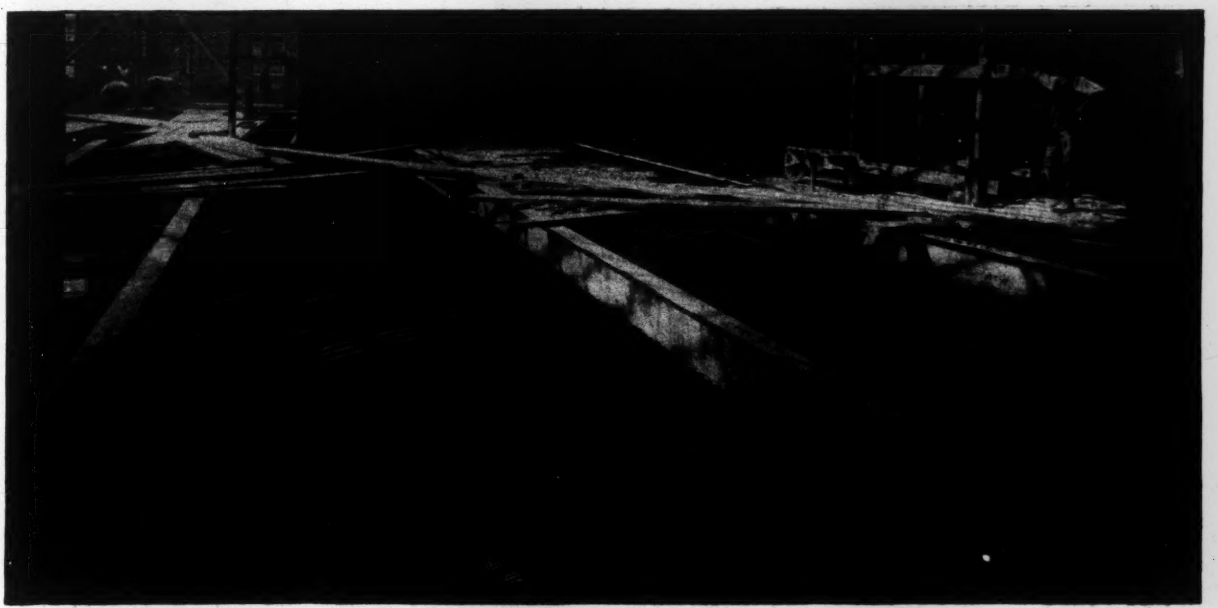
Cement - Gun Company

Incorporated

30 Church Street **New York, N. Y.**

Chicago Pittsburgh San Francisco

Applying Gunite



Arched Hy-Rib Roofs, Westgate Common Mills, London, England

Greatest Economy in Concrete Floors, Roofs, Sidings, Partitions, Ceilings, Furring, Etc., by Use of HY-RIB AND RIB LATH

You eliminate forms, save studs and channels, cut down labor cost, reduce dead weight, increase floor space and speed up construction by using **Hy-Rib** and **Rib Lath;** besides you secure the most satisfactory, permanent, fireproof construction.

Hy-Rib and Rib Lath are made in all depths and weights to exactly meet all requirements. We also furnish all types and sizes of steel studs, channels, corner beads, base screeds, diamond lath, etc. Our one complete service takes care of all your needs in fireproofing, metal lath and reinforcement. You thus avoid the difficulties and delays which result from depending upon a variety of sources for your materials. **Write for our new Hy-Rib Hand Book, full of valuable information. Free to persons interested in building.**

1½" HY-RIB
15/16" HY-RIB
13/16" HY-RIB
3/8" HY-RIB
RIB LATH

It's the Strength of the Ribs that Counts.

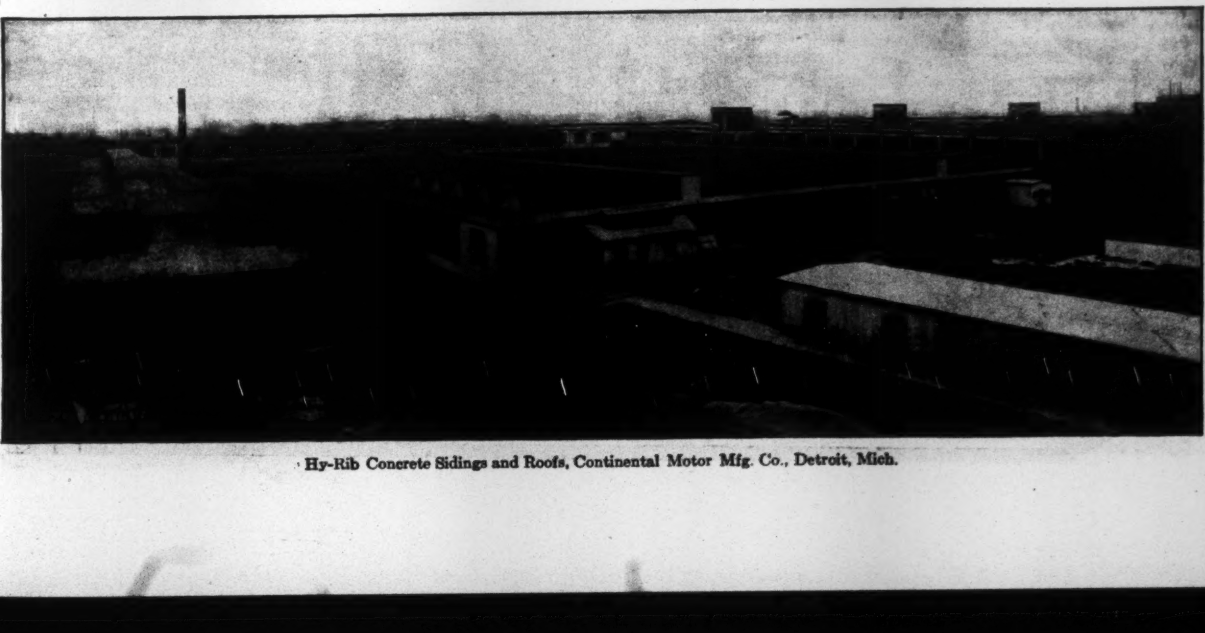
TRUSSED CONCRETE STEEL CO.

Dept. H.-12

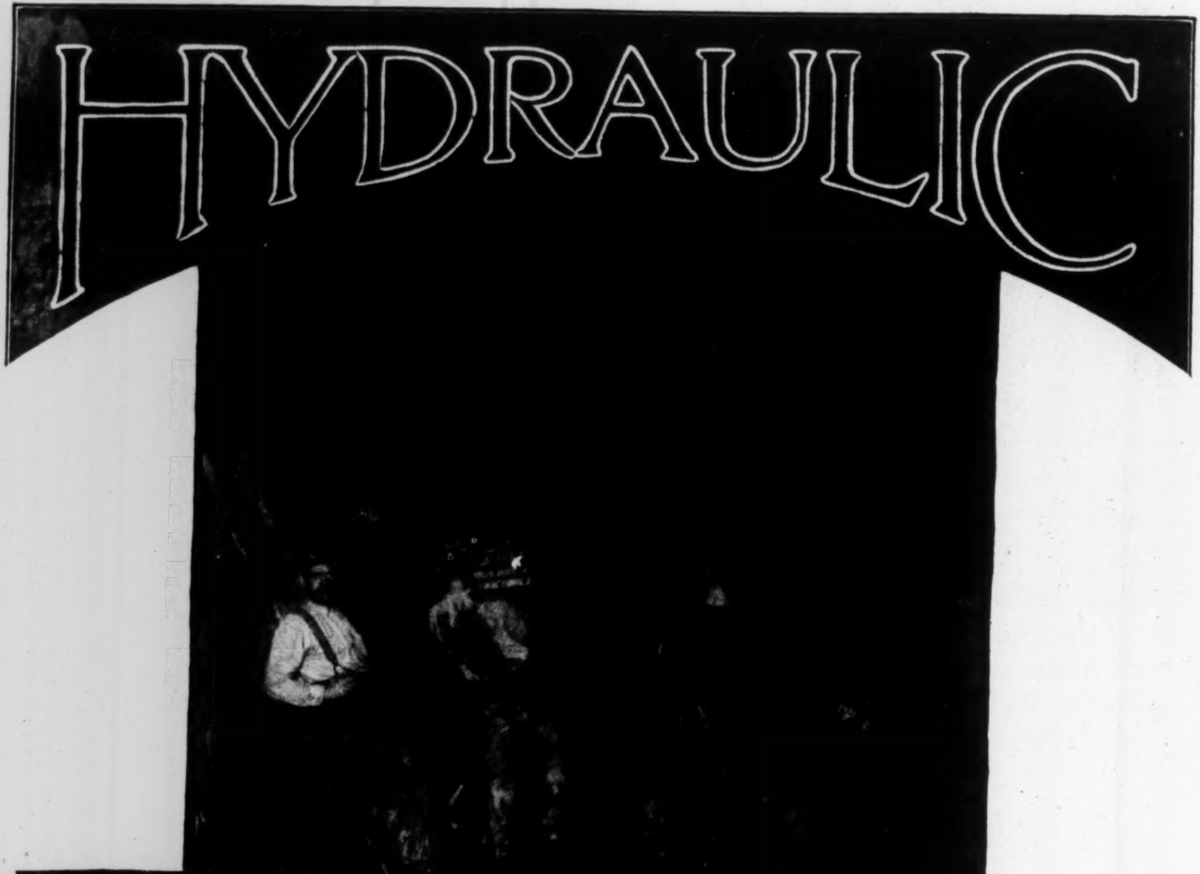
YOUNGSTOWN, OHIO

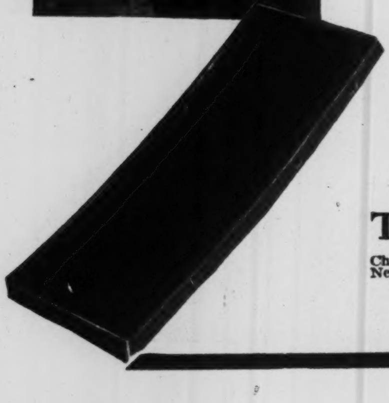
Atlanta, Ga.
Boston, Mass.
Buffalo, N. Y.
Chicago, Ill.
Cleveland, Ohio
Columbus, Ohio
Dallas, Texas
Denver, Colo.
Detroit, Mich.
El Paso, Texas
Indianapolis, Ind.
Kansas City, Mo.
Lancaster, Pa.
Los Angeles, Cal.
Milwaukee, Wis.
New York City, N.Y.
Norfolk, Va.
Philadelphia, Pa.
Pittsburgh, Pa.
Portland, Ore.
St. Louis, Mo.
St. Paul, Minn.
Salt Lake City, Utah
San Antonio, Texas
Seattle, Wash.
Spokane, Wash.
Syracuse, N. Y.
Washington, D. C.

KAHN Building Products



Hy-Rib Concrete Sidings and Roofs, Continental Motor Mfg. Co., Detroit, Mich.





Pressed Steel Plates for Tunnel Lining—

"Hydraulic" Pressed Steel Tunnel Liner Plates are much lighter than fabricated plate and angle liners, and they can be put into place with much less labor.

Stamped out by a steel die, they all come absolute duplicates and fit without warping, hammering or forcing into place.

Being light in weight, they reduce freight and haulage charges to a minimum.

The men carry them in stacks instead of one at a time.

Big money-savers for any contractor.

We are prepared to make all styles and sizes to suit all conditions, and shall be glad to have you send us your blueprints.

The Hydraulic Pressed Steel Co., 3152 E. 61st Street,
Cleveland, Ohio

Chicago, Ill., American Metal Form Co., 1205 Fisher Bldg. Philadelphia, Pa., Lee S. Harris, Drexel Bldg.
New York, N. Y., Brown & Sites Co., 30 Church St., Louisville, Ky., Roy C. Whayne Supply Co.

"Ten acres of pressed steel capacity."

On the Trail of a Good Truck

Three Years of Mountain Climbing Has No Effect on a White Truck

OVER the Orange Mountains a 3-ton **White Truck** daily hauls and delivers building material for the John O'Rourke Company of West Orange, N. J. It has been doing this for three years—doing it satisfactorily and economically.

"O'Rourke's Truck" is known as "a good mountain truck" for miles around the home town of Thomas A. Edison. Contractor Wiseman learned this while looking over the recently completed Edison plant. Wiseman expressed a desire to get on the trail of the truck.

"The O'Rourke Company's yard is at Park Avenue and Erie R. R. only a few blocks away. Why not see the truck at the yards?" suggested his informant.

Wiseman reached the yard in time to see it loading up with bags of cement. He asked at the office about the truck's record as a mountain climber.

"We use it on all kinds of grades in hauling to construction jobs over the Orange Mountains," said Edward C. Balch, Jr., Secretary and Treasurer of the O'Rourke Company. "For three years it has given us satisfactory service and today it seems as good as ever."

Wiseman asked if the truck consumed much fuel and Mr. Balch replied that it was extremely economical.

To convince the contractor that this was true he showed his records of fuel consumption. The average was 5¼ gallons daily. "The White Truck has lived up to expectations and if we were in the market for another truck we would buy another White Truck," said Mr. Balch.

"More convincing than anything else that White Trucks are good trucks is the fact that owners repeat when they go to market for another truck," commented contractor Wiseman.

Let the fact that your brother contractors buy another and another after purchasing their first White Truck convince you. If the truck didn't save them money would they "repeat?" Get on the trail of a good truck by writing now for our latest catalogs.

THE WHITE COMPANY

CLEVELAND

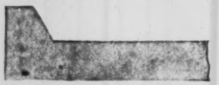
BOTH IN QUANTITY AND VALUE OF PRODUCTION THE LARGEST MANUFACTURERS OF COMMERCIAL MOTOR VEHICLES IN AMERICA

Concrete Pavement for Suburban Street

HIGHLAND PARK
IS ON THE MAP AGAIN

Highland Park, a wealthy suburb of Chicago, sought to replace its unsatisfactory macadam section of Sheridan Road—the interstate highway extending from Lincoln Park, Chicago, to Milwaukee, Wis.—with a suitable pavement that would be open to all kinds of traffic the year around. Concrete was chosen as the material which most nearly met all the requirements of permanence, moderate first cost, low maintenance charges, non-slipperiness, and varied traffic.

As shown in the accompanying diagram, the curb was built integral with the pavement. This economical method of curb construction lends itself readily to pavements built of concrete throughout.



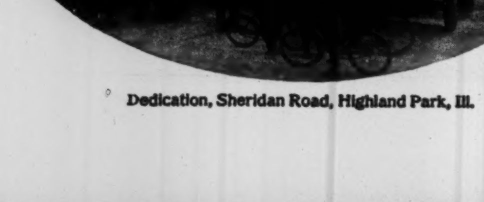
Curb Integral With Pavement

Highland Park officials and citizens were so well pleased with their new pavement that they celebrated its opening with appropriate dedicatory exercises. The sign stretched across the street reading "Highland Park is on the Map Again" is indicative of the importance the community attached to this piece of work.

Send for a copy of the proposed standard specifications of the American Concrete Institute entitled:

"Specifications for Concrete Roads, Streets and Alleys."

UNIVERSAL
Portland Cement Co.



Dedication, Sheridan Road, Highland Park, Ill.

OFFICES

208 South La Salle St. . Chicago
Frick Building . . . Pittsburgh
Security Bank Bldg. Minneapolis

Plants at Chicago and Pittsburgh

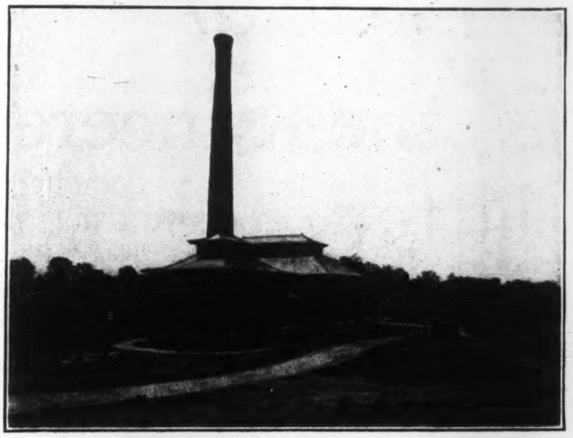
12,000,000 Barrels Annually

CONCRETE FOR PERMANENCE

Page 9—The Venturi Page

Series III.—Venturi Engineering News No. 3

The Economical Operation of Sewage Pumps guided by VENTURI METERS



Main Sewage Pumping Station, Columbus, O.

Venturi Meter Tube being installed in main sewage discharge line, Columbus, Ohio.

THE MODEL sewage disposal plant at Columbus, Ohio, lifts by motor driven centrifugal pumps between forty and fifty million gallons of sewage daily against a head of forty feet.

The 40″ x 20″ Venturi Meter Tube installed in the discharge main and connected with a Type M Indicator-Recorder mounted inside of the pumping station records all variations in the rate of pumpage and shows by the Indicator dial hand the instant that rate of pumpage falls below the normal, due to clogging of the pumps through accumulated debris. It also indicates when the pump catches its suction.

By observing the indicator dial the engineer is able to avoid needless power loss, for the dial shows when it is necessary to blow back the pumps and when they should be stopped for cleaning and inspection.

The fact that the Venturi Meter enables the operating force to maintain the sewage plant at its best efficiency was commented upon by a member of the Ohio State Board of Health who remarked that the Board advocates such a device in connection with every sewage plant as it helps to save lives as well as money.

Did you read the interesting descriptions of Venturi Meter Sewage Installations at Baltimore, Toronto, Salem, etc., included in our new Bulletin No. 142-N, containing 52 reprints of Venturi Engineering News? If not, send for your copy now.

Venturi Meter Type M Indicator-Recorder.

Venturi Meters are in successful operation in water works, sewage disposal plants, hydro-electric plants, irrigation developments, steam power and refrigerating plants, gas works and in practically every important industrial undertaking.

New Bulletin No. 84-N gives full description. May we mail you a copy?

"At the Panama-Pacific Exposition we invite you to see the Venturi Meter in operation at the Pelton Water Wheel Company's Exhibit, Palace of Machinery."

Builders Iron Foundry, Providence, R. I.

BRANCH OFFICES—30 Church St., New York City. Oliver Building, Pittsburgh, Penn. The Rookery, Chicago, Ill. N. B. Livermore & Co., Merchants National Bank Building, San Francisco, Calif. Northwestern Equipment Co., Railway Exchange, Portland, Ore. Northwestern Equipment Co., Alaska Building, Seattle, Wash.

The Worm That Turned *or*

Imitation is the Sincerest Flattery

CHAPTER ONE

The first experimental Pierce-Arrow motor truck was sent out for road tests in the spring of 1906. Four years of constant test and experiment convinced the Pierce-Arrow engineers that chain drive was unsuitable and inefficient for motor trucks. None of these experimental models, therefore, was ever offered for sale.

CHAPTER TWO

The Pierce-Arrow engineers then put a worm-gear truck in competition with their experimental chain-driven models. The result was so overwhelmingly in favor of the worm gear that this construction was adopted as standard for Pierce-Arrow motor trucks, and the experimental chain-driven models were scrapped.

CHAPTER THREE

The first Pierce-Arrow motor truck was sold in June, 1911, and this original introduction of the worm-gear drive in America made a sensation in the motor truck field. The construction was attacked on all sides by rival manufacturers and denounced as impracticable and inefficient.

CHAPTER FOUR

Pierce-Arrow worm-gear motor trucks soon began to make good in all kinds of service and under the most exacting conditions. The worm-gear drive was proved to be silent, efficient and economical. In 1912 rival manufacturers began to buy Pierce-Arrow trucks and study the worm-gear constructions.

CHAPTER FIVE

The first hastily constructed imitations of Pierce-Arrow worm-gear drive appeared on the market in 1913, and in 1914 a number of leading manufacturers adopted the worm gear for their entire line of trucks. Service records of Pierce-Arrow trucks had shown by this time that there was no perceptible wear in the worm gear after running over 100,000 miles. More and more repeat orders were received as a result of the favorable showing made by these pioneer worm-gear trucks.

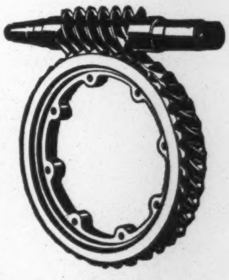
CHAPTER SIX

The trend now became increasingly strong toward worm-gear drive. A general review of the motor truck shows of 1915 indicated that out of 213 accredited makers of gasolene commercial vehicles 25% were already using worm gear while many more were preparing to adopt it next year. Nearly 2,000 Pierce-Arrow worm-gear trucks in successful operation throughout the country now bear witness to the correctness of Pierce-Arrow design and constructions.

(*To be continued in 1916*)

Pioneers in Worm-Gear Drive

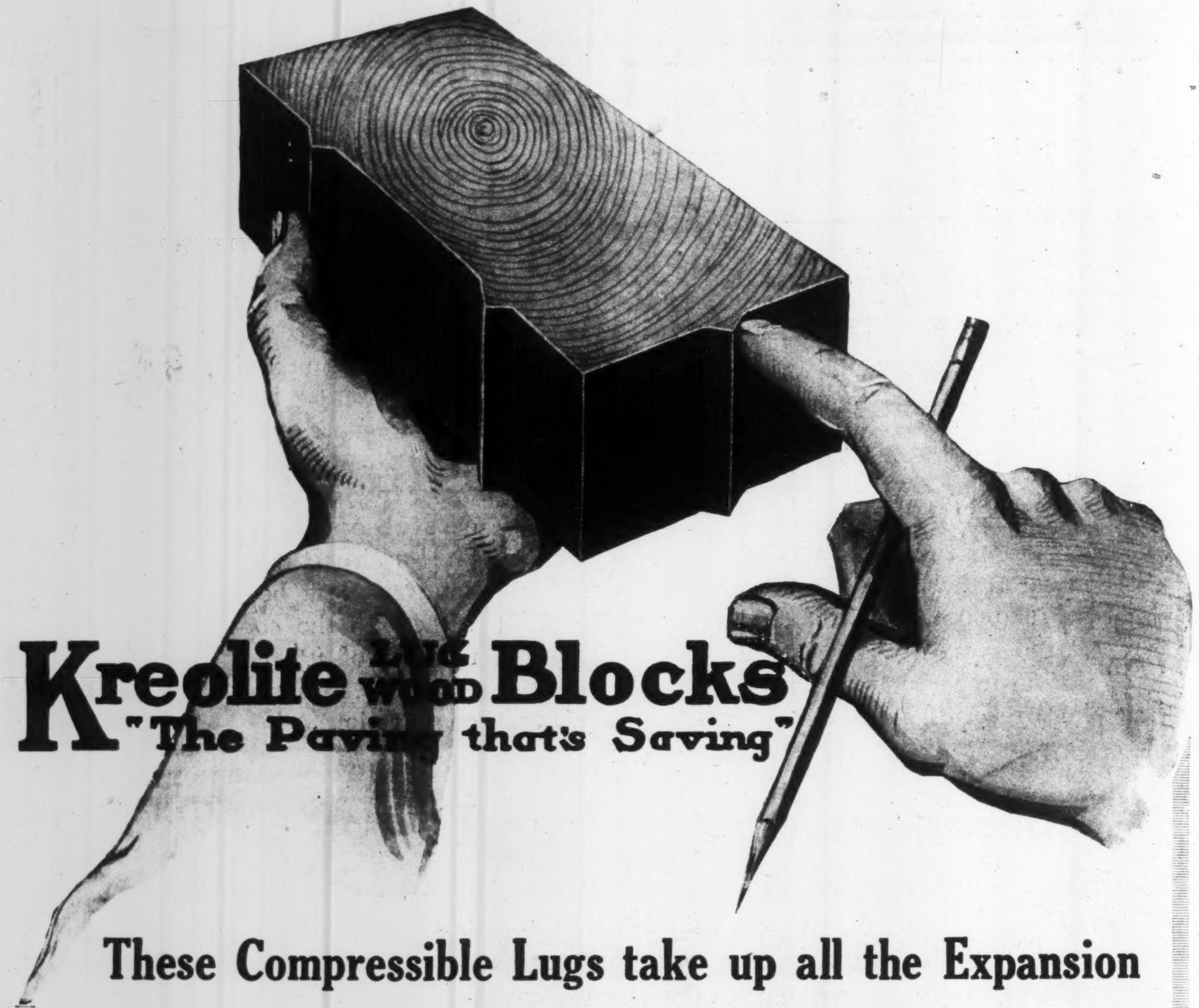
Prospective purchasers will find in this little sketch of recent motor truck history about as strong an argument as we can offer in favor of the Pierce-Arrow truck. If recent developments have convinced you that the worm gear is the most efficient and economical drive for motor trucks, it will surely be wise to purchase a truck which has long since passed the experimental stage and now embodies the results of four and one-half years actual working experience in many different kinds of service. Such a motor truck is the Pierce-Arrow—built by the pioneers in worm-gear drive in this country. We shall be glad to send to anyone interested a catalogue of Motor Trucks showing numerous body-types for 2-ton and 5-ton chassis.



The Worm-Gear

Pierce-Arrow Motor Car Co.

BUFFALO, N. Y.



Kreolite Lug Wood Blocks

"The Paving that's Saving"

These Compressible Lugs take up all the Expansion

The Lugs on Kreolite Lug Wood Blocks are the improvement that has eliminated the only objections that have ever been made against wood block pavements, namely, bulging and slipperiness.

When the blocks expand the Lugs compress, preventing any bulging of the pavement.

The space provided by the Lugs gives a good foothold for horses, absolutely preventing any slipperiness.

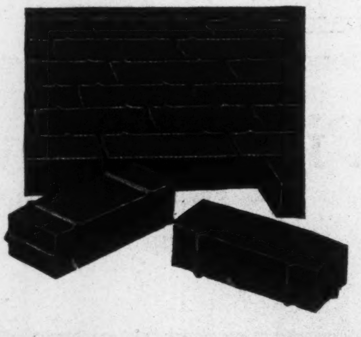
Kreolite Lug Wood Block Pavements are being laid on grades up to 6% by both private and public corporations, also by street railway companies for paving between the rails.

A Lug Wood Block Pavement presents a smooth, even surface and one that will remain so for years to come.

Interesting views and specifications on request.

The Jennison-Wright Company
320 Huron Street, Toledo, Ohio

Section of Kreolite Lug Wood Block Pavement—Filler not yet applied



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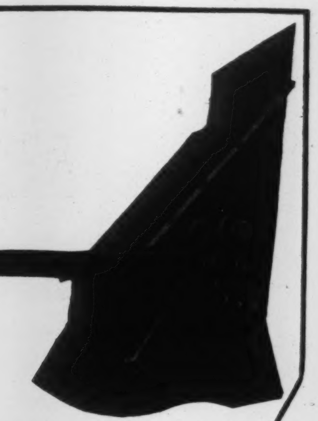
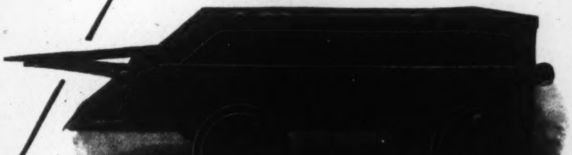
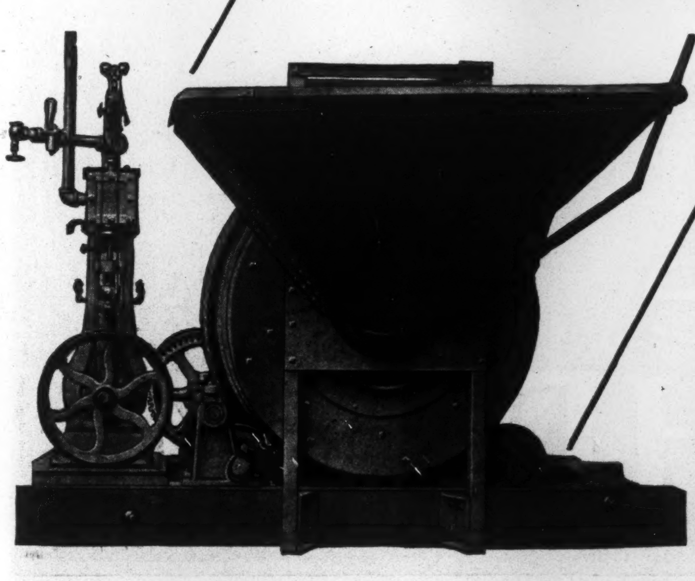
RANSOME

Stuff Stands the Gaff!



Every piece of equipment labelled "RANSOME" is the result of extensive experience and expert study of the conditions of concrete handling. Ransome Equipment reduces your first year's cost to a minimum—and your cost for year after year to a minimum too — because RANSOME stuff stands the gaff.





And don't forget! The Ransome line covers everything for the handling of concrete from sand-pile to forms—everything!

Write—tell us what sort of a job you are figuring on or getting ready to start, and we'll tell you about the equipment that'll cut your costs down low.

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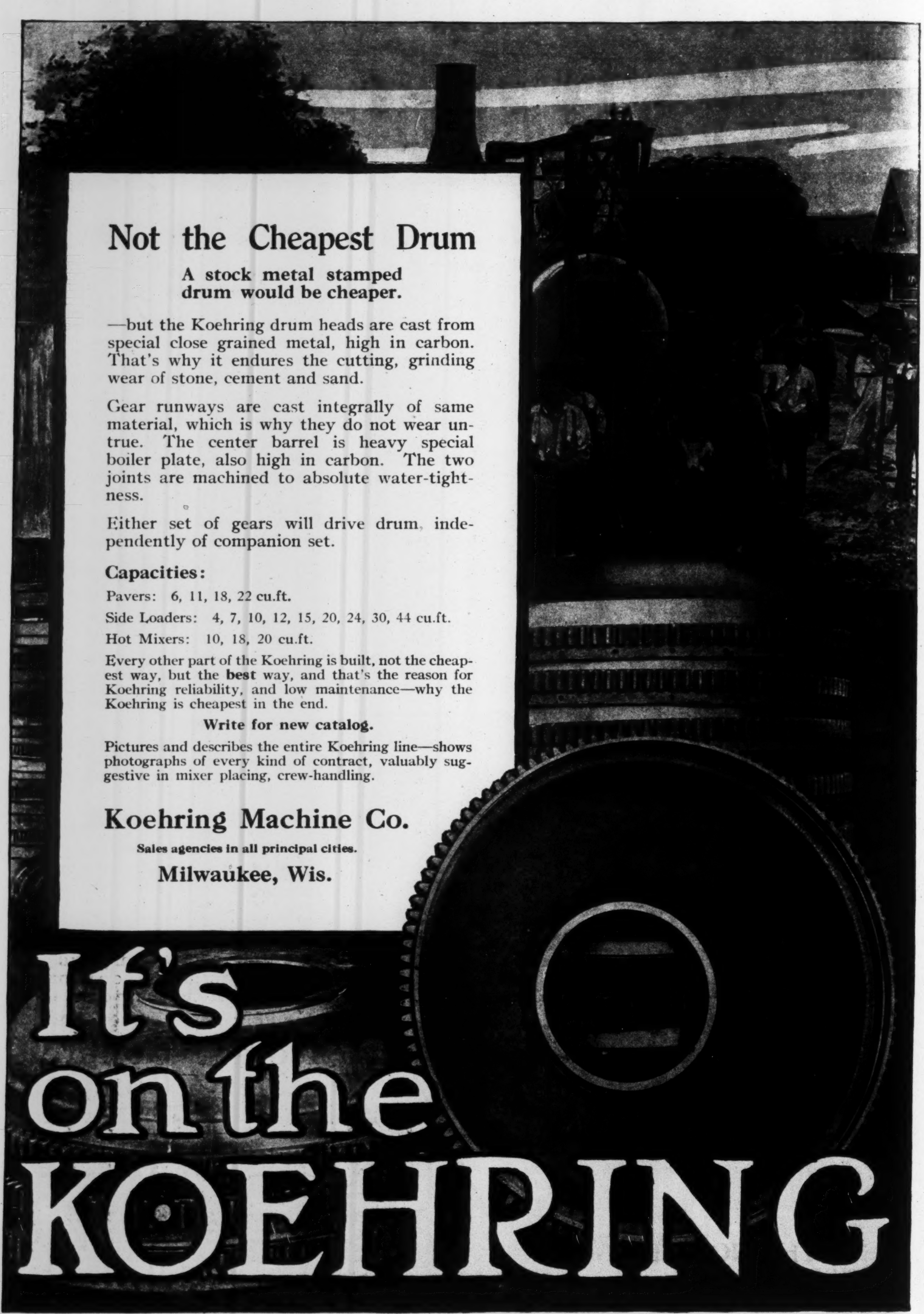

Not the Cheapest Drum

A stock metal stamped drum would be cheaper.

—but the Koehring drum heads are cast from special close grained metal, high in carbon. That's why it endures the cutting, grinding wear of stone, cement and sand.

Gear runways are cast integrally of same material, which is why they do not wear untrue. The center barrel is heavy special boiler plate, also high in carbon. The two joints are machined to absolute water-tightness.

Either set of gears will drive drum, independently of companion set.

Capacities:

Pavers: 6, 11, 18, 22 cu.ft.

Side Loaders: 4, 7, 10, 12, 15, 20, 24, 30, 44 cu.ft.

Hot Mixers: 10, 18, 20 cu.ft.

Every other part of the Koehring is built, not the cheapest way, but the **best** way, and that's the reason for Koehring reliability, and low maintenance—why the Koehring is cheapest in the end.

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Pictures and describes the entire Koehring line—shows photographs of every kind of contract, valuably suggestive in mixer placing, crew-handling.

Koehring Machine Co.

Sales agencies in all principal cities.

Milwaukee, Wis.

Two Dandy Profit Boosters

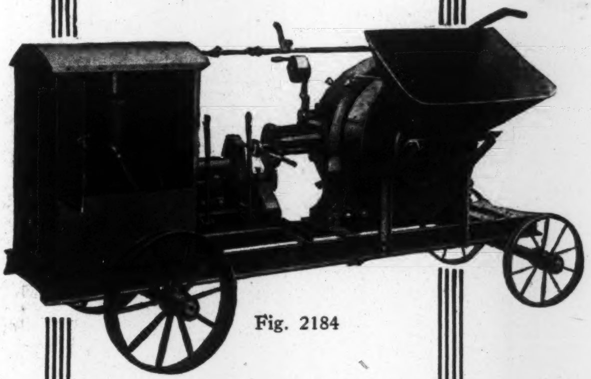

Fig. 2184

Three batches at once with the three-foot Smith Mixerette, hoist rig.

Bing! That bucket of concrete was sure travelling some—100 feet per minute. And it could have gone to the top of that 400 foot building just as well as to the 2nd floor.

Yes, sir, it certainly is a dandy little hoist. Listen now—a 300 lb. bucket of concrete, 400 feet into the air, at 100 feet per minute. And the best of it is that this hoist is mounted on your mixer truck **between the engine and drum** where the hoisting cable can't possibly rub or fray.

And while the hoist is handling one batch the drum is mixing another, for the engine is powerful enough to take care of both at once. Take a look into the drum. No, it won't splash. The deep, scoop-like blades keep the batch in the center where it is thoroughly mixed.

Now throw in that chute. Notice! It goes two-thirds of the way across the drum and its steep angle discharges the entire batch in 15 seconds.

Now for the third batch. You could shovel into that gated batch hopper **all day** and not get a kink in your back. Why the loading level is only 3 ft. 10¼ in. above the ground.

Right this minute, before you forget it, send for Mixerette Hoist Rig Booklet No. 147-G.

Or, if you don't need the hoist and simply want a real, first class three-foot mixer, send for Mixerette Booklet No. 110-G.

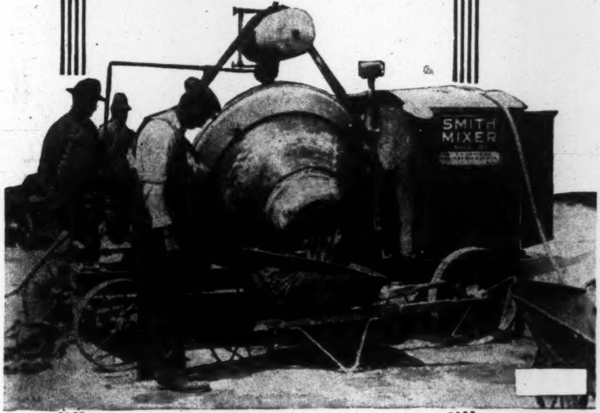

Fig. 3141

The four-foot Smith Mascot Mixer has a duo-cone drum and tilting discharge

The four-foot Smith Mascot is a sure profit booster. It retains the same double cone drum and tilting discharge that earned such a wonderful reputation for the Big Smith Mixer on hundreds of famous projects.

And for a finishing touch the Mascot embodies one of the greatest ideas of the past ten years of mixer development—a dust-proof casing encircling the drum and absolutely protecting the big gear ring and driving pinion.

The above features would in themselves be enough to make the Mascot a sure winner but there are more. To get all the **Big Ideas** that make up a Smith Mascot you want to send for the catalog. Among other things it will tell you all about the rapid-fire loader that gives you maximum capacity.

This gear-driven loader has no cables, sheaves or overhead frame—there is none of that twisting, jerking motion common to the pivot type loader. On the contrary the skip lifts easily and rapidly and with its steep angle empties the batch into the drum without any loss of time or spilling of materials.

You can always depend on the all-steel Smith Mascot. It is built for fast, continuous work. It will grind out concrete from morning to night, day after day, week after week. And after five seasons use you still have a splendid machine. A little overhauling will easily put it in shape for another seasons run and after that another With good care a Smith Mascot will pay for itself many times over.

Get the whole story by sending for Smith Mascot Folder No. 80-G.

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3102-G Hadley St., MILWAUKEE, WIS.
1447-G Old Colony Bldg., CHICAGO, ILL.

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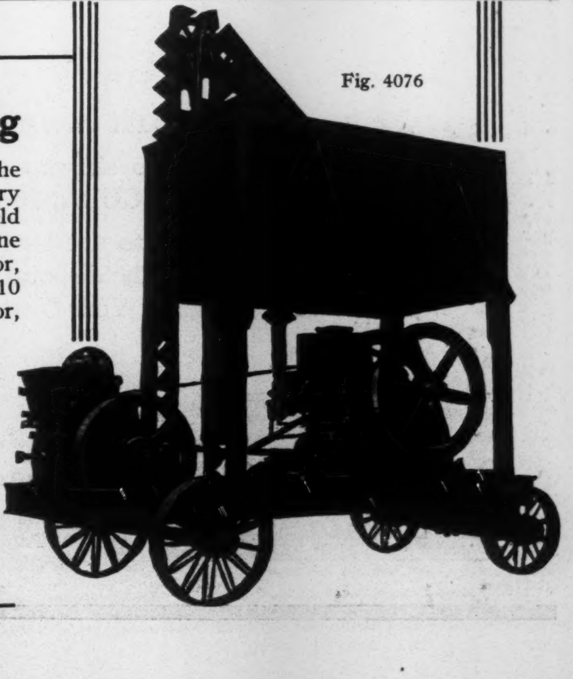
Fig. 4076



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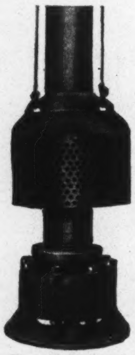

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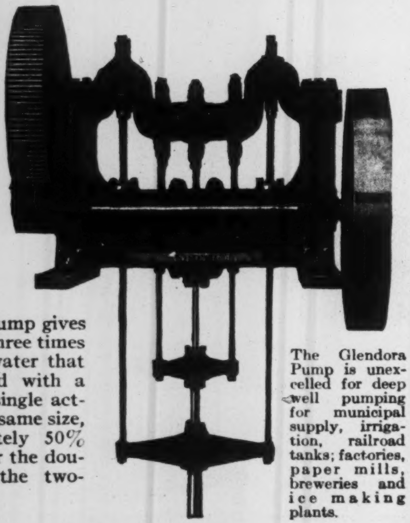
for Large Deep Wells



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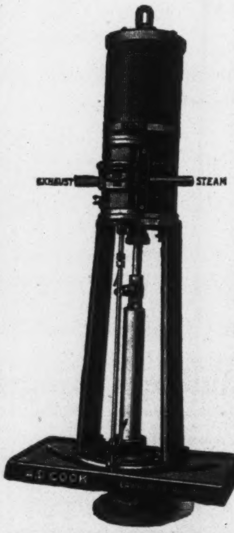

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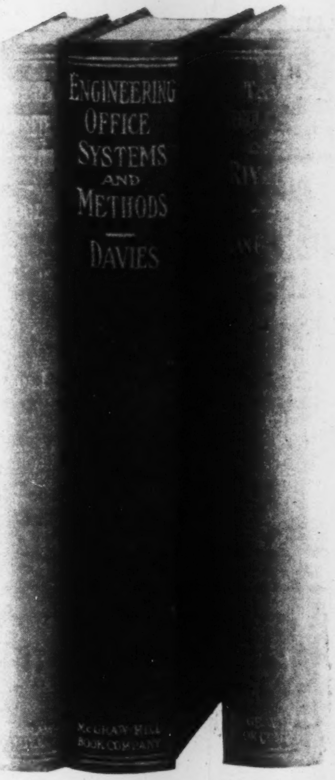

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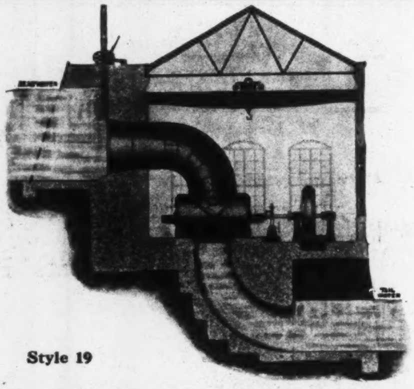
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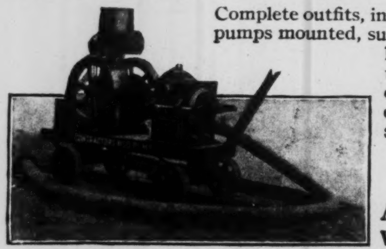

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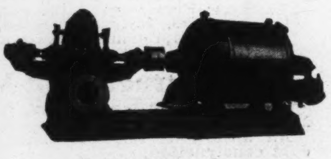
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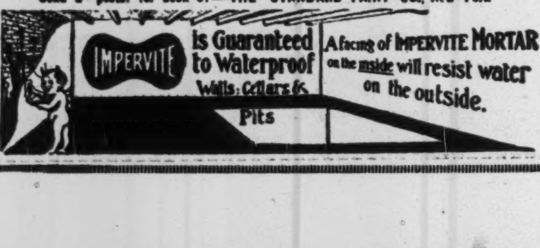
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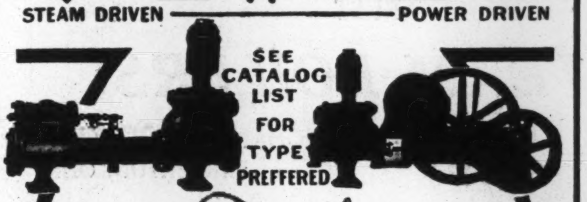

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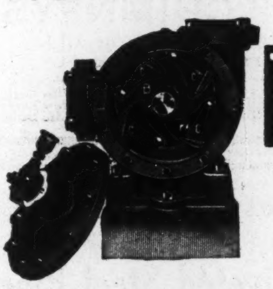

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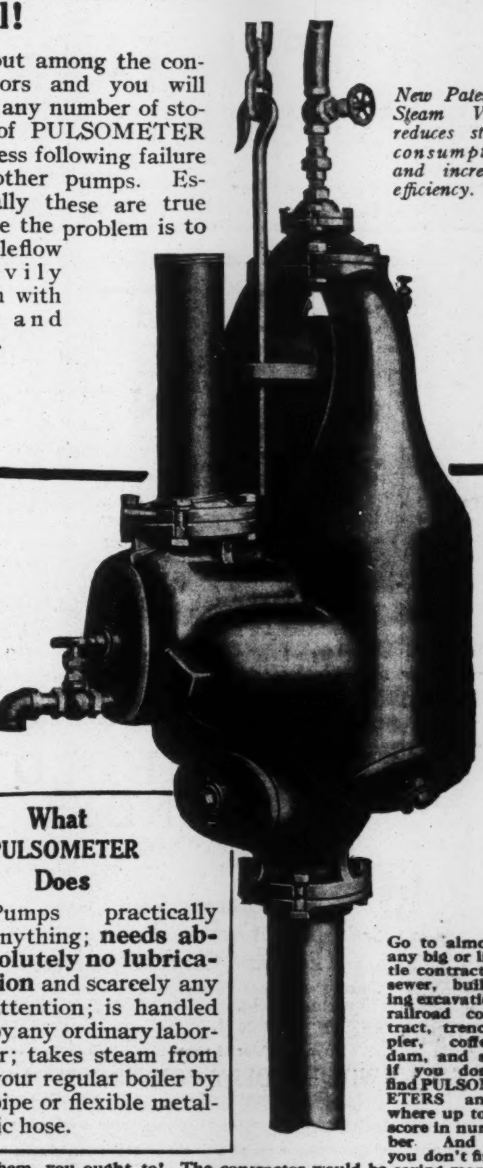

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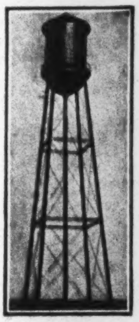

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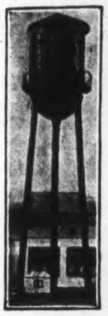

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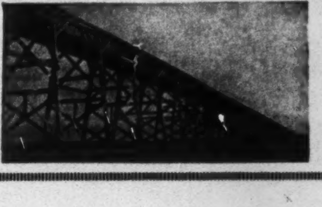

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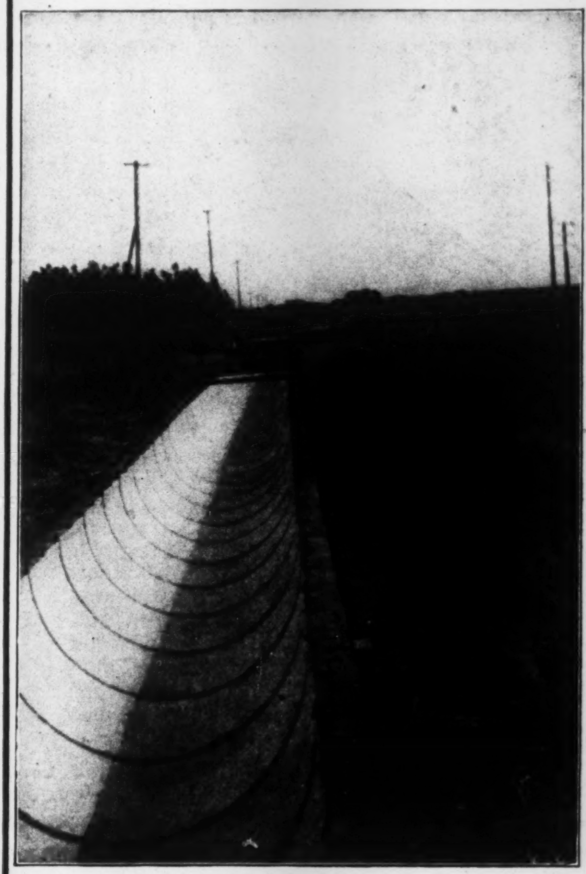

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In the smaller sizes they are omitted altogether, and in the larger they need not be more than one-half or two-thirds as numerous as in other types. It is not necessary for the rods to pass through the cross-bars. This saves considerable time in erecting, and enables the placing of the cross-bars after the flume is assembled.

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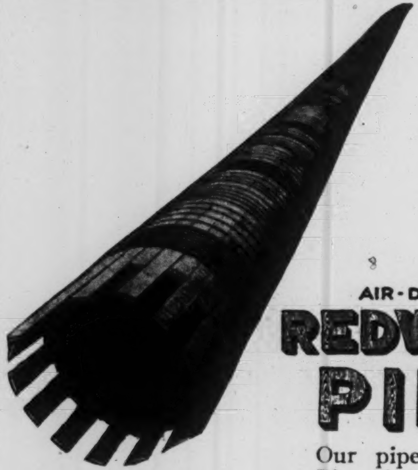

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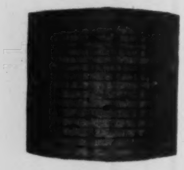

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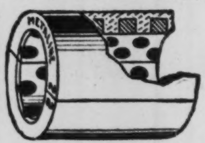

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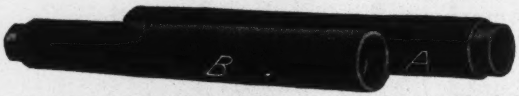

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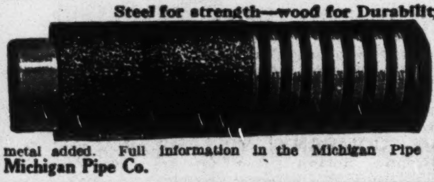

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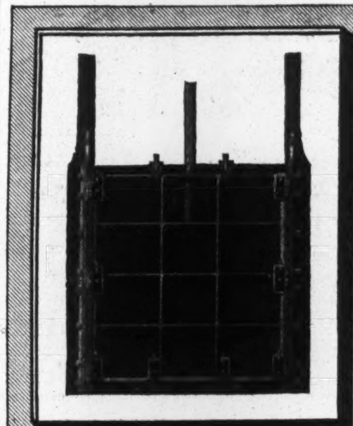

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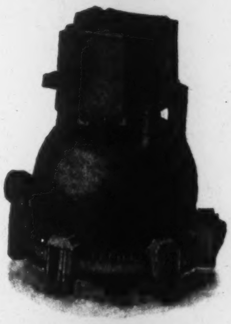

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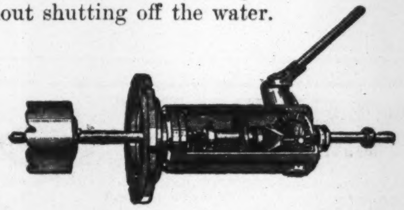

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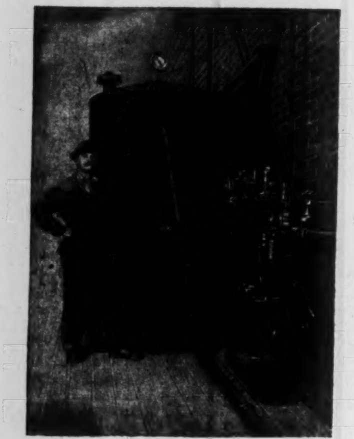
Simple Compressor
Strong Compressor



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PORTABLE COMPRESSORS IN CONSTRUCTION WORK

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Bulletin No. 3015 describes this type of Portable Compressor and many other types as well. Send for your copy. 84-C

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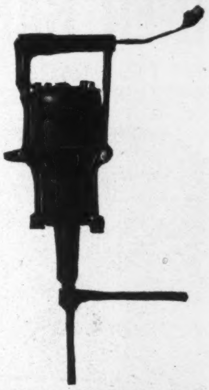

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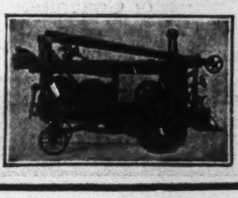

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WAINWRIGHT STEEL BOUND CONCRETE CURB

HAS A RECORD OF SIXTEEN YEARS' USE WITHOUT A FAILURE

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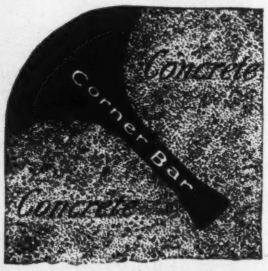
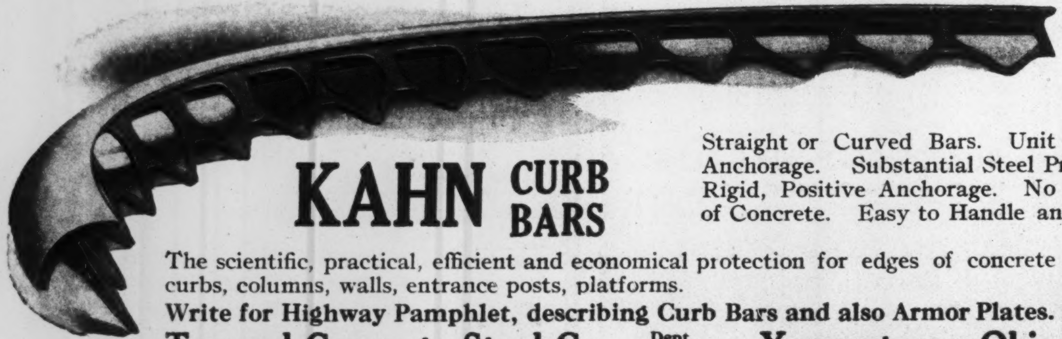
METAL PARTS FOR SALE **SEND FOR BOOKLET NO. 5**

STEEL PROTECTED CONCRETE CO., **REAL ESTATE TRUST BUILDING PHILADELPHIA, PA.**





KAHN CURB BARS

Straight or Curved Bars. Unit of Plate Anchorage. Substantial Steel Protection. Rigid, Positive Anchorage. No Splitting of Concrete. Easy to Handle and Install.

The scientific, practical, efficient and economical protection for edges of concrete curbs, columns, walls, entrance posts, platforms.

Write for Highway Pamphlet, describing Curb Bars and also Armor Plates.

Trussed Concrete Steel Co. Dept. C-12 **Youngstown, Ohio**

KAHN Building Products

ENGINEERS

In writing specifications for asphalt it is important to specify requirements that will insure high grade asphalt being used. The principal and most essential requirements are high ductility, low susceptibility to extremes of temperature, low volatilization loss, and that at least 99% of all the bitumen present shall be soluble in carbon-tetrachloride.

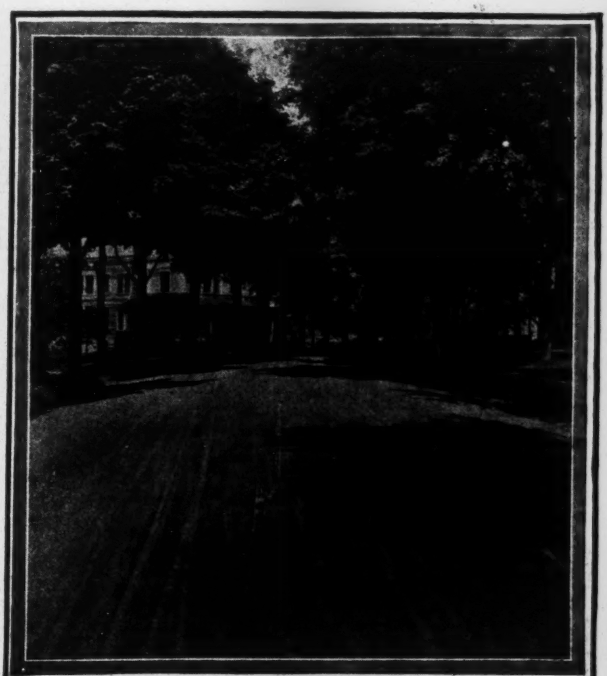
AZTEC ASPHALT

embodies all these requisite merits, moreover it is uniform—it has the advantage of being produced by men who have had a lifetime experience and study in the production of asphalt.

Aztec asphalt IS NOT one of the minor by-products of a large oil refinery. It is a straight natural asphalt refined from Mexican Maltha, and is not a blend of odds and ends of various light asphaltic oils and semi-asphaltic oils, the residue of the distillation of products from various oil fields. Our chief business is the production of asphalt. It is our aim to produce the best asphalt possible for all purposes and results speak for themselves.

Let us send you a model form of asphalt specifications for various types of asphalt pavement.

The United States Asphalt Refining Co.
The Interocean Oil Co.
90 West Street, New York
Chicago Philadelphia Baltimore Norfolk
Montreal



Prospect Street, South Orange, New Jersey, Standard Resurfacing Asphalt.

Is Your Macadam Road a Dust Bin?—Renovate It!

Have you a macadam road which motor traffic converts into a dust bin in dry weather?

There is a way to renovate that road—a way other country and rural districts are following—use our

STANDARD Resurfacing ASPHALT

and transform a disagreeable roadway into a serviceable one.

METHOD: The road should be swept clean, depression and ruts filled up, then Resurfacing Asphalt applied at the rate of one-half gallon per square yard. Then cover with sand or stone screenings and roll thoroughly.

Standard Resurfacing Asphalt, like all our other grades of binders and paving asphalts is refined directly from MEXICAN asphaltic petroleum, and does not contain any slippery lubricating element. It builds up on the top of the road metal a firm, resilient, dustless, durable "traffic mat."

Others are doing this and making good roads out of bad at small cost. Why shouldn't you? Write for fuller details.

Standard Oil Company
(New Jersey)
Newark Baltimore
Geo. W. Lamson, Agent, Railway Exchange, Chicago, Ill.
J. S. Helm, Agent, Healy Bldg., Atlanta, Ga.

American Machinist Says:

"The Psychological Effect of Good Light in the Shop is to Give a Feeling of Security and Cheerfulness."

Good Light Is Essential to a Good Product

Perfect Light is Provided by Lupton Products

Every Engineer Can Promote Production by Careful Provision for Maximum Daylighting and Natural Ventilation

THE LUPTON SERVICE DEPARTMENT can help you make **careful provision** because it has had years of experience in solving problems of daylighting and natural ventilation. It has investigated the needs of a wide range of industries. It is maintained for the exclusive purpose of assisting clients, prospective builders, architects, contractors and engineers with all problems pertaining to daylighting and natural ventilation. The same careful attention will be given to small buildings as to the large. Lupton Products have been designed to meet the varied requirements of industrial buildings. They include Lupton Steel Sash for side-walls; Pond Continuous Sash for Roof Lighting, Pond Truss, Foundry and Forge Shop Type, Pond Operating Device, Lupton Steel Partitions, and Tube Steel Doors, etc.

The latest Lupton Book contains the result of years of experience and describes our production promoting products. Want a copy? We must have your name and address to send it and the coupon is designed to save your time. Just fill it in and we will send the book.

David Lupton's Sons Co.,
Westmoreland and Tulip Sts., Philadelphia.

Gentlemen:
Please send me entirely free the New Lupton Book.

Name..............................

Address..............................

LUPTON Products in These Buildings

Victor Talking Machine Co., Camden, N. J., John Wanamaker, Philadelphia, Willys-Overland Company, Toledo, O. American Car and Foundry Co., Detroit, Mich., Bethlehem Steel Co., South Bethlehem, Pa., Oneida Community, Ltd., Oneida, N. Y., Packard Motor Car Company, Philadelphia, Pa., Detroit, Mich.

A large number of buildings daylighted and ventilated by Lupton Products are described and illustrated in the latest Lupton Book. Get your copy.

David Lupton's Sons Company

Tulip and Westmoreland Streets, Philadelphia, Pa.

Chicago — New York — Pittsburgh. A. B. Ormsby Co., Ltd., Canadian Manufacturers, 163 Queen St., Toronto, Canada.

INDUSTRIAL · LOCOMOTIVES

PITTSBURG LIMESTONE COMPANY
4

It is important to know what you get for your money when buying a locomotive.

The designing must be done with the utmost care to insure correct proportion and sufficient strength of every part. The right amount of the right material must be provided in the right place, and every part must fit every other locomotive of the same size and design to avoid days of idleness at critical times of the work.

Our locomotives for industrial service are designed and built for maximum work and long life.

SEE OUR EXHIBIT IN TRANSPORTATION PALACE, PANAMA-PACIFIC EXPOSITION, SAN FRANCISCO, CALIFORNIA.

AMERICAN LOCOMOTIVE COMPANY

30 CHURCH STREET, NEW YORK

McCormick Building, Chicago, Ill.,
A. Baldwin & Company, New Orleans, La.
Dominion Express Building, Montreal, Canada.
N. B. Livermore & Company, Los Angeles and San Francisco, California.
Northwestern Equipment Company, Seattle, Wash., and Portland, Ore.

PORTER

LIGHT LOCOMOTIVES

You cannot find their equal for strength, power, quality, weight and durability. They are a good investment, guaranteed in every particular and made in every variety of size and design, for any gauge of track.

Go over the question of Locomotives with us. Write for prices. Porter Locomotives are distinctive in quality and efficiency.

H. K. PORTER CO., 531 Wood Street, Pittsburgh, Pa.
NEW YORK OFFICES—Hudson Terminal Bldg.

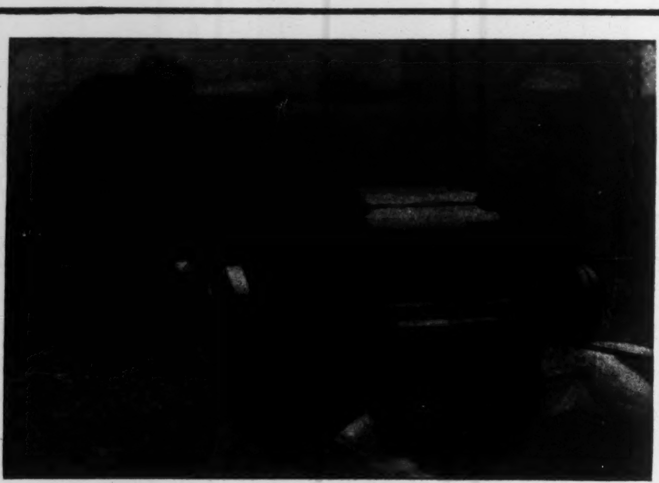
PLYMOUTH Gasoline Locomotives

In operating **Plymouth Gasoline Locomotives** you provide fuel only as long as the engine is in action. No boilers to be bothered with, no waiting for steam, no fear of chemically-unfit water.

Plymouth Gasoline Locomotives are always ready when called upon. They will reduce your haulage cost per ton mile.

Get the facts. Do not delay. Send NOW for Catalog.

The J. D. Fate Company
Plymouth, Ohio, U. S. A.



You Can Crush to Suit Your Trade
with a
JEFFREY TYPE A STONE PULVERIZER

The Fine product of this machine is ideally suited for **ROAD TOP DRESSING or FILLER.** It satisfies the Road Inspector's Demands and insures a constant supply of Screenings at less cost than you can buy them.

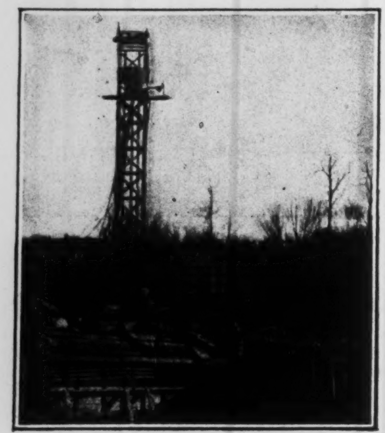
It gives excellent service in the making of **Stone for Concrete.**
From the Fines and Dust are being made **Roofing, Fluxing and Finishing Stone—Agricultural Fertilizer**—that means Increased Crops and Profits.

Every Road Contractor should have a copy of Bulletin No. 142-23 telling all about this machine. Request it—NOW.

JEFFREY MFG. CO., 923 North Fourth St., Columbus, Ohio
New York Boston Philadelphia Charlestown, W. Va. Birmingham Chicago Denver Montreal

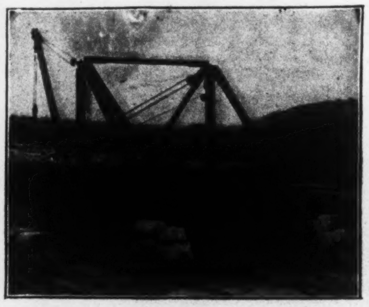
6-24-15.

INSLEY METHOD
Concrete Distribution



The efficiency of the Insley Plant throughout represents years of specialized development.

INSLEY MFG. COMPANY
Engineers and Manufacturers
INDIANAPOLIS, INDIANA



Flory Hoists do the work on the traveling derricks at Kensico Dam.

Contractors
Flory Efficient Hoists

Each of these eight travelers are equipped with

2—75 H. P. two-speed "patented" Derrick hoists—

2—11 H. P. Boom swingers, all Electrically operated.

S. Flory Mfg. Co.
Bangor, Pa.

Schaefer Direct-Connected Mixers

mean longer life and fewer repairs—faster work and larger profits. Every machine built as a unit—engine especially designed to fit the mixer it is to drive and direct connected to the drum requiring only one chain with a self-adjusting friction clutch.

Built in 5, 8, 11, 12, 15, 22, 30, and 40 cu. ft. capacities, with both steam and gasoline power.

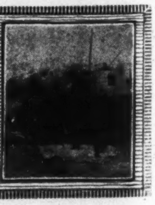
Schaefer Mfg. Co., 50 Pearl Street, Berlin, Wis.

THEW SHOVELS

are economical in almost any class of excavating. The Thew handles either a 6-inch or a 40-foot cut economically and will handle anything from sand to blasted rock.

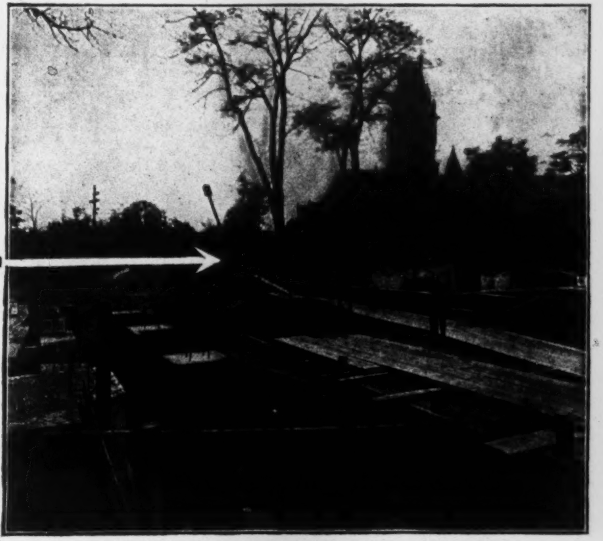
1200 Thews are in operation today. Write for Catalog "I" and List of Thew Owners.

THE THEW AUTOMATIC SHOVEL CO. LORAIN, OHIO



What is Your Concrete Costing You?

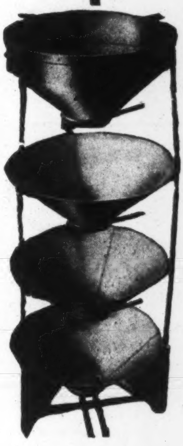
It Costs 2 cents Per Yard to Operate an Automatic Concrete Mixer



Germania Museum.—Harvard University, Cambridge, Mass.

Architects, Warren & Smith. Contractors, W. A. & H. A. Root Co.
One-bag mixer hung from grade. Concrete was handled by barrows wheeled to forms.

and Requires No Power



Automatic Concrete Mixer

100 cu.yds. a day from a ¼ yard mixer.

1000 cu.yds. a day from a 1 yard mixer.

Millions of yards mixed and Millions of dollars saved by the Hains-Weaver Patents.

MADE IN ALL SIZES

¼ yard Batch to 2½ yard Capacity.

You should have our New Catalogue. It's full of facts!

An officer of the above firm wrote to a prospective customer of our's as follows:—

"The operation of this mixer is simply gravity, doing away with hand labor or power, which is a great saving, but the most important thing to us is, after this mixer is properly set us as directed by the manufacturers, a concrete is produced, which in our opinion is the most perfect mixture obtainable by any method whatsoever."

Automatic Concrete Mixer Company, Inc. 428 Kinsley Ave. Providence, Rhode Island

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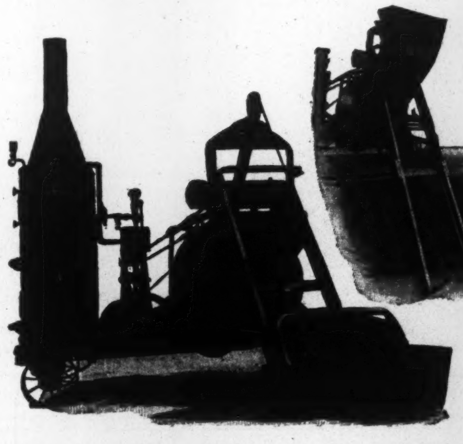


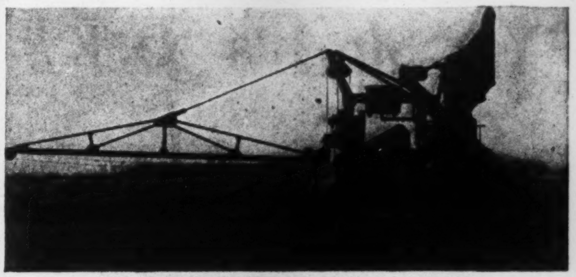
Foote Concrete Mixers

For twenty years FOOTE mixers have been giving satisfaction on all classes of building and paving work. They are made in many different sizes and with special equipment for unusual jobs. Send for the Foote Catalogue.

Address the Nearest Agent

Foote Concrete Machinery Co., 108 So. LaSalle St., **Chicago, Ill.**
Wilcox Bros., Inc., 26 Roosevelt Ave., **Binghamton, N. Y.**
E. J. McHarg & Co., 3 Crandall St., **Binghamton, N. Y.**
W. C. McAnlis, Imperial Hotel, **Detroit, Mich.**
C. W. Klapproth, 30 Church St., **New York, N. Y.**
Edward R. Bacon Co., 51 Minna St., **San Francisco, Cal.**
Hallidie Machinery Co., 122 King St., **Seattle, Wash.**
Hodson-Feenaughty Co., 309 East Yamhill St., **Portland, Ore.**

(Made by Foote Mfg. Co., Nunda, N. Y.)



The AUSTIN PAVER with Multi-Pedal Traction.

SAVE TIME!

Your profits from paving work will depend more upon your method of employing this valuable element than upon any other factor.

Consider the possible saving of five seconds on each half-yard batch in a ten-hour run. It means an additional 100 square yards of six-inch pavement for the day. Figured at $1.25 per square yard, the contractor gains $125 in his estimate for the day.

Now, these valuable five seconds are saved by the

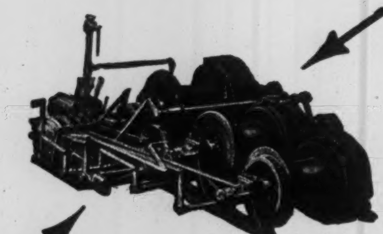
Austin Cube Paver

because the bucket holds the entire batch. Another five seconds are saved by the rapid operation of the wide-loading skip.

Besides these features, the Austin Paver has the cube principle of mixing, which insures thoroughness and speed, and the blue annealed high-carbon steel drum, which is typical of its durability and wearing qualities.

Write for Road Mixer Booklet No. 2.

Municipal Engineering & Contracting Company
Main Office, Railway Exchange, Chicago
New York City, 30 Church St. San Francisco, 473-485 Sixth St.
Agents wanted in open territory.

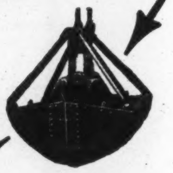


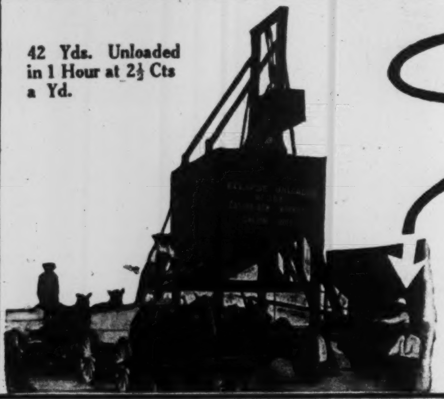
MEAD-MORRISON
MANUFACTURING COMPANY
Specialists in Machinery for Successfully
Handling Coal, Ore or Sand

MEAD-MORRISON MANUFACTURING CO.
126 Prescott St. East Boston, Mass.
Gentlemen:—Please send your catalogs.
Name..
Address...

LET US CO-OPERATE WITH YOU.

OUR ENGINEERS ARE AT YOUR SERVICE.





42 Yds. Unloaded in 1 Hour at 2½ Cts a Yd.

This One Man Does the Work of Ten Shovelers

Let him work for you

He is the operator of the Eclipse Portable Unloader—any unskilled man can be an operator. Besides the cost of 10 shovelers you can save team time—30 minutes on every load—by using to unload railroad cars to wagons or trucks the

ECLIPSE PORTABLE UNLOADER

It unloads five or more fifty-ton cars per eight-hour day, from wagons to trucks, for $5. It will do it for you. Make us prove it. Write now.

The Galion Iron Works & Mfg. Co., 107 East Main Street, Galion, Ohio, U. S. A.

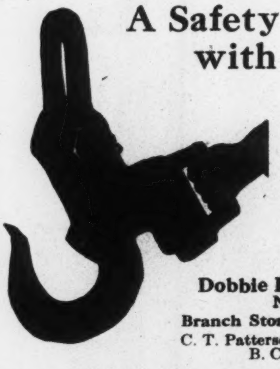
Yes Sir, It's "O.K."

O. K.
Reversible Builders' Hoist

Designed and built to meet the requirements of the modern building contractor. Unsurpassed in efficiency, reliability and durability. Very heavily built, with extra long bearings. The two friction clutches are provided with renewable asbestos linings that are oil and water proof. All control levers are within convenient reach of the operator. The differential brake is fitted with a ratchet and pawl. **Write us today for our latest Bulletin.**

O. K. Clutch & Machinery Co., Columbia, Penna.

A Safety Block with a Safety Lock

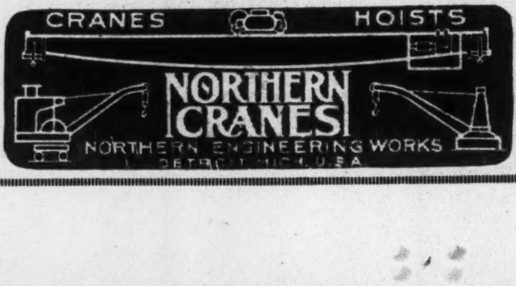


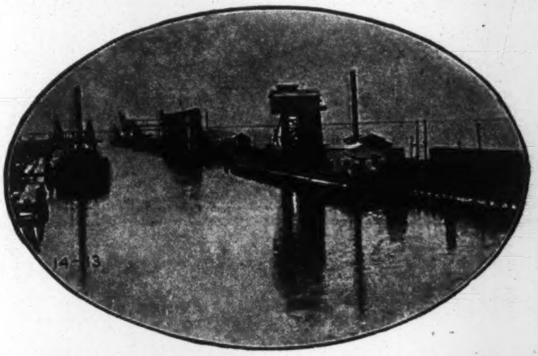
Note that with this block the load can't become detached accidentally. Load cannot be released till lock is pulled back by hand. A great protector of life and limb.

It's one of the things described in our new Catalog No. 18. Let us send you a copy NOW.

Dobbie Foundry & Machine Co.
Niagara Falls, N. Y.
Branch Stores: Pittsburgh and New York
C. T. Patterson & Co., New Orleans, La. Geo. B. Carpenter & Co., Chicago.

There Are—
BROWNING
Locomotive Cranes
On The Interesting Jobs
Sales Offices:
New York Philadelphia
Chicago San Francisco
The Browning Co. :: Cleveland





Docking Canal—Fort Tampa, Florida. Atlantic Coast Line R.R. Terminals

TWO phosphate rock elevators and coal handling bridge equipped with Hunt Machinery.

Three large *consecutive* orders from one careful buyer argues well for the service given by our machinery under the severest kind of operating conditions.

Cutting the cost of handling material has been our specialty for 40 years. Tell us *your* problem, and let us show you how our "Labor Savers" can help *your dividends*.

C. W. HUNT CO., Inc.

West New Brighton, N. Y., U. S. A.

61 Broadway, New York City. Fisher Bldg., Chicago
Evans Bldg., Washington

The Panama-Pacific International Exposition Company Chose from All Cranes the "Ohio"

to unload, handle and place all heavy exhibits and decorations.

Illustration shows the OHIO engaged in unloading Palm Trees weighing from 5 to 17 tons each, several hundred being distributed about the Exposition grounds.

Write for catalogue No. 5.

The Ohio Locomotive Crane Company

Mansfield St., Bucyrus, Ohio

30 Church St.,	New York
Fisher Bldg.,	Chicago
Home Life Bldg.,	Washington, D. C.
Oliver Bldg.,	Pittsburgh
Edward R. Bacon Co.,	San Francisco—Los Angeles
Contractors Equipment Co.,	Seattle, Portland
N. C. Walpole	Birmingham, Ala.
David Gaehr, 950 Rockefeller Bldg.,	Cleveland, O.
Industrial Engineering & Machy. Co	Montreal
Dominion Equipment & Supply Co.,	Winnipeg.

A 25-Ton Industrial Works Crane at Miraflores Locks—Panama Canal

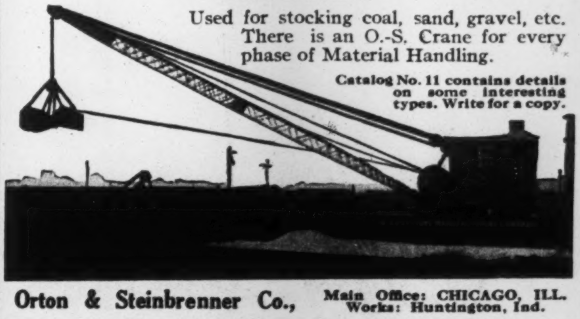
AT PANAMA
85% of all permanent structural steel work on the Panama Canal was handled by Industrial Works Cranes.
Find out why. Ask for Catalog 108.

Industrial Works, Bay City, Mich.

O.-S. 20-Ton Radial Truck Crane for Profitable Yard Service

Used for stocking coal, sand, gravel, etc. There is an O.-S. Crane for every phase of Material Handling.

Catalog No. 11 contains details on some interesting types. Write for a copy.



Orton & Steinbrenner Co., **Main Office: CHICAGO, ILL. Works: Huntington, Ind.**

LINK-BELT CRANES
For Dependable Service

A Link-Belt Crane is an all-around machine for general work around any plant. It may be arranged to handle hook block, self-filling grab bucket, drag line bucket, electric lifting magnet, or equipped with special boom for steam shovel attachment and pile driver.

LINK-BELT COMPANY
PHILADELPHIA, CHICAGO
NEW YORK

Traveling Cranes

For Power-House and every service. Electric and hand-power. Clearance diagrams and other information for initial layouts gladly furnished to engineers on request. Send for catalog.

We make Tainter Gate Hoists

Complete Foundry Plants

WHITING
FOUNDRY EQUIPMENT CO
HARVEY-ILL U.S.A

Cranes of All Kinds

HAYWARD
CLAM SHELL
BUCKETS

THE Hayward Class "E" Clam Shell Bucket is a most efficient machine for digging such materials as crushed stone, broken slag, gravel, packed sand, etc., and may be equipped with steel teeth for excavating in hard or rock filled soil.

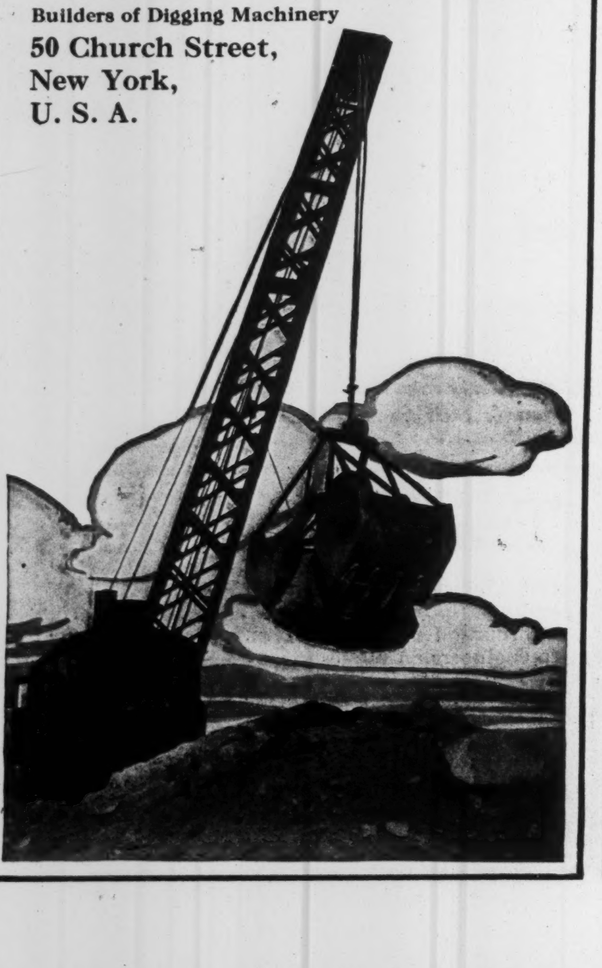
The illustration below is one of four machines used for changing the grade on the Long Island Railroad, East New York The Bucket is a Hayward Class "E" with Ore Bowl equipped with teeth. This type of bucket is particularly serviceable when the material to be dug contains a large percentage of gravel or boulders.

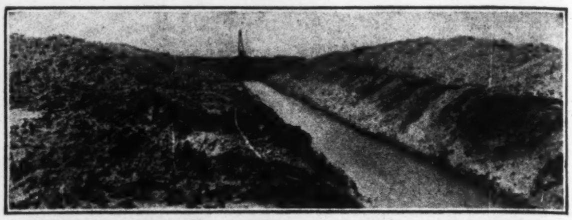
There are Hayward Buckets for digging and rehandling under all conditions. Tell us your particular problem and we will make recommendations and send you catalogues.

THE HAYWARD CO.

Builders of Digging Machinery

50 Church Street,
New York,
U. S. A.





It Walks to Work and Wades Right Through It

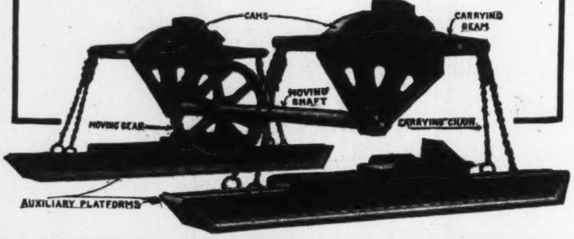
The Walking Traction of the Monighan Drag Line Excavator

Has effected savings of 25 to 50% in the cost of excavation by the ease and rapidity of handling it gives to the machine.

We are in a position to show you the machines that have made these records and to fully substantiate the records. The simple device shown below walks the machine to work over any soft ground—moves it to a new setting in 30 seconds and makes possible the use of a shorter boom and bigger bucket.

Just watch one machine on the job—we'll tell you the nearest.

Monighan Machine Company
2036 Carroll Ave. Chicago



Hydraulic Dredges?

We build them. One by us at Panama has pumped coral, sand and rock through 7200 ft. of pipe without relay. Dredges like that mean profit to you. **Write us today for details.**

Ellicott Machine Corporation
Baltimore Maryland

Builders of Hydraulic Dredges, Steel Vessels, Lighters and Car Floats. Spare parts always on hand for immediate shipments.

TRENCH MACHINES

We sell and lease All Kinds of Hoisting and Conveying Machines for Trench Work.

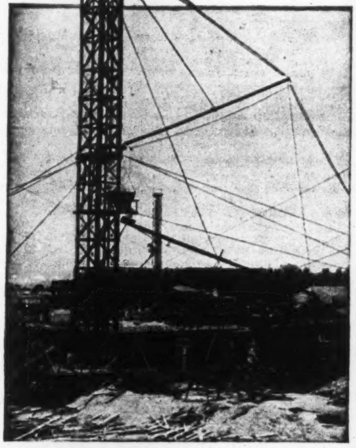
Catalog Sent Upon Request.

Carson Trench Machine Co., Boston, Mass.

BRANCH OFFICES: Rose Bldg., Cleveland; 348 James St., Montreal.

Parsons Trench Excavators

for excavating
Sewer, Water and Gas Main Trenches
Send for our latest Catalog
The Parsons Company, Newton, Iowa



One of the Concrete Towers Equipped with Yellow Strand Powersteel for Hoisting.

YELLOW STRAND

Power Steel Wire Rope Helps Build the New Mass. Institute of Technology

These new buildings will cover a site of 50 acres—their total area will be close to 90,000 square feet. Stone & Webster are the contractors handling hundreds of workmen with the system of a 1915 army. This job is made to spell Efficiency with a big capital "E."

Up to November 9th we had delivered to this job 12,000 feet of Yellow Strand Powersteel of various sizes. More will follow as the work progresses. Strength, flexibility, "life," dependability, was what the buyrs were looking for and demanded. They selected Yellow Strand! Enough said.

Catalog 64 on request.

Broderick & Bascom Rope Co.

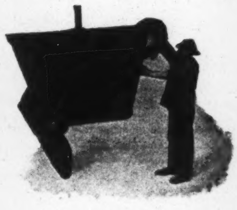
New York ST. LOUIS Seattle

Factories: ST. LOUIS and SEATTLE

Why Not Get in Line With the Leaders?

Leading contractors have saved money in excavating, concrete and general hoisting costs by using

Controllable Bottom Dump Bucket (Patented)



"Excelsior" Bottom Dump Concrete Bucket (Patented)

STUEBNER

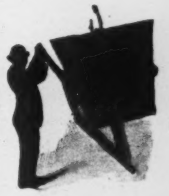
Hoisting Buckets

Unexcelled in a single detail. Leaders in efficiency and durability.

Our full line includes Coal Hoisting, Mining, Excavating and Bottom Discharge Buckets—Steel Skips—Side and End Tip, Rotary Dump, Drop Bottom and Boiler Room Cars—Asphalt, Tar and Lead Melters, Hand Dump Carts, etc., etc.

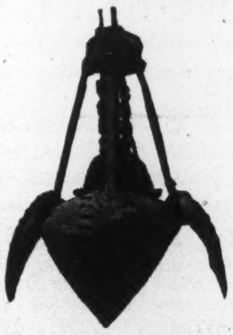
Catalog "N" is yours on request. Write.

Self-Dumping and Self-Righting Turnover Bucket



"Invincible" Bottom Dump Bucket (Patented)

G. L. Stuebner Iron Works **West 11th St., Long Island City New York, N. Y.**



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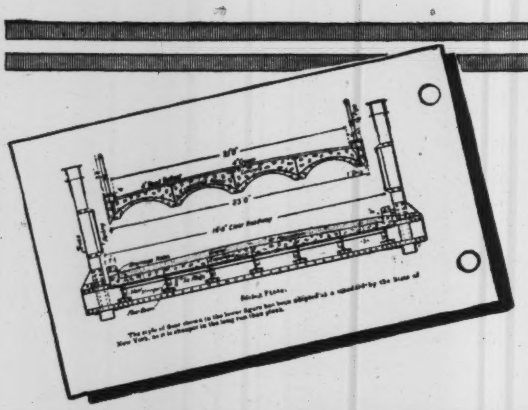

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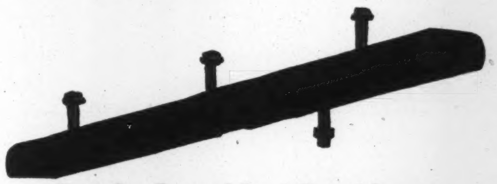

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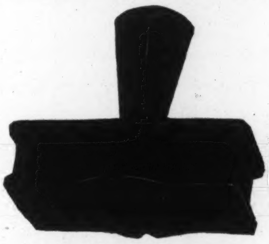

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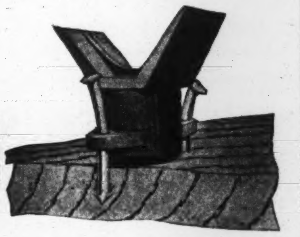

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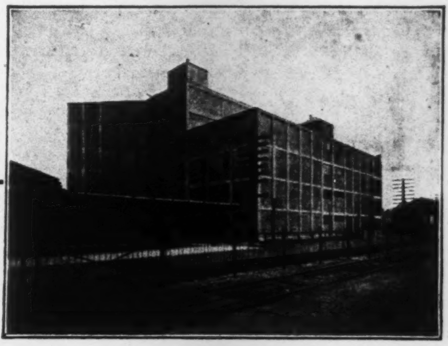

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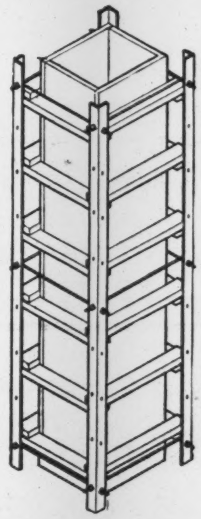

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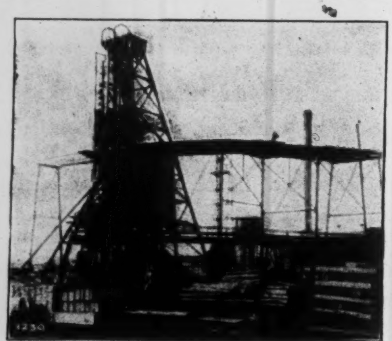

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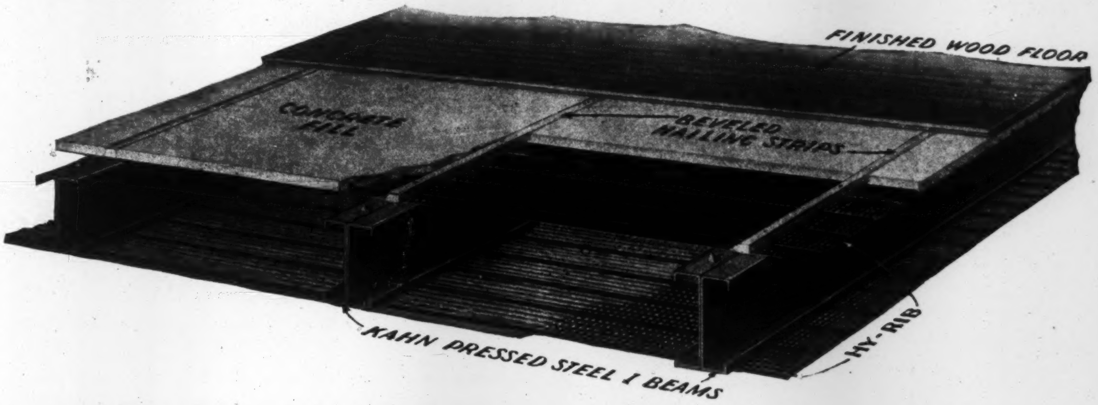

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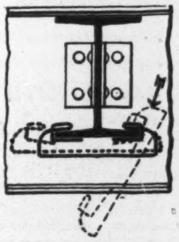

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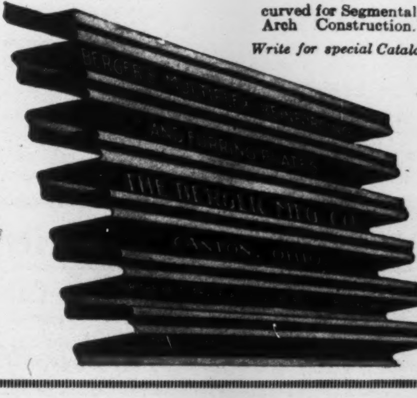

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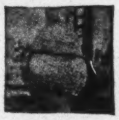

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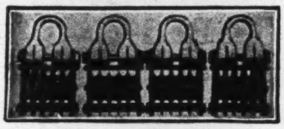

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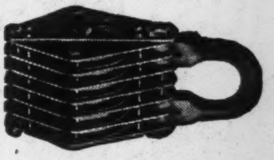

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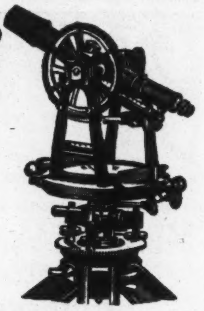

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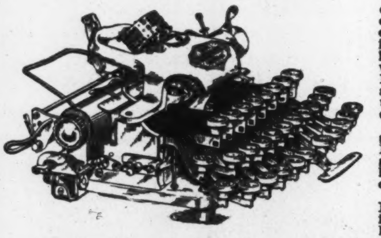

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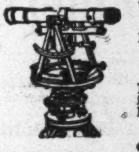

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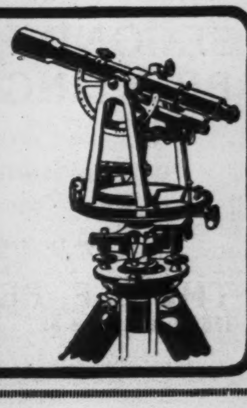

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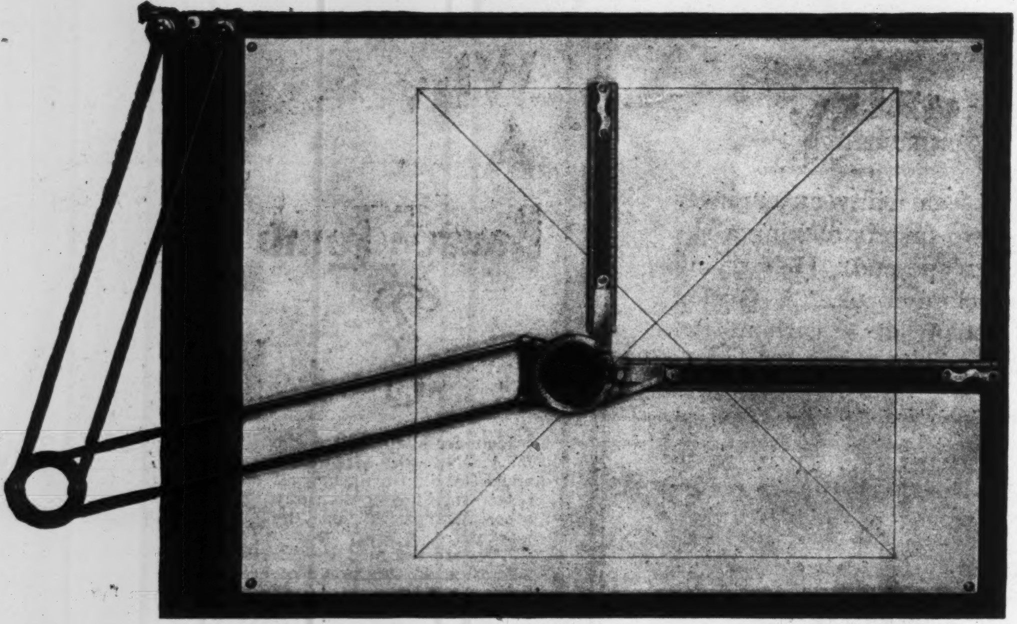

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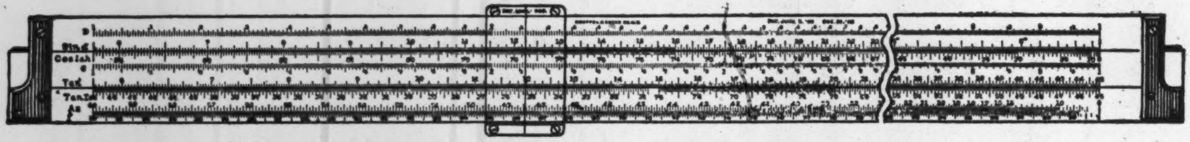

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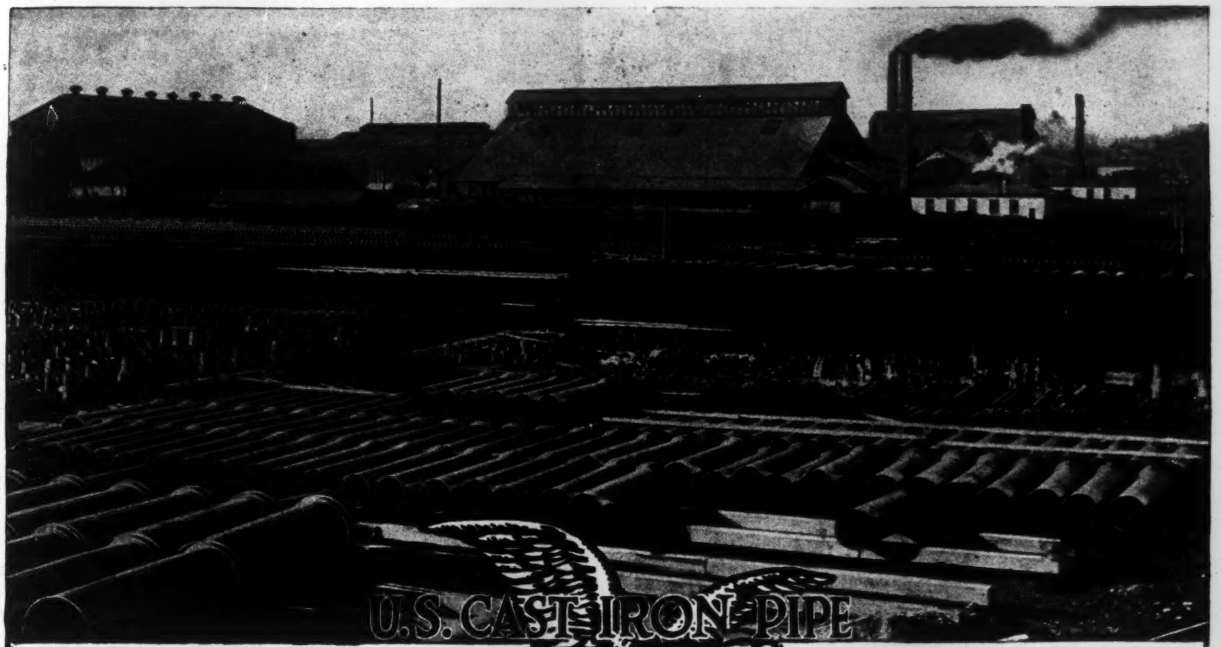

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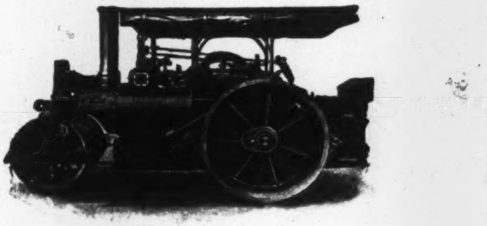

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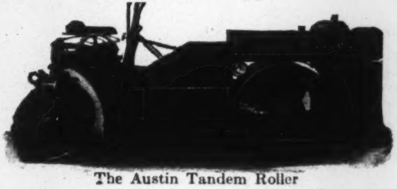

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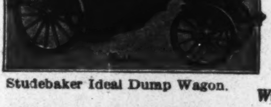

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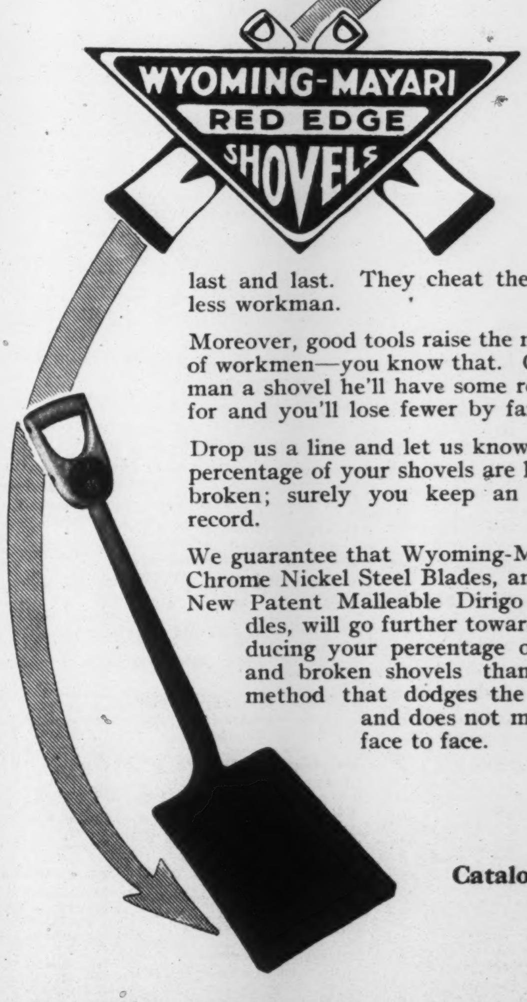
Objection No. 2

ANOTHER objection to *good* shovels is, "Too many shovels are carelessly lost or broken."

There's something in this—but not much. Why point your efforts down hill to suit careless workmen? Good business sense says that it's better to buy the right shovels and insist on greater care of them.

If you buy Wyoming-Mayari Red Edge Shovels you will have to issue less than half the number—they last and last and last. They cheat the careless workman.



Moreover, good tools raise the morale of workmen—you know that. Give a man a shovel he'll have some respect for and you'll lose fewer by far.

Drop us a line and let us know what percentage of your shovels are lost or broken; surely you keep an exact record.

We guarantee that Wyoming-Mayari Chrome Nickel Steel Blades, and our New Patent Malleable Dirigo Handles, will go further towards reducing your percentage of lost and broken shovels than any method that dodges the issue and does not meet it face to face.

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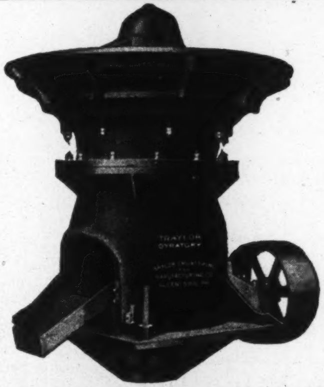

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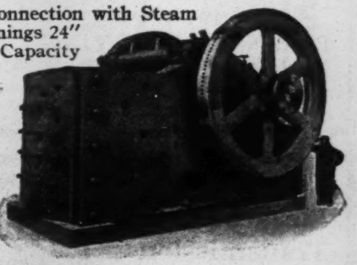

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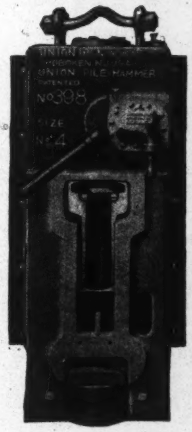

For Driving Round Wood Piles

For Driving Steel Sheeting

Hammers to Drive Anything

There's a Union Pile Hammer to drive anything that can be driven. We have never turned down a proposition as being out of the range of Union Pile Hammers. Our ten sizes of Hammers have a driving range from the lightest wood and steel sheeting up to 36-ton concrete piles.

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Union Iron Works
West Shore Station, Hoboken, N. J.
Manufacturers of Excavating Machinery and Contractors' Equipment

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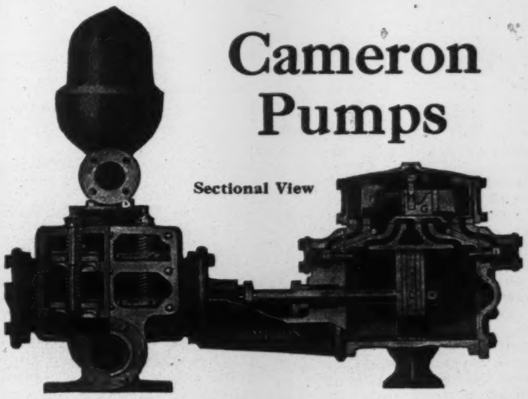
The Slogan of the Cameron—"Character: The Grandest Thing"

Cameron Pumps



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Nothing experimental in their design, yet *different* from other pumps. Not one unnecessary part is found in the Cameron design. Fewer working parts—more simplicity—longer service —greater efficiency than is found in other pumps. Tested for over half a century.

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A. S. Cameron Steam Pump Works
11 Broadway, New York 62 **Offices the World Over**

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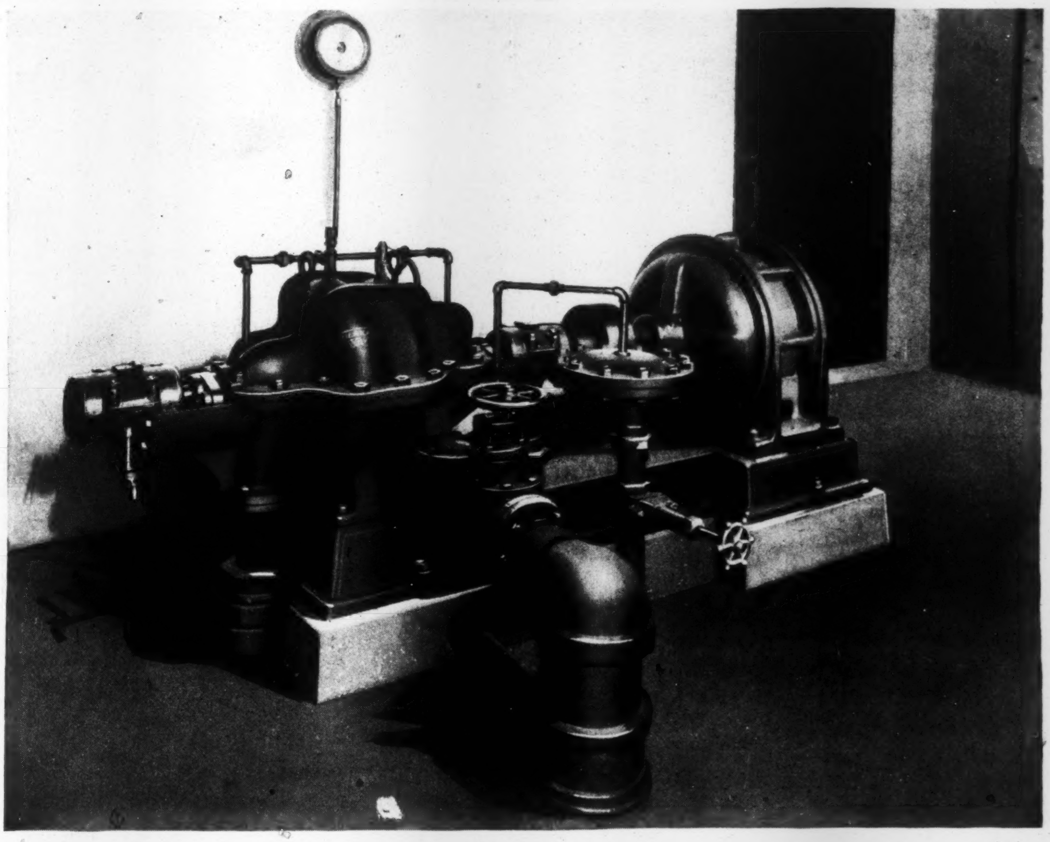


Combining Reliability with Economy in a Waterworks Installation

The City of Roanoke, Virginia, is furnished water by the Vinton-Roanoke Water Co., which receives the supply partly by a pipe line from storage in the mountains, and partly from a large spring in the side of a hill near the city.

To replace a steam pump at the spring, an "American" No. 2½, Type KMD, 2-stage, split shell, enclosed impeller, bronze fitted centrifugal pump was installed, designed to deliver 210 gallons per minute, or 3,000,000 gallans a day, against a total head of 230 feet. This pump is driven by a 25 H.P., 3 phase, 60 cycle, 220 volt, 1850 R.P.M., squirrel cage motor, and is primed by automatic primer.

The accompanying illustrations show exterior and interior views of the pump house, also a small concrete house containing a reducing valve, which reduces to 60 lbs. the pressure from the mountain supply, obtained about 600 feet above the pumping station and five miles distant. This valve is about 90 feet above the pumping station, and the pump, therefore, has to deliver against a pressure ranging from 95 to 110 lbs., with varying capacity, depending upon the demand of the system.

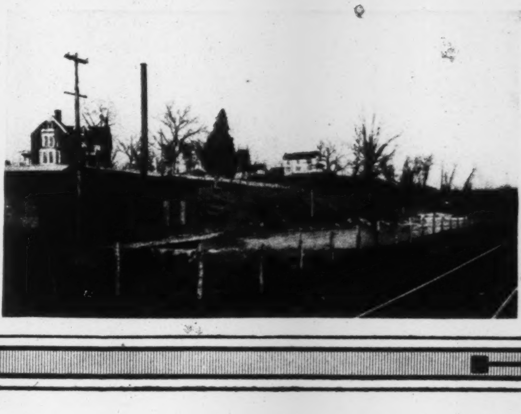
There is a float switch on the spring, which automatically stops the pump when the water is lowered to the end of the suction pipe and starts it again when the water again rises.

This pump has been in continuous 24 hours per day use since May 23, 1914, and the power cost has not varied over $2.00 above or below $216 per month in any month.

The pumping station is locked at all times except when inspected once a day. It is so much more economical than the steam plant, that the old plant is maintained only as an auxiliary.

This is only an example of the economy and reliability of "American" Centrifugal Pumps in water works installations.

Catalog by first mail if you are interested. Ask for Catalog 132.



The American Well Works

General Office and Works: - - Aurora, Ill., U. S. A.
Chicago Office: - - - First National Bank Building

Wood Block Pavement

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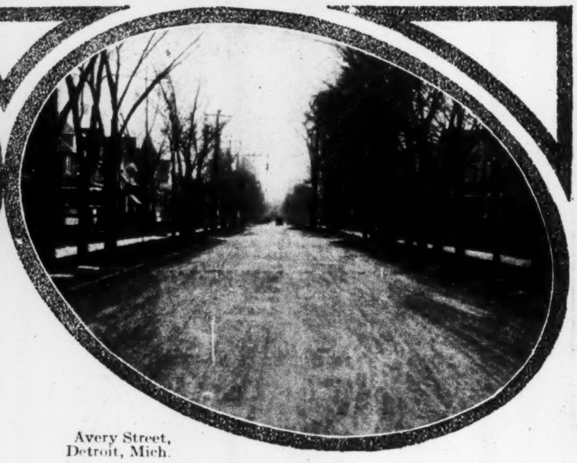
South Norwalk, Conn.



Avery Street,
Detroit, Mich.

Pleasing the property owners—

WHERE new pavements are to be built by assessment on the abutting property the attitude of the property owners has an important bearing on the selection of the type of pavement to be used.

Although Wood Block pavement is by no means the cheapest in its initial cost, it has proved many times to be the pavement on which the property owners most readily agree.

Property owners value its quietness under traffic, which improves the value of their land. This is true both of office building districts, such as lower New York, and in residential streets. They like Wood Block pavement also because they know that it will last longer than any other pavement—even granite.

Mr. J. H. Weinburger, the engineer in charge of the pavements of Queens Borough, New York City, says that the Wood Block pavements in his borough "have been so uniformly satisfactory that in many instances property owners are petitioning that Creosoted Wood Block be used for streets of both heavy and light traffic."

Ever since the first Wood Block pavement was laid in New York, in 1903, there has been a steadily increasing demand for it all over the city. The first strip of Wood Block pavement on Warren Street brought in a stream of petitions from nearby property owners for the extension of "the silent pavement." It is easy to believe that such pressure, coming from the people who bear the cost, will eventually bring New York to a parity with London, which has 300 miles of wood pavement, and Paris, which has 400 miles.

Booklet free on request.

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